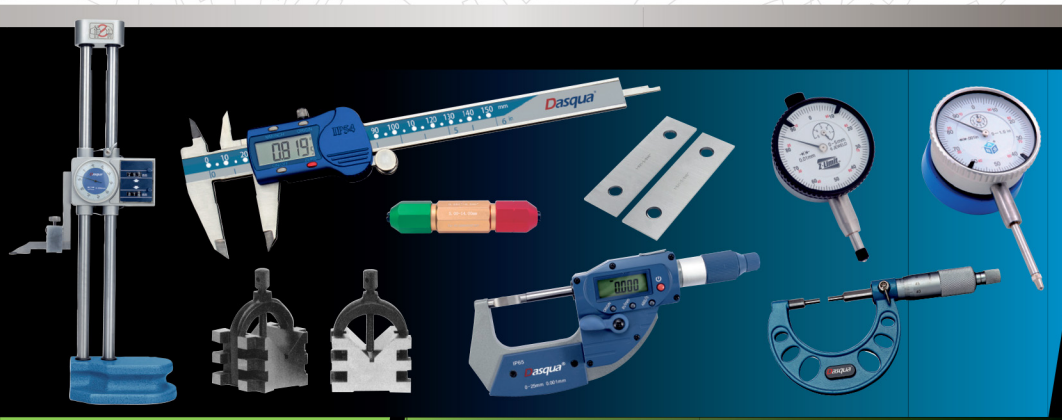
PENN Tool Co.

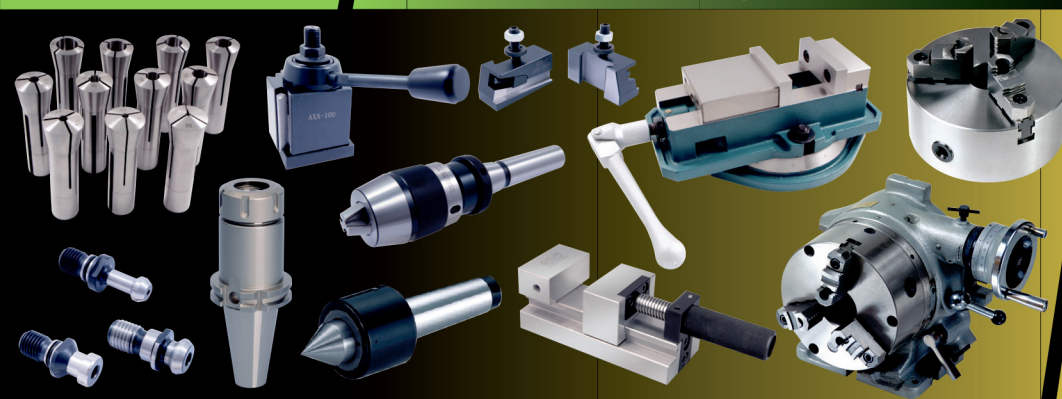
Your Partner In Precision Since 1968



PRECISION MEASURING TOOLS

CUTTING & CARBIDE TOOLS





MACHINE TOOL ACCESSORIES

SHOP SUPPLIES





WOODWORKING

CAT. No. 35N
Effective 2027

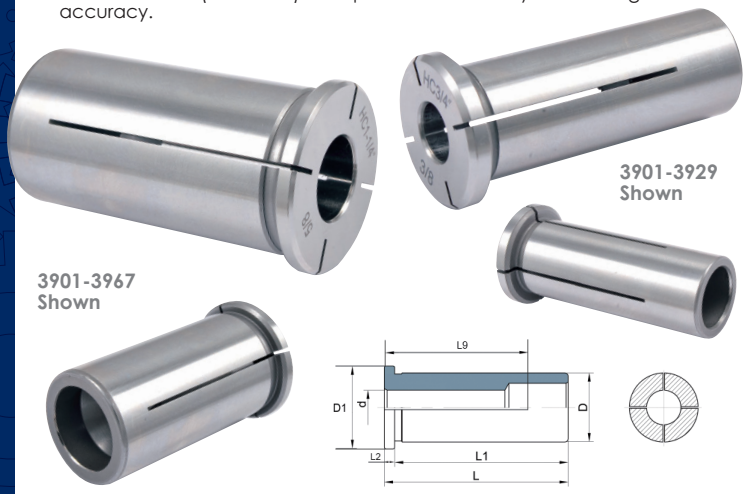
Toll Free Phone
800-526-4956

Web
www.penntoolco.com

NEW PRODUCTS

HYDRAULIC CHUCK REDUCTION SLEEVES

- **High-Precision Hydraulic Reduction Sleeve** – Allows a single hydraulic chuck to accommodate multiple tool shank sizes, reducing toolholding costs.
- **Ultra-Low Runout Accuracy** – Precision manufactured with maximum T.I.R. ≤ 0.00012" (0.003 mm) for superior concentricity and cutting accuracy.
- **Premium Tool Steel Construction** – Made from high-quality tool steel for durability, stability, and long service life in demanding CNC environments.
- **Strong Clamping & Vibration Control** – Maximizes gripping force inside the hydraulic chuck, improving surface finish and extending tool life.
- **Through-Coolant Capable Design** – Sealed construction supports through-coolant applications, directing coolant efficiently to the cutting edge.



Max. T.I.R. ≤ 0.00012"/0.003mm

Item#	O.D. (D)	I.D. (d)	Bore Length (L9)	Sleeve Length (L1)	OAL (L)
3901-3923	3/4"	3/16	1.69"	1.99"	2.10"
3901-3925		1/4	1.60"		
3901-3927		5/16	1.60"		
3901-3929		3/8	1.60"		
3901-3933		1/2	1.60"		
3901-3937		5/8	1.60"		
3901-3955	1-1/4"	1/4	1.97"	2.40"	2.54"
3901-3957		5/16	1.97"		
3901-3959		3/8	1.97"		
3901-3963		1/2	2.14"		
3901-3967		5/8	2.14"		
3901-3971		3/4	2.14"		
3901-3975		1	2.14"		

KEYLESS DRILL CHUCK & R8 ARBOR SETS

- **Direct R8 Spindle Mount:** Matched set includes keyless chuck and precision-ground R8 arbor with 7/16"-20 drawbar thread.
- **Self-Tightening Grip:** Automatically increases gripping force as torque increases to eliminate bit slippage—no chuck key required.
- **Hardened & Precision Ground:** Hardened steel construction ensures high accuracy, low runout, and extended service life.
- **Versatile Options:** Available in Ultra Precision and Heavy-Duty grades for 1/2" and 5/8" capacities.



ULTRA PRECISION

Item#	Capacity	Taper Mount	Arbor Included
9999-0100	1/32-1/2"	JT33	JT33-R8
9999-0102	1/32-5/8"	JT6	JT6-R8

HEAVY DUTY

Item#	Capacity	Taper Mount	Arbor Included
9999-0106	1/32-1/2"	JT33	JT33-R8
9999-0108	1/32-5/8"	JT6	JT6-R8

MINI UNIVERSAL ARM W/FINE ADJUSTMENT

- Unique central locking mechanism.
- Dovetail groove for clamping test indicator.
- Indicator stem hole: 8mm
- Fine adjustable knob.
- Arm length 6"
- Thread side: M8x1.25x8mm

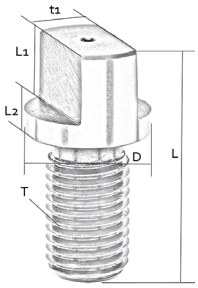
4401-0116



MORSE TAPER DRAWBAR TANG ADAPTERS

- Converts Morse Taper tang-type holders from threaded drawbar use.
- Precision machined from hardened tool steel for wear resistance.
- Fits standard MT1 through MT5 tapers in inch and metric threads.





TANG FOR DRAW BAR THREAD TYPE HOLDERS

INCH SIZES

Item#	Morse Taper	Thread	Dimensions (mm) D	L	L1	L2
3906-0795	MT2	3/8"-16	12	30	7	4
3906-0796	MT3	3/8"-16	17	40	12	4
3906-0797	MT4	5/8"-11	24	46	13	5

METRIC SIZES

Item#	Morse Taper	Thread	Dimension (mm) D	L	L1	L2
3900-0789*	MT1	M6x1.00	9.5	27	7.5	3
3900-0790	MT2	M10x1.50	12	30	7	4
3900-0791	MT3	M12x1.75	17	40	12	4
3900-0792	MT4	M16x2.00	24	46	13	5
3900-0793*	MT5	M24x3.00	34	47	14	5

* Limited Supply

Dasqua® ROCKWELL DIAL HARDNESS TESTER (3R/HR-150A)

- The high quality casting and fine craftsmanship ensure accurate, consistent readings.
- Manual testing process, no need for electric controlling.
- **Tri-Scale Testing Capability:** Easily switches between **60 kg, 100 kg, and 150 kg** total test loads to accommodate HRA, HRB, and HRC hardness scales.
- **Classic 3R Manual Precision:** Reliable, high-precision dial indicator requires no external power supply—ideal for demanding workshop and heat-treatment environments.
- **Complete Accessory Package:** Includes a diamond penetrator, 1/16" steel ball penetrator, 5 standard test blocks for immediate calibration, and multiple testing anvils.

This hardness tester is used for detemining Rockwell hardness of hard alloys, quenched and unquenched steels.

NEW

6720-1005
Weight: 200 Lbs.



DIMENSIONS

Selectable Load Range	150 kg (1471N)
Load range	60 100 150kg (588.4N,980.7N,1471N)
Initial range load	10 kg (98.07N)
Maximum test height	170m m (6-3/4")
Depth of throat	130mm (5-1/4")
Maximum depth of spindle below base	50mm (2")
Size of base	240x465mm (7"-18")
Machine height	630mm (24-1/2")
Weight (approx)	75kg (200lbs)

STANDARD ACCESSORIES

Large testing tablecpIS0m/m (S-3/4")	1
Small testing tablecp62m/m (2-3/8")	1
V-block anvilq:>58 (2-3/16")	1
Diamond penetrator 120°	1
Steel ball penetrator 1/16"	1
Replacement steel ball 1/16"	5
Rockwell A standard test block	1
Rockwell B standard test block	1
Rockwell C standard test block	1
Rockwell C standard test block	1
Rockwell C standard test block	1
Screwdrivers	2
Level adjusting leg	3
Accessory box	1
Dustproof plastic cover	1
Operation manual	1



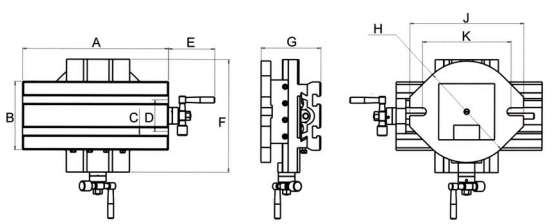


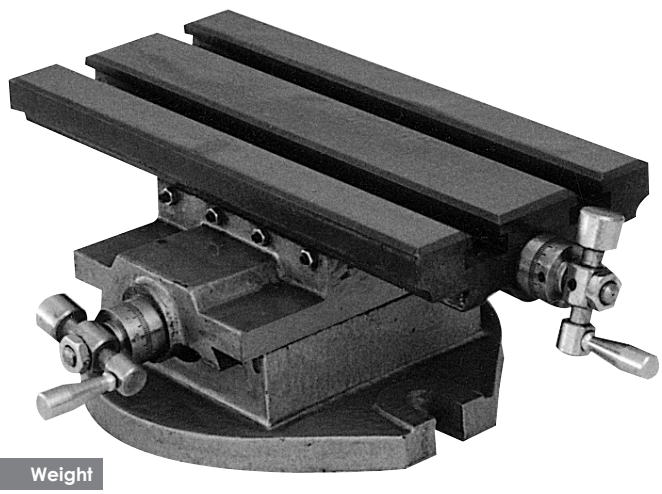


5-1/2 X 12" COMPOUND SLIDE TABLE

- A heavy, rugged slide used in positioning, milling, drilling, microscope viewing and staging.
- Adjustable bases for heavy loads, small jig boring, precision cut-off.
- T-slot Width: 5/8"

3906-0027





Unit: Inch

A	B	C	D	E	F	G	H	J	K	X Travel	Y Travel	Weight
12	5.5	5/8	2.5	3	9	4.5	8	9	7.6	8	5	40 Lbs.

Fritzfurt® 0-6" IP54 DIGITAL ELECTRONIC CALIPER & MACHINIST POCKET RULE SET

IP54 COOLANT & FLUID RESISTANT

mm / in / F

Battery + CR2032

The Fritzfurt Digital Caliper provides fast, accurate measurements for machining, metalworking, automotive repair, woodworking, inspection and general workshop applications. Its large LCD screen clearly displays inch, metric or fractional readings, while the internal jaws, external jaws and depth blade allow users to perform four common measurement types with one tool.



- **IP54 Coolant & Dust Protection:** Engineered to resist shop coolant, fluid exposure, and dust in heavy machining environments.
- **Large 3-Mode LCD Display:** Instant toggling between Inch, Metric, and Fractional (1/128") readings.
- **4-Way Precision Measurement:** Quickly measures outside, inside, depth, and step dimensions with 0.0005" / 0.01mm / 1/128" resolution.
- **CHILD-RESISTANT BATTERY COVER** Screw-Secured for Enhanced Safety & Compliance (Tool Included)
- **Set Includes:** 0-6" IP54 digital caliper, 6" stainless pocket rule, battery installation screwdriver, spare CR2032 battery, instruction manual, and fitted protective case.

2019-0005

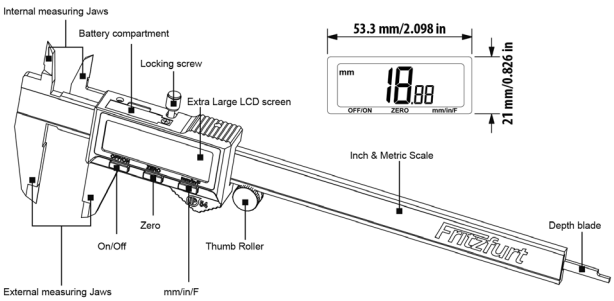
INCH/METRIC/FRACTION
0.0005"/0.01mm/1/128" RESOLUTION



FREE 6" STEEL POCKET RULE !

Specifications

Measuring Range	0-6" (0-150 mm)
Resolution	0.0005"/ 0.01 mm/1/128"
Accuracy: 0-3.94"	±0.001" (±0.02 mm)
Accuracy: 3.94-7.87"	±0.001" (±0.03 mm)



VERTEX® 8 PC NT30 COLLET CHUCK - WITH 7 PC OZ-25 COLLETS

*The **VERTEX NT30 OZ-25 Collet Set** is built for machinists who need more gripping power and rigidity than standard ER collets can deliver. Engineered specifically for heavy-duty milling and drilling, the OZ-25 taper design prevents tool pull-out under heavy side loads.*



- **Heavy-Duty Holding Power:** OZ-25 collets feature a shallow taper designed for massive clamping force and rigidity—ideal for heavy milling cuts without tool slippage.
- **Complete 8-Piece Set:** Includes 1 NT30 shank chuck, 7 OZ-25 collets (1/4", 5/16", 3/8", 1/2", 5/8", 3/4", 1"), 1 spanner wrench, and a fitted case.
- **Precision Machined:** Made in Taiwan from hardened alloy steel for low runout, long tool life, and consistent accuracy.
- **Full Range:** Covers common tool shank sizes from 1/4" all the way up to 1".

Why Choose OZ-25 (EOC-25) Collets?

- **Superior Clamping Force:** The shallow taper angle (around 1:10 / ~2°51') creates massive mechanical clamping power compared to standard ER collets, virtually eliminating tool slippage during heavy cuts.
- **Exceptional Rigidity & Chatter Reduction:** The longer body and wider contact area provide extreme rigidity, dampening vibration and significantly improving surface finish on aggressive milling passes.
- **Heavy-Duty Milling Focus:** While ER collets are great for all-around light tooling, OZ/EOC collets are built specifically for heavy side loads, making them the preferred choice for heavy roughing, large end mills, and rigid drilling.

RUNOUT (COLLET INSTALLED) ≤ 0.0004"





MADE IN TAIWAN

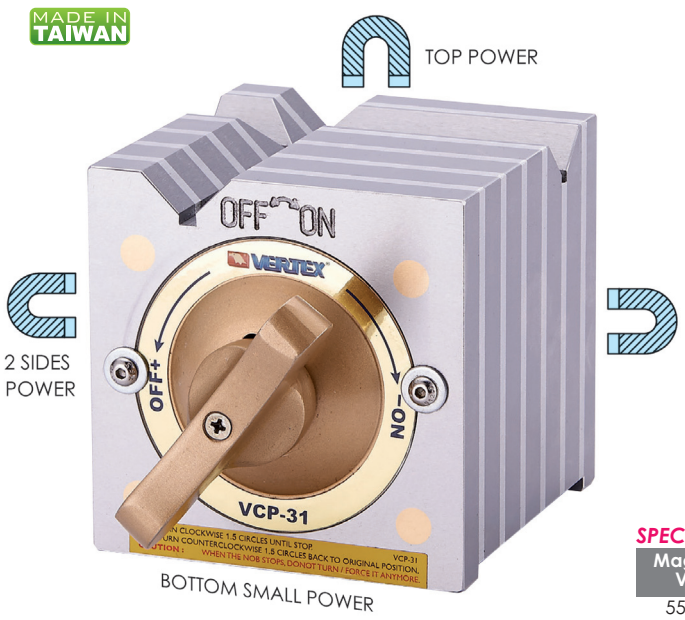
8 PC SET (1/4~1")
3901-5570
Weight: 8 Lbs.

Set Includes:

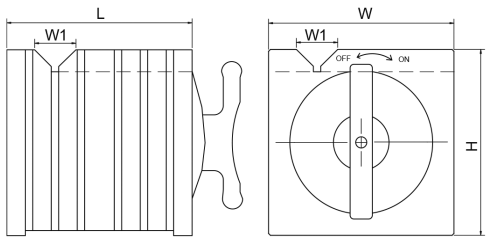
- 1- NT30 NMTB shank Collet Chuck
- 7 - OZ-25 Collets: 1/4, 5/16, 3/8, 1/2, 5/8, 3/4 & 1"
- 1- Wrench
- 1- Fitted Case.

VERTEX® PRECISION MAGNETIC 90° SQUARE BLOCK

- **Made in Taiwan** – High Quality & Exceptional Value: Precision manufacturing delivers consistent accuracy and durability comparable to premium brands at a more competitive price point.
- **Multi-Surface Magnetic Power (Top, Bottom & Sides)** – Provides strong, flexible holding for multiple setups and orientations.
- **High Magnetic Force (Up to 110 lbs. on Base)** – Ensures secure clamping for improved machining accuracy and safety.
- **Precision 90° Square Design** – Maintains accurate right-angle positioning for reliable inspection and machining.
- **V-Groove for Round Workpieces** – Holds cylindrical parts securely for grinding, drilling, and layout work.
- **On/Off Magnetic Control** – Quick engagement and release improve setup efficiency and ease of use.
- **Rigid Steel & Aluminum Construction** – Maximizes magnetic transfer while keeping the unit durable and lightweight.
- Used for precision holding of flat and round workpieces at 90° angles during machining, inspection, and layout operations.



3402-0985
Weight: 14 Lbs.



SPECIFICATIONS

Mag. Power of V Groove	Mag. Power of Base	V	H	W	L	W1
55Lbs/25kgf	110Lbs/50kgf	0.28~0.87"	3.94"	3.94"	3.94"	1.02"

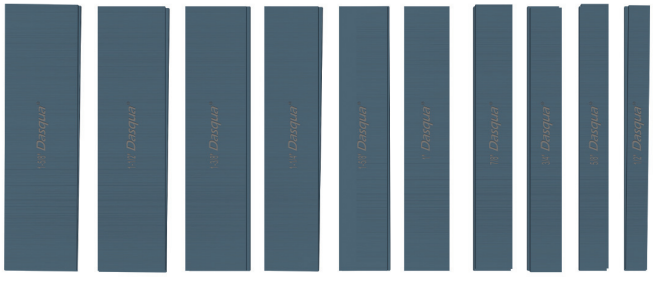
Dasqua® 1/32" ULTRA THIN STEEL 20 PC PARALLEL SETS

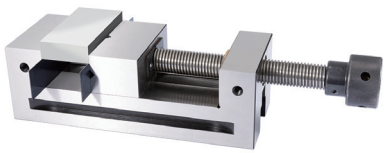
- **Ultra Thin 1/32" Parallels** – Ideal for precision setup and workholding where standard parallels are too thick.
- **Precision Ground Accuracy** – Parallelism held to ±0.0001", ensuring accurate height and repeatable setups.
- **High-Quality Steel Construction** – Made from fine-quality steel, stress relieved to prevent distortion and maintain long-term accuracy.
- **Hardened for Durability** – RC 50–55 hardness delivers excellent wear resistance for daily shop use.
- **20-Piece Set with Storage Case** – Includes a wide range of sizes, neatly organized in a fitted storage case for easy access.
- Available in 3 lengths choose from 3", 4" or 6" OAL to fit standard vises & set up fixtures.

ACCURACY +/- 0.0004"

DIMENSIONS
1/32 x 1/2"
1/32 x 9/16"
1/32 x 5/8"
1/32 x 11/16"
1/32 x 3/4"
1/32 x 13/16"
1/32 x 7/8"
1/32 x 15/16"
1/32 x 1"
1/32 x 1-1/16"
1/32 x 1-1/8"
1/32 x 1-3/16"
1/32 x 1-1/4"
1/32 x 1-5/16"
1/32 x 1-3/8"
1/32 x 1-7/16"
1/32 x 1-1/2"
1/32 x 1-9/16"
1/32 x 1-5/8"
1/32 x 1-11/16"





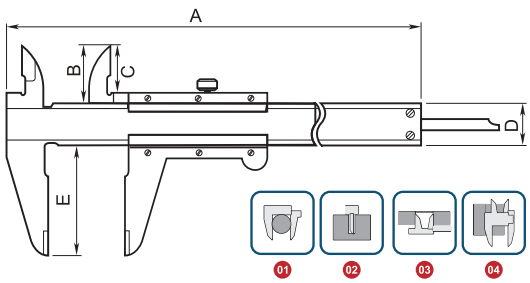


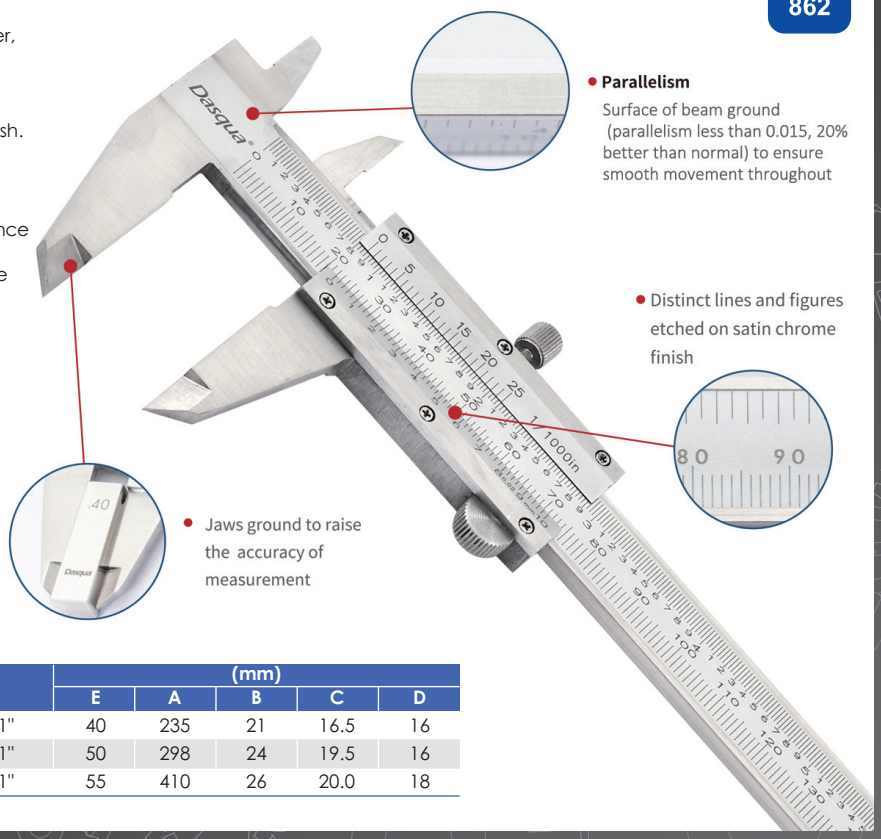
20 PAIR SET 3" LENGTH	20 PAIR SET 4" LENGTH	20 PAIR SET 6" LENGTH
8201-0035	8201-0040	8201-0045

Dasqua® VERNIER CALIPERS-LOCKING SCREW

DIN 862

- 4 usages for measuring: outside diameter, inside diameter, step and depth.
- Made of solid stainless steel.
- Strictly made in accordance with DIN862.
- Distinct lines and figures etched against satin chrome finish.
- With locking screw for stable reading.
- Dual reading scales on vernier scale.
- Accuracy .0015"/.03mm.
- Ground and lapped measuring face provides wear resistance and long life.
- Ralsed sliding surface-helps prevent defacement of scale graduations.
- Case included.





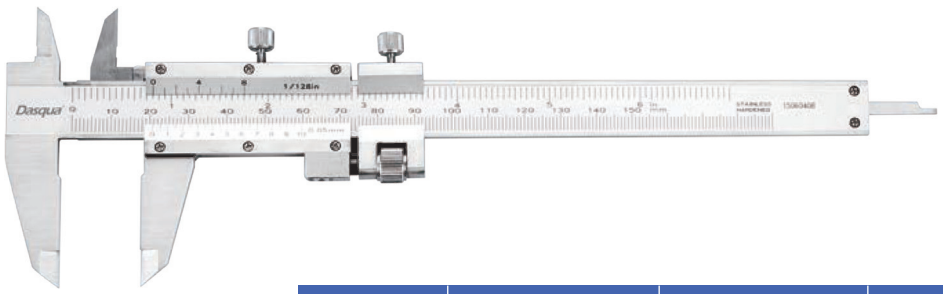
Item#	Range	Graduation	(mm) E	A	B	C	D
1550-2005	0-6"/0-150mm	0.02mm/0.001"	40	235	21	16.5	16
1550-2010	0-8"/0-200mm	0.02mm/0.001"	50	298	24	19.5	16
1550-2015*	0-12"/0-300mm	0.02mm/0.001"	55	410	26	20.0	18

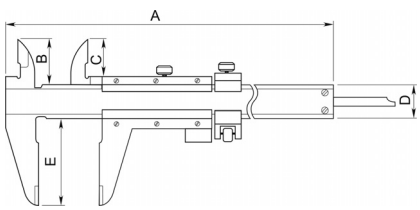
* Limited Supply

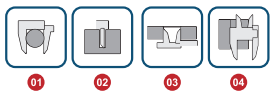
Dasqua® VERNIER CALIPERS WITH FINE ADJUSTMENT

DIN 862

- 4 usages for measuring: outside, inside, step and depth.
- Made of solid stainless steel.
- Strictly made in accordance with DIN862.
- Distinct lines and figures etched against satin chrome finish.
- With locking screw for stable reading.
- With fine adjustment.



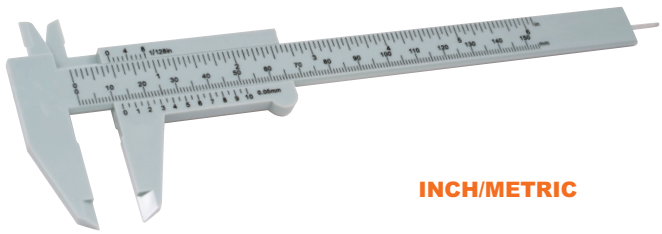




Item#	Range	Graduation	(mm) A	B	C	D	E	Accuracy
1490-7005	0-6"/0-150mm	0.001"/0.02mm	235	21	16.5	16	40	0.03mm
1490-7015	0-12"/0-300mm	0.001"/0.02mm	410	26	20.0	18	55	0.03mm

PLASTIC VERNIER CALIPER

- Made from durable plastic material.
- 3-way measurement: Inside, outside and depth
- Nice promotion item packed with blister card.



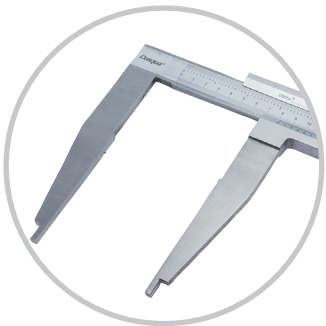
INCH/METRIC

Item#	Range	Graduation
4100-0001	0-6"/0-150mm	1/128"/ 0.05mm

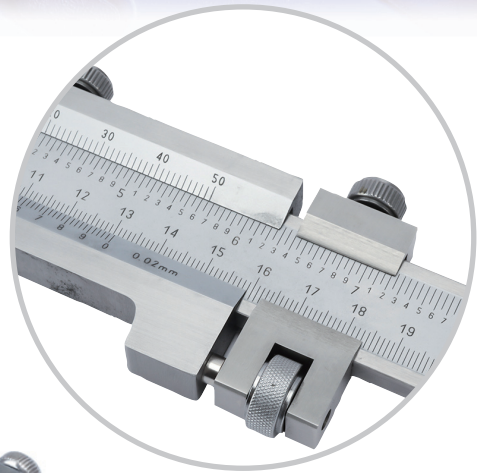
Dasqua® VERNIER CALIPERS WITH LONG JAWS & FINE ADJUSTMENT

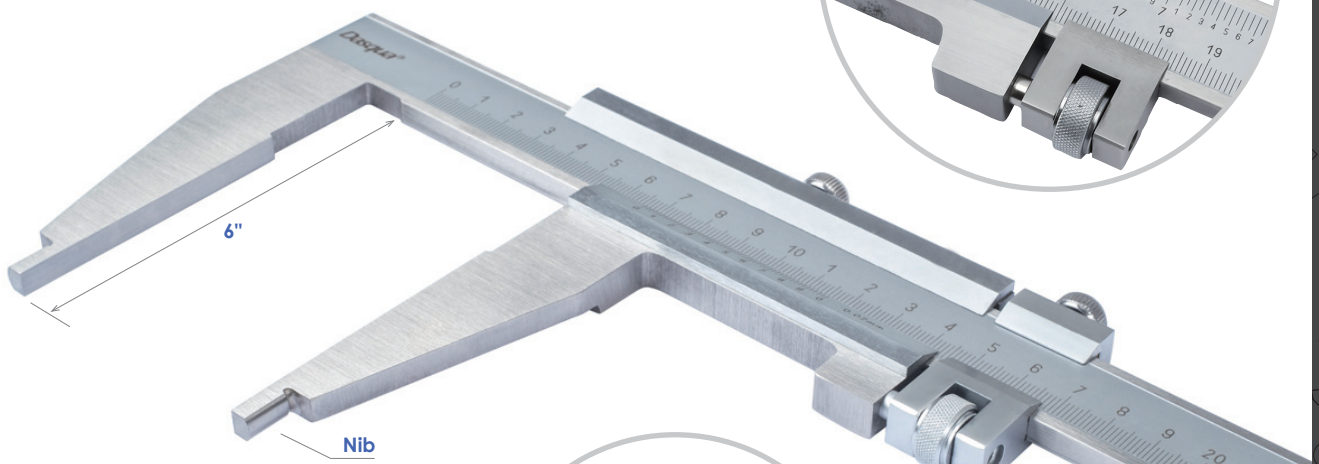


- **Large Measuring Range:** for versatile use on various objects.
- **Precise Graduation:** for highly accurate readings.
- **Nib Style Jaws:** Specifically designed to access grooves, recesses, and hard-to-reach areas.
- **Fine Adjustment:** The thumb wheel allows for precise measurements and fine-tuning.
- **Durable Construction:** Made from stainless steel for long-lasting performance and resistance to wear.
- **Protective Case:** Includes a fitted ABS case for safe storage and transport.

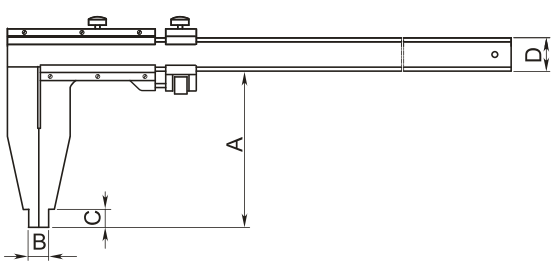


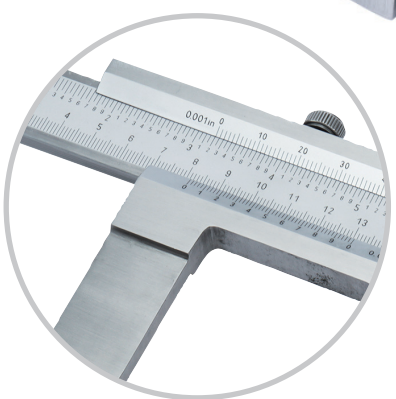






INCH/METRIC
GRADUATION: 0.001"/0.02MM





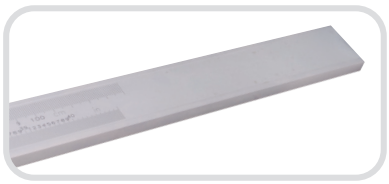


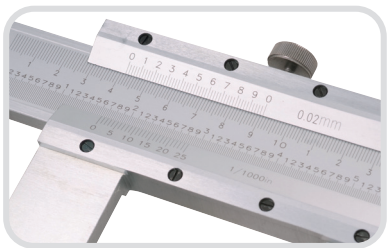
Item#	Range	Graduation	Accuracy	(mm)			
				A	B	C	D
1310-0030	0-12"/0-300mm	0.001"/0.02mm	±0.0035"/±0.09mm	90	10	17	10
1310-0006	0-20"/0-500mm	0.001"/0.02mm	±0.00472"/±0.12mm	150	10	12	32
1310-0011	0-24"/0-600mm	0.001"/0.02mm	±0.00472"/±0.12mm	150	10	12	32

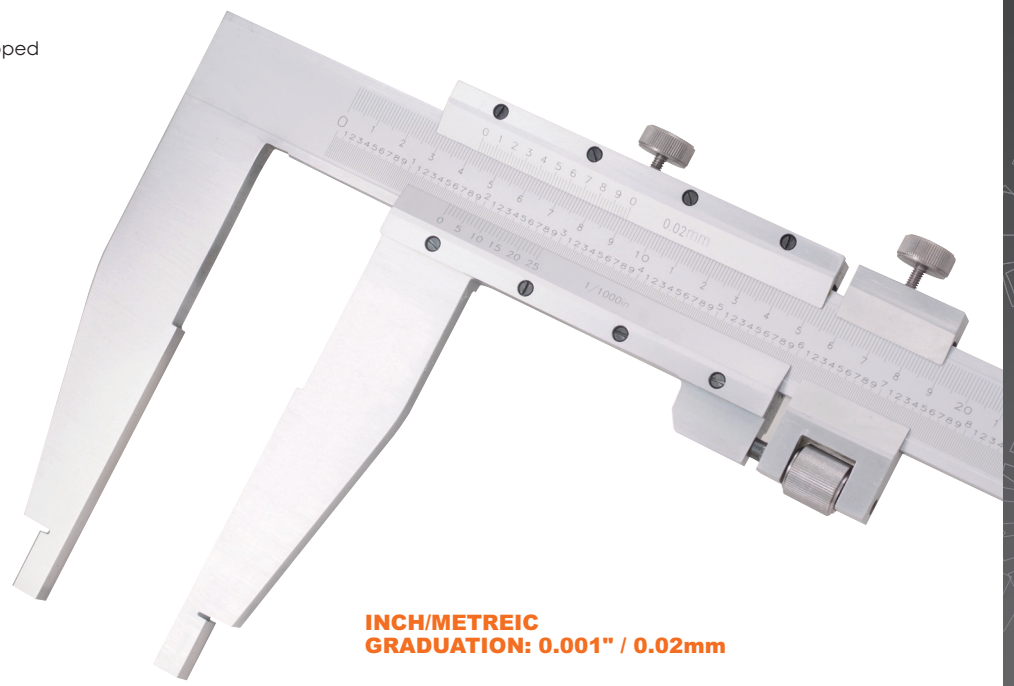
PRECISION HEAVY DUTY LONG RANGE VERNIER CALIPERS

- Fine adjustment thumb screw
- Hardened stainless steel throughout.
- All measuring surfaces are ground and lapped for extreme accuracy.
- Supplied in wood case.
- Satin chrome finish: Non-glare.
- Meets DIN 862

Reading 0.001"/ 0.02mm



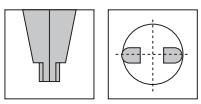




INCH/METREIC GRADUATION: 0.001" / 0.02mm

Item#	Range	Jaw Depth	Radiused Jaw Width
4100-0009	0-60" / 0-1500mm	6-1/2"	20mm
4100-0010+	0-80" / 0-2000mm	7-1/2"	20mm

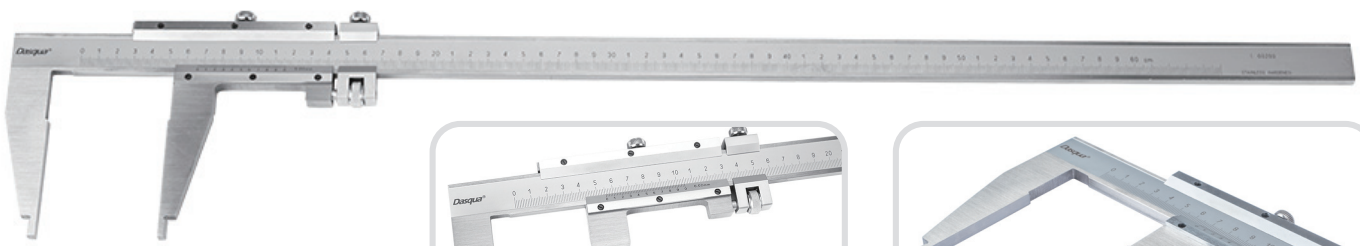
+ Truck Ship Only

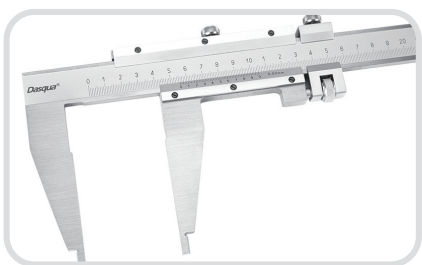


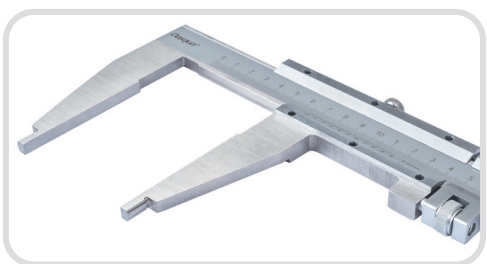
Radiused jaws for accurate ID measurement

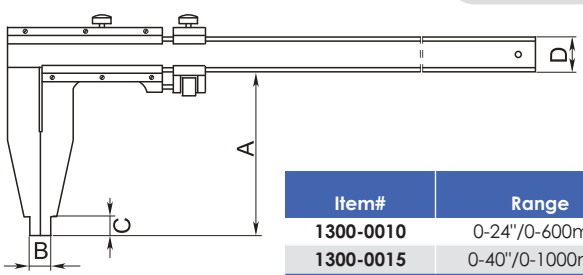
Dasqua® LONG RANGE VERNIER CALIPERS

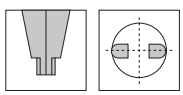
- Hardened and ground jaws with precision lapped measuring faces.
- Satin chrome finish, hardened stainless steel throughout for longer life.
- Black lines and figures against the satin chrome finish provide easy and error-free reading.
- Inch/Metric graduation.
- Two-way measurement: ID and OD.
- Jaws have rounded measuring faces for accurate inner diameter (ID) readings.
- Fine adjustment for precision measurement.
- Long jaws for hard to reach areas.
- Fitted plastic case.











Radiused jaws for accurate ID measurement

Item#	Range	Reading	(mm) A	B	C	L	Accuracy
1300-0010	0-24"/0-600mm	0.001"/0.02mm	100	10	12	25	±0.05mm/0.002"
1300-0015	0-40"/0-1000mm	0.001"/0.02mm	125	20	18	32	±0.07mm/0.0028"

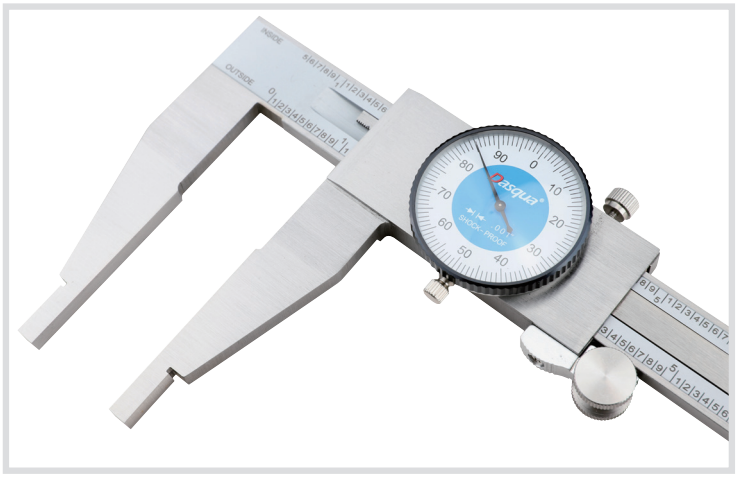
Dasqua® LONG RANGE HEAVY DUTY SHOCK PROOF DIAL CALIPERS

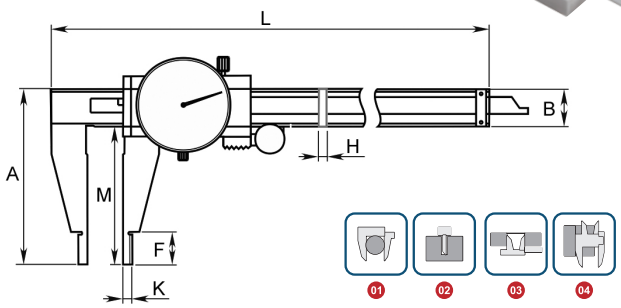
SHOCK -PROOF | DIN 862



- Tough shock-proof gearing.
- 4 usages for measuring outside diameter, inside diameter, step and depth.
- Solid stainless steel construction.
- Strictly made in accordance with DIN862.
- Distinct lines and figures laser etched against satin chrome finish.
- Locking screw for stable reading.
- Extra rigid main beam for high stability.
- Hardened, ground and lapped measuring surfaces.
- Silky smoothy movement throughout.
- Beam graduation in 0.100" increments.

0.100" PER REVOLUTION
0.001" GRADUATION





Item#	Range	Graduation	(mm) L	A	B	F	H	K	M	Accuracy
1432-4105	0-18"	0.001"	580	108	22	20	6.0	5	86	±0.002"
1432-4110*	0-20"	0.001"	630	108	22	20	6.0	5	86	±0.002"
1432-4115	0-24"	0.001"	730	108	22	20	6.0	5	86	±0.002"

* Limited Supply

4 PC STUDENT'S KIT

0~6" Dial Caliper:
- 0.001"graduation
- 4-way measurement
- Stainless steel
- Shock-proof

6" Flex Ruler:
- 4R graduation
- Satin chrome finish
- Stainless steel

0~1" Outside Micrometer:
- 0.0001" graduation
- Carbide tipped
- Ratchet stop

4 PC KIT
4902-0004
Complete with fitted case

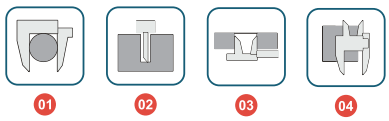
4" Bevel Square:
- Beam size 2-3/4"
- Ground and lapped accuracy for straightness, parallelism, and at right angles.



Dasqua® MACHINIST GRADE SHOCK PROOF DIAL CALIPERS

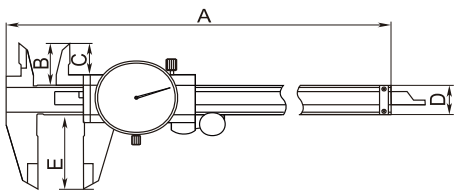
DIN 862

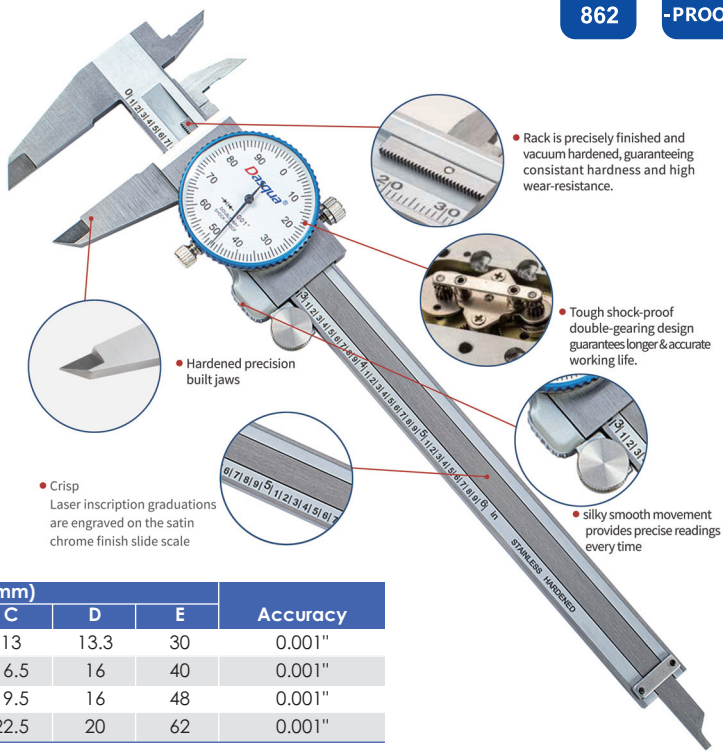
SHOCK -PROOF



DOUBLE SHOCK-PROOF

- The entire body jaws are vacuum hardened with uniform hardness, guaranteeing longer wear-resistance and longer service life.
- The upper and lower parts of the slide scale body are precisely ground to ensure smooth operation.
- Strictly in accordance with **DIN862** standard.
- Made of high quality stainless steel.





Item#	Range	Graduation	(mm) A	B	C	D	E	Accuracy
1332-4105	0-4"	0.001"	169	18	13	13.3	30	0.001"
1332-4110*	0-6"	0.001"	236	21	16.5	16	40	0.001"
1332-4115	0-8"	0.001"	285	24	19.5	16	48	0.001"
1332-4120	0-12"	0.001"	410	28	22.5	20	62	0.001"

* Limited Supply

Dasqua® SHOCK-PROOF 6" DIAL CALIPER
WITH FREE DEPTH GAGE ATTACHMENT & 1" GAGE BLOCK

DIN 862

SHOCK -PROOF

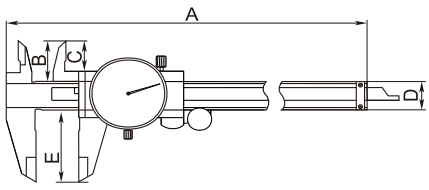
- The entire body jaws are vacuum hardened with uniform hardness, guaranteeing longer wear-resistance and longer service life.
- The upper and lower parts of the slide scale body are precisely ground to ensure smooth operation.
- Tough shock-proof gearing
- Use for measuring outside diameter, inside diameter, step and depth
- Made of solid stainless steel
- Distinct lines and figures laser etched against satin chrome finish
- With locking screw for stable reading
- Large dial for easy and clear reading
- Includes dial caliper, free depth gage attachment, gage block and fitted case.

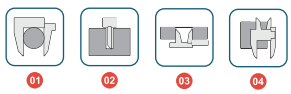


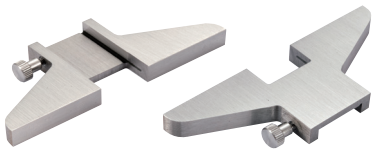


2210-8280

DOUBLE SHOCK-PROOF





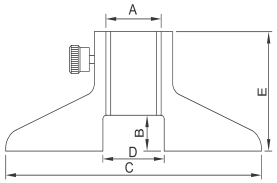


Caliper Specification

Range	Graduation	(mm) A	B	C	D	E	Accuracy
0-6"	0.001"	236	21	16.5	16	40	0.001"

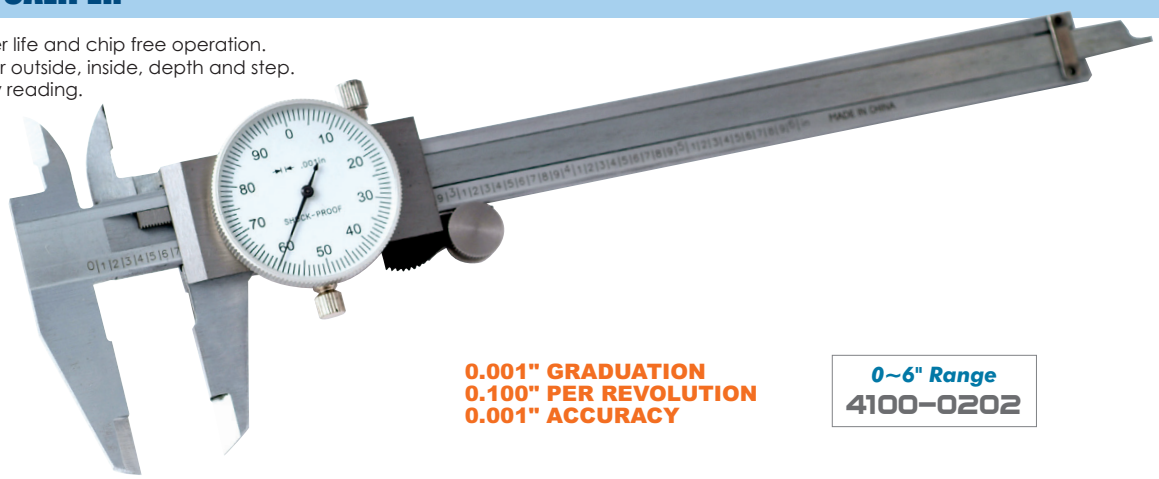
Depth Base Specification

(mm) A	B	C	D	E	Application
16.5	9	75	18	30	Base Length 75mm; for width of the beam 16mm



PRECISION DIAL CALIPER

- Covered rack for longer life and chip free operation.
- 4-way measurement for outside, inside, depth and step.
- Adjustable dial for easy reading.
- One revolution.
- Positive lock.
- Fitted case.
- **Meets DIN 862.**

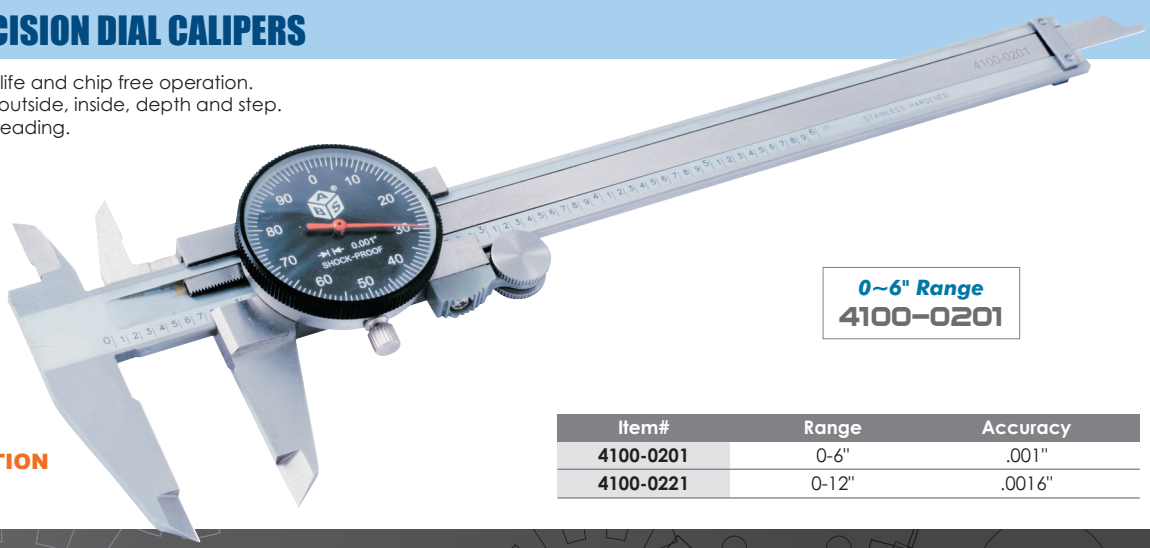


0.001" GRADUATION
0.100" PER REVOLUTION
0.001" ACCURACY

0~6" Range
4100-0202

BLACK FACE PRECISION DIAL CALIPERS

- Covered rack for longer life and chip free operation.
- 4-way measurement for outside, inside, depth and step.
- Adjustable dial for easy reading.
- One revolution.
- Positive lock.
- Fitted case.
- **Meets DIN 862.**



0~6" Range
4100-0201

0.001" GRADUATION
0.100" PER REVOLUTION

Item#	Range	Accuracy
4100-0201	0-6"	.001"
4100-0221	0-12"	.0016"

4 PC MEASURING SET - TAPE MEASURE, 2 RULES & 6" CALIPER

NEW

- This 4-pc measuring set combines accuracy, durability and convenience into one complete package for professional and everyday measuring tasks.
- Designed for machinists, tradespeople and detail-oriented users, this measuring set ensures you always have the right tool for both rough and precision measuring tasks.
- **Includes:** 25 ft. Heavy Duty Easy-Reading Tape Measure (7020-0025), HHIP 8" x 3/4" 4R Steel Rigid Rule - 1/8, 1/16, 1/32, 1/64 (4906-0203), Dasqua 0-150mm / 0-6" Digital Caliper (1804-1065) and 6" x 15/32" Stainless Steel Ruler - 32nds, 64ths & Decimal (7006-0001)

4 PC SET
9999-0072



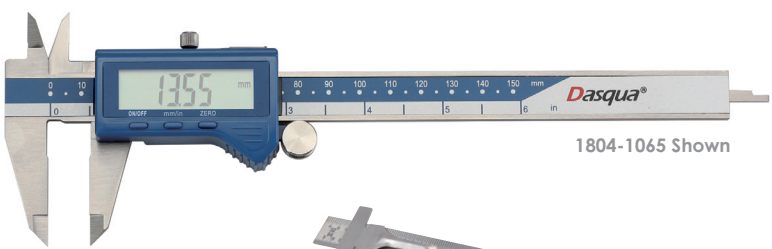
7020-0025 Shown

25 FT HEAVY DUTY EASY-READ TAPE MEASURE (7020-0025)

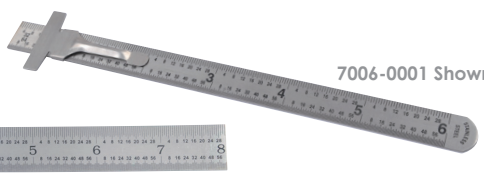
- Handles fast layout and general measurements with clear, high-contrast markings.

DASQUA 0-150MM / 0-6" DIGITAL ELECTRONIC CALIPER (1804-1065)

- For detailed work, this caliper provides precise digital readings for inside, outside, depth and step measurements.



1804-1065 Shown



7006-0001 Shown

TWO PRECISION RULES

- These two rules complete the set. The HHIP 8" x 3/4" 4R Rigid Steel Rule (4906-0203) with fine graduations down to 1/64" and a 6" x 15/32" Stainless Steel Rule (7006-0001) featuring 32nds, 64ths and decimal scales for quick reference and layout.

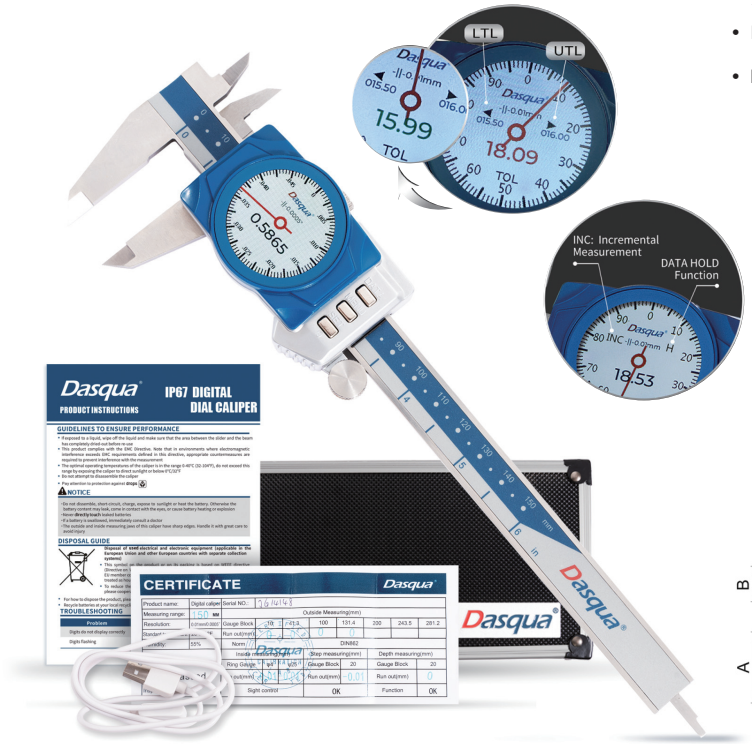
4906-0203 Shown



Dasqua® 0~6" COMBINED DIAL & DIGITAL ELECTRONIC CALIPER - IP67

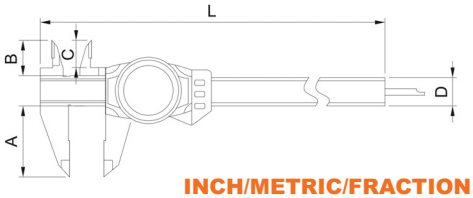
BEST SELLER | mm/in/F | IP67 COOLANT & FLUID RESISTANT | DIN 862

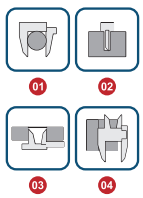
- **Precision Engineering** – Strictly made in accordance with DIN 862 for superior accuracy.
- **Exceptional Durability** – Hardened, ground, and lapped measuring surfaces ensure long service life.
- **Ultra-Accurate Measurements** – Precision-ground measuring surfaces for smooth operation and ultimate accuracy.
- **IP67 Waterproof & Dustproof** – Fully protected against water, dust, and oil, making it ideal for workshops, laboratories, and woodworking.
- **Sturdy zinc alloy casing** – for better protection and longer service life.
- **Advanced Inductive Measurement System** – Ensures consistent and reliable readings.
- **Customizable Tolerance Settings** – Optional tolerance set and tolerance alarm features.
- **Multi-Functional Design** – Includes Calibration, Switch-off, TOL, INC, and HOLD functions, offering the convenience of both internal and external caliper gages.
- **Superior Craftsmanship** – Hardened and ground surfaces provide extreme accuracy, smooth operation, and longevity.
- **Rechargeable Battery** – Built-in 1000mAh high-capacity lithium battery with magnetic charging for extended use.
- **Built-in Wireless Option** – Optional integrated wireless system for seamless data transfer.
- **Includes:** caliper, user manual, charger cable, warranty letter, certificate and protective case.











INCH/METRIC/FRACTION
0.0005" RESOLUTION

Item#	Range	Resolution	Dimensions (mm)					Accuracy	Type
			A	B	C	D	L		
3004-0010	0-6"/ 0-150mm	0.01mm/0.0005"/1/128"	40	20	15.5	16	235	±0.02mm	Built-in wireless system

3-KEY AUTO-OFF DIGITAL ELECTRONIC CALIPERS



INCH/METRIC
0.0005" RESOLUTION

0~6" Range
4100-0030

- Auto power off or manual on/off key.
- Three-key Model: Inch/MM, On/Off & Zero.
- Switchable inch/metric, with resolution to .0005"/ .01mm on high contrast easy to read LCD display.
- 4-way measurements: Outside, Inside, Depth & Step.
- Floating zero.
- Body and measuring surfaces are hardened stainless steel.
- Standard SR 44, 1.55V battery included.
- With fitted case.
- Meets DIN 862.

REPLACEMENT BATTERY (ITEM #4102-0030)

Item#	Range	Accuracy
4100-0029	0-4" / 0-100mm	± 0.001"/ 0.02mm
4100-0030	0-6" / 0-150mm	± 0.001"/ 0.02mm
4100-0031	0-8" / 0-200mm	± 0.001"/ 0.03mm
4100-0032	0-12" / 0-300mm	± 0.0015"/ 0.04mm

Dasqua® 0~6" DIGITAL ELECTRONIC CALIPER

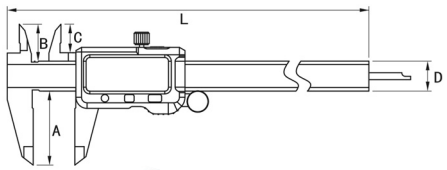
- This affordable, smooth, reliable caliper combines accuracy, versatility, and a user-friendly design, making it ideal for a wide range of applications.
- Get precise readings with a resolution of 0.01mm / 0.0005" (mm/in) and an accuracy of 0.02mm/0.001".
- The large LCD screen clearly displays your measurements in metric and inch formats.
- Measure internal dimensions, external dimensions, depth, and steps smoothly and with ease.
- The stainless-steel construction and hardened, ground, and lapped measuring surfaces ensure long tool life.
- The ergonomic design and smooth movement make this caliper comfortable to use for extended periods.
- Conserve battery life with the automatic shut-off feature.
- This high-quality caliper includes a product traceability system with a QLR code on the caliper.
- This caliper is perfect for machinists, woodworkers, automotive technicians, hobbyists, DIY enthusiasts, and anyone who needs accurate measurements.
- Strictly made in accordance with DIN 862.
- Includes caliper, protective case & battery.

BEST SELLER

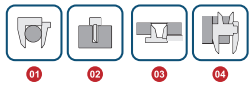
DIN 862 | mm/in | Battery + CR2032

INCH/METRIC
0.0005"/0.01MM RESOLUTION













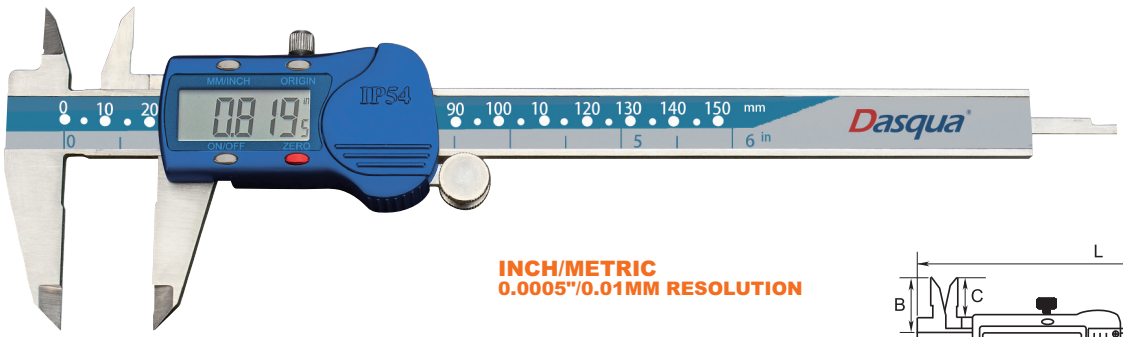
REPLACEMENT BATTERY (ITEM #4102-0032)

Item#	Range	Resolution	Dimensions (mm)					Accuracy
			A	B	C	D	L	
2000-2005	0-6"/ 0-150mm	0.01mm/0.0005"	40	20	15.5	16	235	0.02mm/0.001"

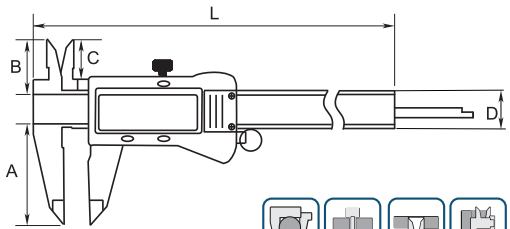
Dasqua® METAL HOUSING BIG SCREEN DIGITAL ELECTRONIC CALIPERS

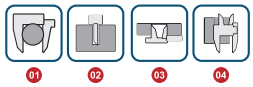
Metal Cover

Battery + CR2032 | DIN 862 | mm/in



INCH/METRIC
0.0005"/0.01MM RESOLUTION





- Stainless steel frame.
- Silky smooth movement throughout.
- Hardened, ground and lapped measuring surfaces.

0~6" Range
2117-9105

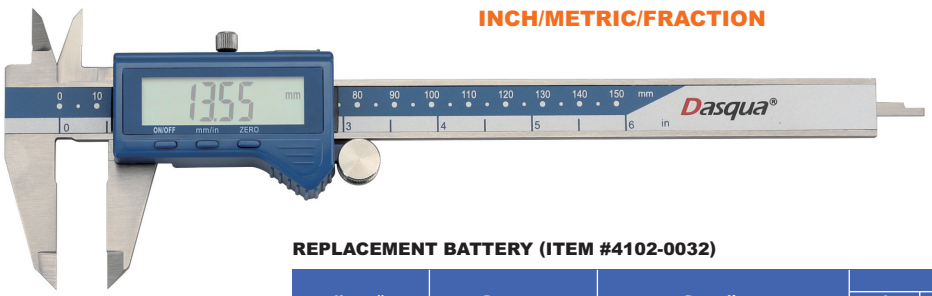
REPLACEMENT BATTERY (ITEM #4102-0032)

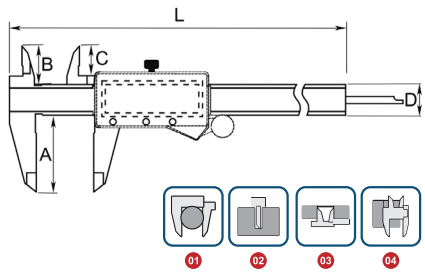
Item#	Range	Reading	Dimensions (mm)					Accuracy
			A	B	C	D	L	
2117-9105	0-6"/0-150mm	0.01mm/0.0005"	40	20	15.5	16	235	0.02mm/0.001"
2117-9110	0-8"/0-200mm	0.01mm/0.0005"	50	24	19.5	16	287	0.03mm/0.0015"
2117-9115	0-12"/0-300mm	0.01mm/0.0005"	60	26	21.5	16	290	0.03mm/0.0015"

Dasqua® BIG SCREEN DIGITAL ELECTRONIC CALIPER

- Surfaces of beam ground (Parallelism: 0.015, 20% better than normal) to ensure smooth movement throughout.
- Special glass etching for super accuracy.
- Digit Size:11.5mm.
- Inch, Metric, Fractional.
- Standard CR-2032 (3V) battery included.
- **Meets DIN 862.**

Battery + CR2032 | mm/in/F | DIN 862



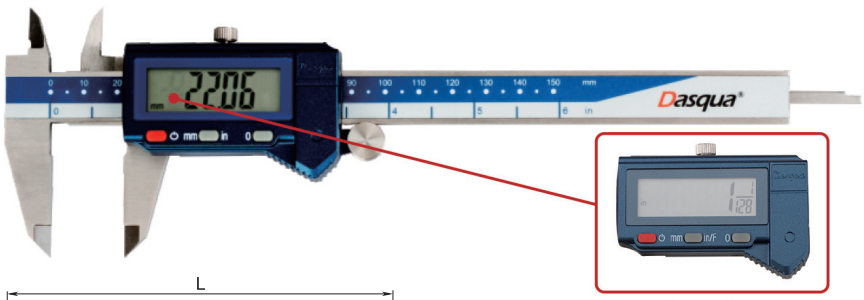


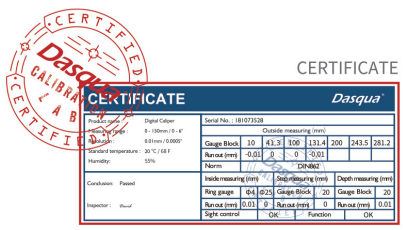
REPLACEMENT BATTERY (ITEM #4102-0032)

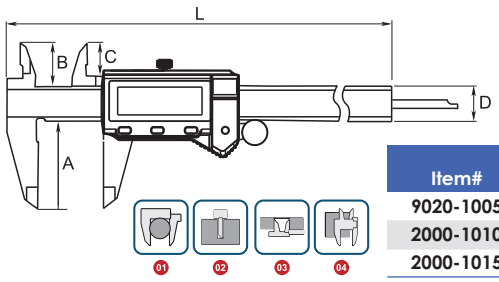
Item#	Range	Reading	(mm) A	B	C	D	L	Accuracy
1804-1065	0-6"/0-150mm	0.0005"/0.01mm/1/128"	40	20	15.5	16	235	0.02mm/0.001"

Dasqua® IP54 WATER-RESISTANT DIGITAL ELECTRONIC CALIPERS

DIN 862 | mm/in/F | IP54 COOLANT & FLUID RESISTANT | Battery + CR2032







INCH/METRIC/FRACTION

- NEW Advanced design.
- Strictly made in accordance with DIN 862.
- Silky smooth movement throughout.
- Hardened, ground and lapped measuring surfaces.

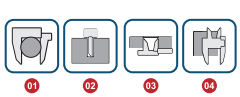
REPLACEMENT BATTERY (ITEM #4102-0032)

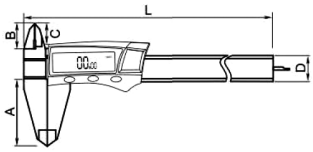
Item#	Range	Reading	(mm) A	B	C	D	L	Accuracy
9020-1005	0-6"/0-150mm	0.01mm / 0.0005" / 1/128"	40	20	15.5	16	235	0.02mm/0.001"
2000-1010	0-8"/0-200mm	0.01mm / 0.0005" / 1/128"	50	24	19.5	16	287	0.03mm/0.0015"
2000-1015	0-12"/0-300mm	0.01mm / 0.0005" / 1/128"	60	26	21.5	16	390	0.03mm/0.0015"

Dasqua® DIGITAL ELECTRONIC PLASTIC CALIPERS

- Made of fiberglass composite for strong beam, durability and longer life.
- Harm-free to the surfaces of measured objects, like jewels and handcrafts.
- Non-conductive for sale in oily working sites like auto repair workshop etc.
- Includes leather bag.

DIN 862 | Battery + LR54





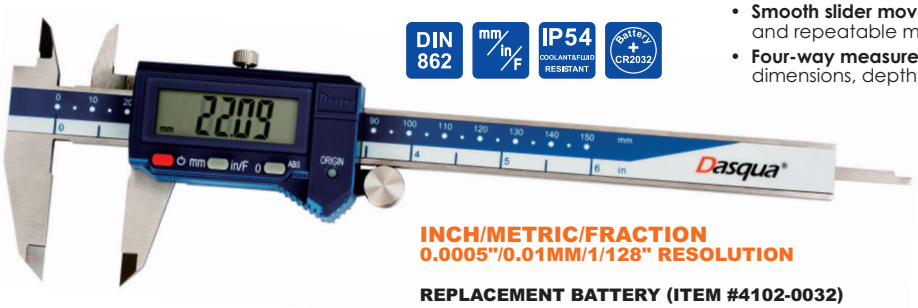


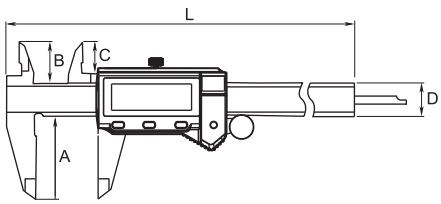
REPLACEMENT BATTERY (ITEM #4102-0032)

Item#	Range	Resolution	(mm) A	B	C	D	L	Accuracy
2035-0004	0-3"/0-75mm	0.01mm/0.0005"	25.5	14	9.5	13	138	± 0.2mm
2035-0005	0-6"/0-150mm	0.01mm/0.0005"	39.5	21	16	16	236	± 0.2mm
2035-0006	0-6"/0-150mm	0.01mm/0.0005"/1/64"	39.5	21	16	16	236	± 0.2mm

Dasqua® ABSOLUTE IP54 WATER-RESISTANT DIGITAL ELECTRONIC CALIPERS

- **Absolute measuring system** retains the zero position, allowing immediate measurements without resetting each time the caliper is powered on.
- **IP54 protection** resists coolant, oil, dust, and shop debris for dependable performance in demanding environments.
- **Three measuring modes plus fractional conversion** provide inch, metric, and fractional readings for greater versatility across applications.
- **Hardened stainless-steel construction** with ground and lapped measuring surfaces delivers long service life and consistent accuracy.
- **Supplied in a fitted protective case** for convenient storage and protection during transport.
- **Long-life CR2032 battery** provides reliable operation with easy battery replacement.
- **DIN 862 compliant** and supplied with a calibration certificate to ensure confidence in measurement quality.
- **Large, easy-to-read digital display** improves efficiency and reduces the chance of reading errors.
- **Smooth slider movement with locking screw** allows precise positioning and repeatable measurements.
- **Four-way measurement capability** measures outside dimensions, inside dimensions, depth, and step measurements with one tool.

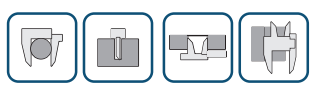




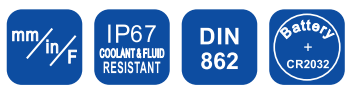
INCH/METRIC/FRACTION
0.0005"/0.01MM/1/128" RESOLUTION

REPLACEMENT BATTERY (ITEM #4102-0032)

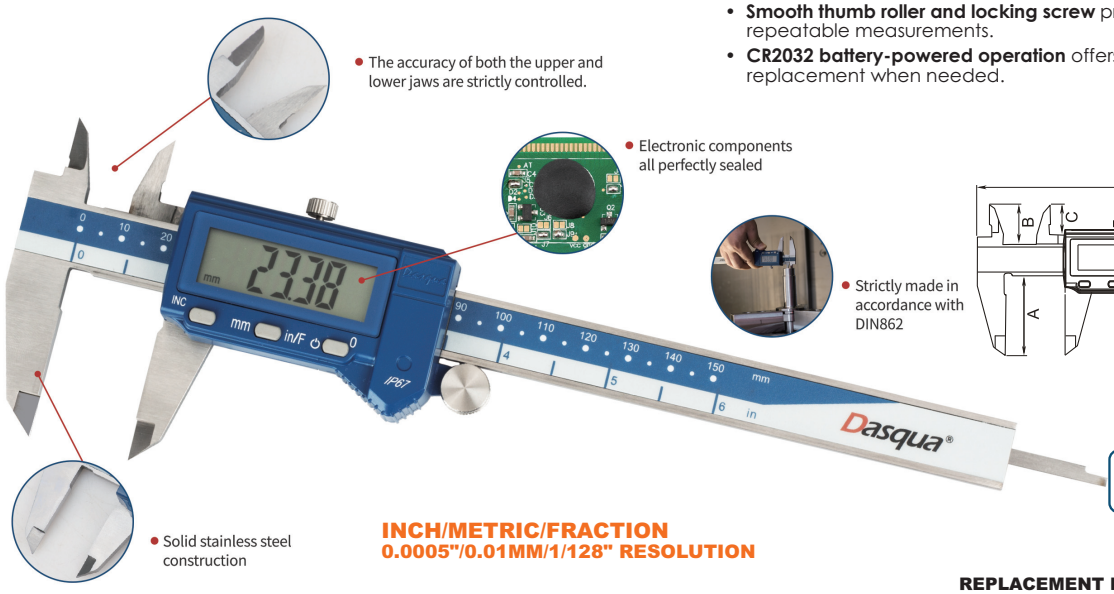
Item#	Range	Reading	(mm) A	B	C	D	L	Accuracy
2010-1005	0-6"/0-150mm	0.01mm / 0.0005" / 1/128"	40	20	15.5	16	235	0.02mm/0.001"
2010-1010	0-8"/0-200mm	0.01mm / 0.0005" / 1/128"	50	24	19.5	16	287	0.03mm/0.0015"
2010-1015	0-12"/0-300mm	0.01mm / 0.0005" / 1/128"	60	26	21.5	16	390	0.03mm/0.0015"

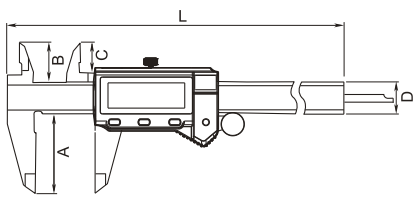


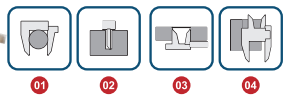
Dasqua® IP67 WATER/OIL-RESISTANT DIGITAL ELECTRONIC CALIPERS



- **IP67 waterproof and oil-proof protection** withstands coolant, oil, dust, and liquid exposure for reliable use in harsh shop environments.
- **Inductive measuring system with sealed electronics** eliminates glass scale contamination concerns and enhances durability.
- **Large, easy-to-read LCD display** provides quick, clear measurements to improve productivity and reduce errors.
- **Fractional, inch, and metric readout capability** offers versatility for a wide range of machining and fabrication applications.
- **Hardened stainless-steel construction** with precision-ground measuring surfaces ensures long service life and dependable accuracy.
- **DIN 862 compliant and supplied with a calibration certificate** for confidence in measurement performance and quality assurance.
- **Four-way measuring capability** allows outside, inside, depth, and step measurements with a single tool.
- **Sealed design protects internal components** for dependable operation in demanding production environments.
- **Smooth thumb roller and locking screw** provide precise positioning and repeatable measurements.
- **CR2032 battery-powered operation** offers long battery life with simple replacement when needed.







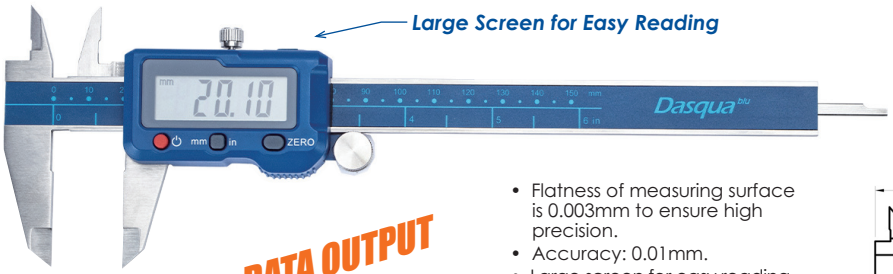
INCH/METRIC/FRACTION
0.0005"/0.01MM/1/128" RESOLUTION

REPLACEMENT BATTERY (ITEM #4102-0032)

Item#	Range	Reading	(mm) A	B	C	D	L	Accuracy
2015-1005	0-6"/0-150mm	0.01mm / 0.0005" / 1/128"	40	20	15.5	16	235	0.02mm/0.001"
2015-1010	0-8"/0-200mm	0.01mm / 0.0005" / 1/128"	50	24	19.5	16	287	0.03mm/0.0015"
2015-1015	0-12"/0-300mm	0.01mm / 0.0005" / 1/128"	60	26	21.5	16	390	0.03mm/0.0015"

Dasqua® 0~6" PRO DIGITAL ELECTRONIC CALIPER WITH HIGH ACCURACY 0.0005"

DIN 862 | Data output | Battery + CR2032 | mm / in

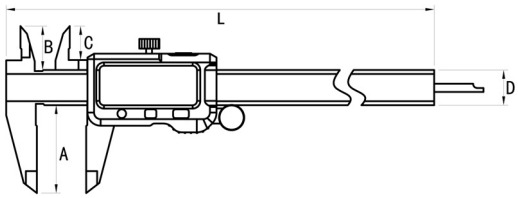


01 02 03 04

DATA OUTPUT

- Flatness of measuring surface is 0.003mm to ensure high precision.
- Accuracy: 0.01mm.
- Large screen for easy reading.

INCH/METRIC
0.0005"/0.01MM RESOLUTION











REPLACEMENT BATTERY (ITEM #4102-0032)

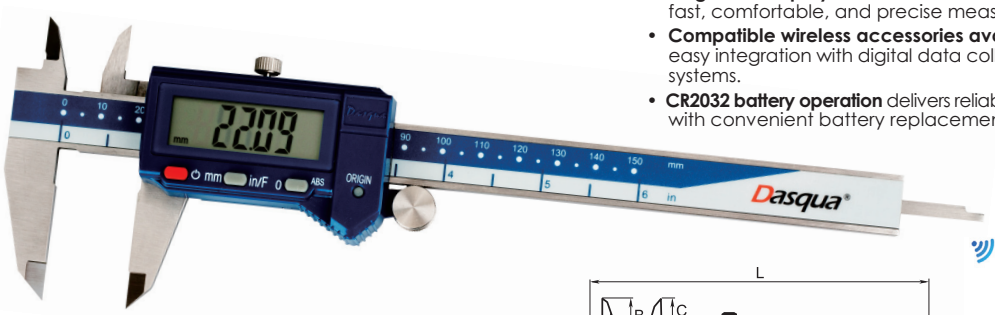
Item#	Range	Resolution	Dimensions (mm)					Accuracy
			A	B	C	D	L	
9020-0005	0-6"/ 0-150mm	0.01mm/0.0005"	40	20	15.5	16	235	0.01mm/0.0005"

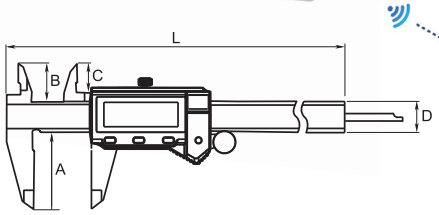
Dasqua® BUILT IN BLUETOOTH IP54 WATER-RESISTANT DIGITAL ELECTRONIC CALIPERS

- **Built-in Bluetooth® wireless transmission** sends measurement data directly to compatible devices, reducing manual entry errors and improving efficiency.
- **Absolute measuring system** retains the zero setting, allowing instant measurements without resetting after power cycles.
- **IP54 protection** resists coolant, oil, dust, and shop debris for dependable use in demanding environments.
- **Fractional, inch, and metric readouts** provide flexibility for a variety of machining, inspection, and fabrication applications.
- **Hardened stainless-steel construction** with ground and lapped measuring surfaces ensures long-lasting accuracy and durability.
- **DIN 862 compliant and supplied with a calibration certificate** for confidence in measurement quality and traceability.
- **Four-way measuring capability** handles outside, inside, depth, and step measurements with a single instrument.
- **Large LCD display with thumb roller control** allows fast, comfortable, and precise measurements.
- **Compatible wireless accessories available** enable easy integration with digital data collection and SPC systems.
- **CR2032 battery operation** delivers reliable performance with convenient battery replacement.

ABSOLUTE

Battery + CR2032 | DIN 862 | mm / in / F | IP54 COOLANT & FLUID RESISTANT | Absolute







INCH/METRIC/FRACTION
0.0005"/0.01MM/1/128" RESOLUTION

REPLACEMENT BATTERY (ITEM #4102-0032)

Item#	Range	Reading	(mm)					Accuracy
			A	B	C	D	L	
2025-1005	0-6"/0-150mm	0.01mm / 0.0005" / 1/128"	40	20	15.5	16	235	0.02mm/0.001"
2025-1010	0-8"/0-200mm	0.01mm / 0.0005" / 1/128"	50	24	19.5	16	287	0.03mm/0.0015"
2025-1015	0-12"/0-300mm	0.01mm / 0.0005" / 1/128"	60	26	21.5	16	390	0.03mm/0.0015"

01 02 03 04

Dasqua® 6" LEFT HAND DIGITAL ELECTRONIC CALIPER



DESIGNED SPECIALLY FOR LEFT-HANDED USE

- More accurate measurements for left-hand users.
- Advantages in specialized applications.
- Resolution 0.0005"/0.01mm.
- Accuracy 0.001"/0.02mm.
- Zero setting at any position.
- Inch/mm system interchangeable.
- Battery: CR1632



mm/in

Battery + CR2032

0-150mm/0-6 Inch
2030-0005



REPLACEMENT BATTERY (ITEM #4102-0033)

INCH/METRIC
0.0005"/0.01MM RESOLUTION

Dasqua® 6" LEFT HAND DIGITAL ELECTRONIC CALIPER WITH 6 & 8" 3R FLEX RULES

NEW

LEFT HAND DIGITAL ELECTRONIC CALIPER

- 0-6"/0-150mm.
- 0.0005"/0.01mm resolution.
- More accurate measurements for left hand users.

6 & 8" 3R FLEX RULES

- Made of steel.
- Fully hardened, tempered and chrome finished.
- Precisely etched for accuracy & readability.
- 3R - 32nds & 64ths, 10ths & 50ths.

BUY A COMBO SET & SAVE!



3 PC SET
9930-0005





Dasqua® 0-1.25" DIGITAL ELECTRONIC SNAP CALIPER

- **High-Precision Digital Measurement** – Measures from 0-1.25" (0-31.5 mm) with a fine resolution of 0.0005" (0.01 mm) for accurate, repeatable results.
- **Spring-Loaded Snap Mechanism** – Allows quick, efficient measuring with consistent jaw pressure, ideal for production and inspection use.
- **Clear LCD with mm/in Conversion** – Large, easy-to-read display with Inch/mm/Fraction Conversion for fast, error-free readings.
- **Data Output Capability** – Enables connection to data collection systems for quality control and inspection reporting.
- **Durable Hardened Stainless Steel** – Built for long-term accuracy and reliability in shop and inspection environments.
- Ideal for measuring a wide range of material from metal, plastic, and glass to small wires, fibers and paper.
- **Hanging Loop** – for attachment to belt or chain.
- **Includes** – Protective case, battery and hanging loop.



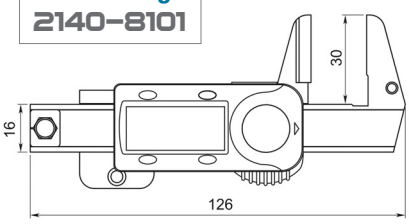
Battery + CR2032

mm/in/F

Data output

0-1.25" Range
2140-8101

INCH/MM/FRACTION





SPECIFICATIONS:

Range	Resolution	Accuracy
0-25mm/0-1.25"	0.0005"/0.01/1/64	0.03mm/0.0015"

REPLACEMENT BATTERY (ITEM #4102-0032)

PRECISION MEASURING TOOLS

DIGITAL ELECTRONIC CALIPERS

LONG RANGE DIGITAL ELECTRONIC CALIPERS

- Resolution to 0.0005"/ 0.01mm on high contrast LCD display.
- Internal and external measurement.
- Absolute/Incremental measurement with fine adjustment.
- Body is hardened stainless steel , no-glare satin reading.
- Standard SR 44, 1.55V battery included.
- Switchable inch/metric.
- Preset function.
- On/Off button.
- Fitted wood case.
- Meets DIN 862

0~24" Range
4109-1034



Item#	Range	Jaw Length	Radiused Jaw Width	Accuracy
4100-0033	0-20"/ 0-500mm	4	0.787"	± 0.002"/ 0.05mm
4109-1034	0-24"/ 0-600mm	4	0.80"	± 0.002"/ 0.05mm
4109-1036	0-40"/ 0-1000mm	5	0.80"	± 0.002"/ 0.06mm
4100-0037	0-60"/ 0-1500mm	5-1/4	0.787"	± 0.004"/ 0.10mm

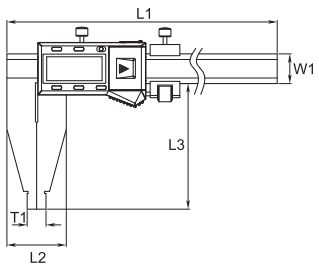
INCH/METRIC
0.0005"/0.01MM RESOLUTION

REPLACEMENT BATTERY (ITEM #4102-0030)

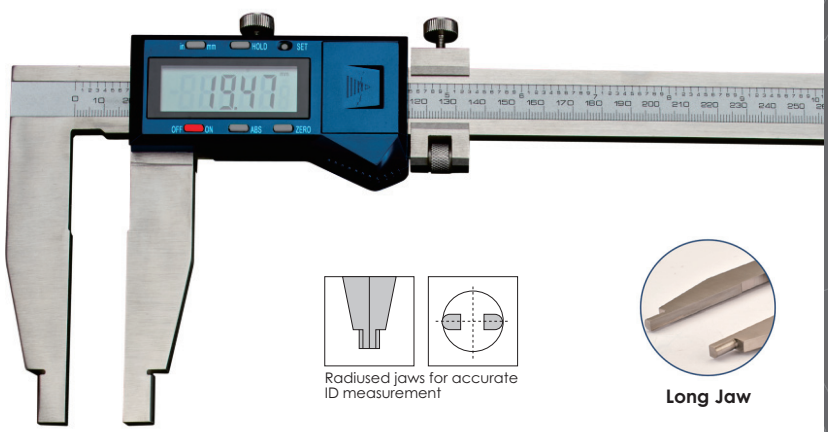
Dasqua® INDUSTRIAL HEAVY DUTY DIGITAL ELECTRONIC CALIPERS

Battery + CR2032 | CABLE 03 | DIN 862 | mm/in

- Strictly made in accordance with **DIN 862**.
- Fine adjustment.
- Hold function.
- Hardened stainless steel construction for long life.
- Metric/Inch conversion.



Competitive Price compared to other industrial-grade heavy duty calipers



Long Jaw

INCH/METRIC
0.0005"/0.01MM RESOLUTION

REPLACEMENT BATTERY (ITEM #4102-0032)

Item#	Range	Reading	(mm) L1	L2	L3	W1	T1	Accuracy
2220-8113	0-12"/0-300mm	0.01mm / 0.0005"	445	40	90	20	10	0.04mm/0.002"
2220-8116	0-24"/0-600mm	0.01mm / 0.0005"	770	44	100	24	20	0.05mm/0.002"
2220-8119	0-40"/0-1000mm	0.01mm / 0.0005"	1210	46	125	30	20	0.06mm/0.0025"



INCH/METRIC
0.0005"/0.01MM RESOLUTION

REPLACEMENT BATTERY (ITEM #4102-0032)

Z-Limit LONG JAW DIGITAL ELECTRONIC CALIPER

- Manufactured and inspected at world class factory that produces highest quality US brands.
- Internal and external measurement.
- Absolute/Incremental measurement with fine adjustment.
- Body is hardened stainless steel , no-glare satin reading.
- Standard CR-2032, 3V battery included.
- Switchable inch/metric.
- High contrast LCD display.
- Preset function.
- On/Off button.
- Fitted case.
- Meets DIN 862





Item#	Range	Jaw Length	Radiused Jaw Width	Accuracy
4109-0243	0-24"/ 0-600mm	8"	0.787"	± .0015"/ .03mm

PRECISION MEASURING TOOLS

IP54 WATER-RESISTANT HEAVY DUTY DIGITAL ELECTRONIC CALIPER WITH 6" JAW LENGTH

Battery + CR2032 | mm/in | DIN 862

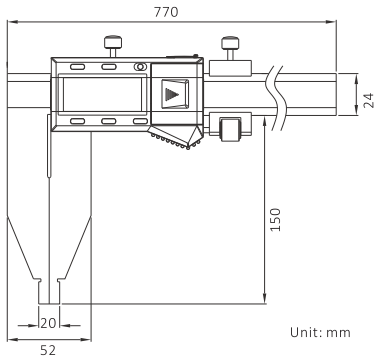
- With sturdy frame and big size for high stability.
- Made of solid stainless steel.
- Made in accordance with **DIN862**.
- With data-output and metric-inch coversion function.
- IP54 protection against liquid.
- Includes CR2032 battery and hard plastic case.
- Extended reach - 6" jaw length.
- Longer jaws contribute to more accurate measurements and facilitate the measurement of larger, longer objects or hard-to-reach areas.
- **Buttons on caliper:**
  ON/OFF: Power on/off switch
  ABS/INC: Relative/absolute measurement
  ZERO: Zero setting button
  mm/in: metric/inch conversion
  SET: presetting button
  HOLD: data hold button
- Fine adjustment.

INCH/METRIC
0.0005"/0.01MM RESOLUTION



Long Jaw

Radiused jaws for accurate ID measurement



0~24"/0-600mm
2220-8165

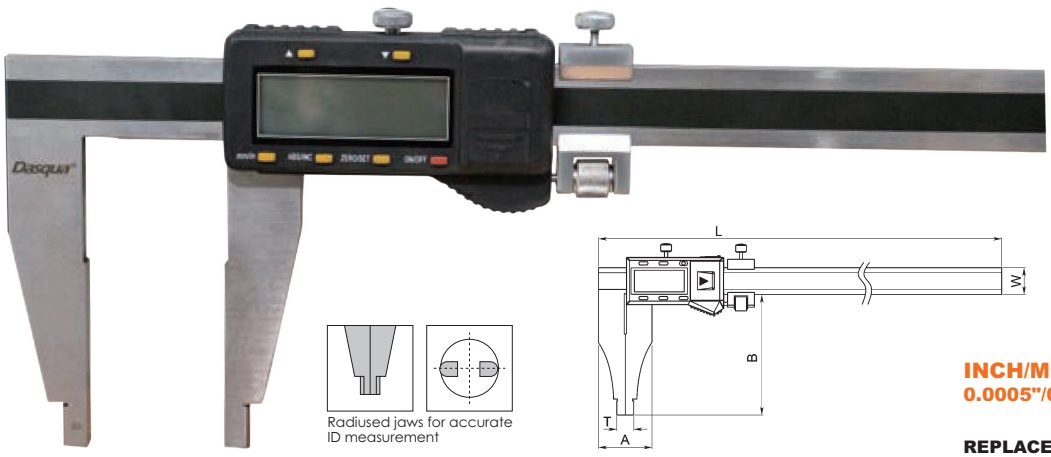
SPECIFICATIONS

Range	Reading	Accuracy
0-24"/0-600mm	0.01mm / 0.0005"	0.05mm/0.002"

REPLACEMENT BATTERY (ITEM #4102-0032)

IP54 WATER-RESISTENT LONG RANGE DIGITAL ELECTRONIC CALIPERS

IP54 COOLANT & FLUID RESISTANT | Data output | DIN 862 | mm/in | Battery + CR2032



Radiused jaws for accurate ID measurement

- With sturdy frame and big size for high stability.
- Made of solid stainless steel.
- Strictly made in accordance with **DIN 862**.
- Fine adjustment.
- Data-Output and Metric/Inch Conversion function.

INCH/METRIC
0.0005"/0.01MM RESOLUTION

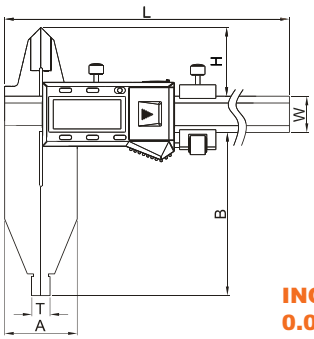
REPLACEMENT BATTERY (ITEM #4102-0032)

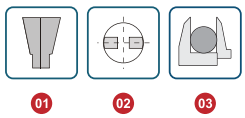
Item#	Range	Resolution	(mm) L	A	B	W	T	Accuracy
2220-3575	0-60"/0-1500mm	0.01mm / 0.0005"	1800	80	125	41.5	20	0.11/0.0045"
2220-3580+	0-80"/0-2000mm	0.01mm / 0.0005"	2300	80	150	41.5	20	0.14/0.0055"

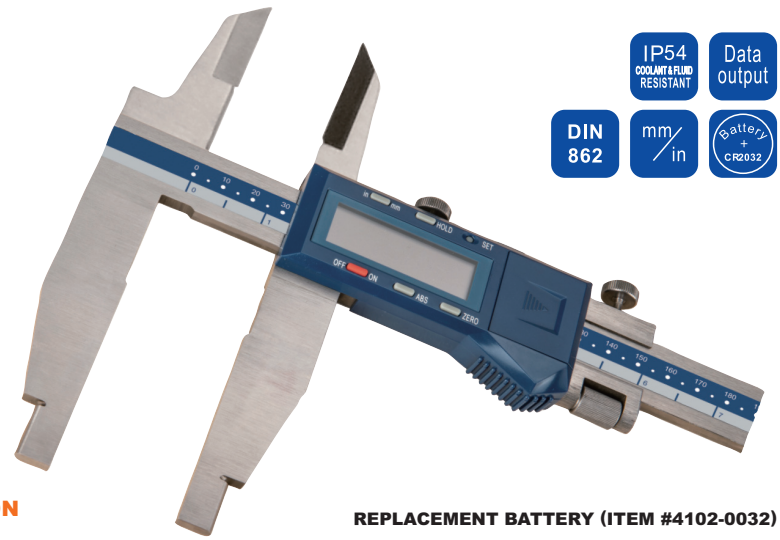
+ Truck Only

Dasqua® IP54 WATER-RESISTANT HEAVY DUTY DIGITAL ELECTRONIC CALIPERS - WITH UPPER JAWS

- With sturdy frame and big size for high stability.
- Made of solid stainless steel.
- Strictly made in accordance with **DIN 862**.
- Fine adjustment.
- Data-Output and Metric/Inch Conversion function.







INCH/METRIC
0.0005" /0.01MMRESOLUTION

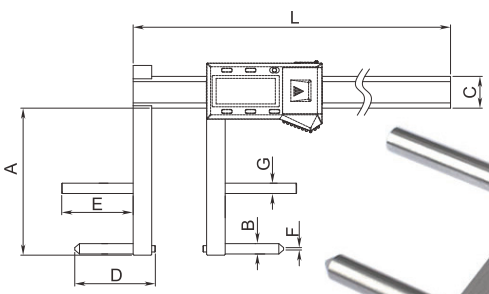
REPLACEMENT BATTERY (ITEM #4102-0032)

Item#	Range	Reading	(mm) L	A	B	W	T	H	Accuracy
2710-1105	0-12"/0-300mm	0.01mm / 0.0005"	445	40	90	20	10	38	0.04mm/0.002"
2710-1110	0-20"/0-500mm	0.01mm / 0.0005"	670	52	150	24	20	60	0.05mm/0.002"
2710-1113	0-24"/0-600mm	0.01mm / 0.0005"	770	54	150	24	20	60	0.05mm/0.002"
2710-1115	0-40"/0-1000mm	0.01mm / 0.0005"	1210	60	150	30	20	63	0.06mm/0.0025"

Dasqua® 4-20" IP54 WATER-RESISTANT DIGITAL ELECTRONIC CALIPER -EZ In & Out Brake Drum Gage



- **Ideal for Brake Drum Measurement:** 4-20 inch (100-500mm) range ideally suited for measuring brake drum diameters and depths.
- **Accurate and Reliable:** Precise measurements with a 0.01mm / 0.0005 inch / 1/64 inch resolution for reliable brake inspections.
- **IP54 Water-Resistant:** Protection against splashes and dust, suitable for use in automotive environments.
- **Solid Stainless Steel Construction:** Durable and resistant to wear and tear, even in greasy conditions.
- **Large LCD Screen:** Easy-to-read display for precise and efficient measurements when inspecting brake drums.
- **Fine Adjustment:** Allows precise adjustments and accurate readings for detailed brake component checks.
- **Easy Out & In:** Smooth and effortless sliding for quick measurements, essential for efficient brake work.
- **Functions:** On/Off, Zero, mm/inch conversion, Hold





4-20"/100-500mm
2220-8103

INCH/METRIC/FRACTION
0.0005"/0.01MM/1/64" RESOLUTION

REPLACEMENT BATTERY (ITEM #4102-0032)

SPECIFICATIONS:

Range	Resolution	(mm) A	B	C	D	E	F	G	L	Accuracy
4-20"/100-500mm	0.0005"/0.01mm/1/64"	101.35	Ø6.5	20	50.8	45	Ø1.5	Ø6.5	520	0.0025"/0.06mm

Dasqua® 0-3.2" PRECISION BRAKE ROTOR DIGITAL ELECTRONIC CALIPER

Battery + CR2032 | mm/in/F

- Precision digital brake rotor caliper: inch/metric/fractional interchangeable with large display for easy reading.
- Measuring range: 0-3.2" / 0-80mm
- Resolution: 0.0005" / 0.01mm/1/64"
- Repeatability: 0.001".
- Hardened stainless steel body with hold function for easy measurement recording.
- Brake rotor gage wheels for non-invasive rotor measurement, ideal for assessing brake pad wear and thickness measurement.

0-3.2"/0-80mm
1804-1030

MEASURE THE ROTOR WITHOUT REMOVING THE WHEEL.



INCH/METRIC/FRACTION
Resolution: 0.0005"/0.01mm/1/64"





REPLACEMENT BATTERY (ITEM #4102-0032)

Dasqua® 0-6" BRAKE ROTOR DIGITAL ELECTRONIC CALIPER

- Digital brake rotor caliper
- Measuring range: 0-140mm/0-5.5"
- Easily detect wear, grooves and warping with precise rotor thickness measurements using the Dasqua electronic precision caliper.
- Resolution: 0.01mm/0.0005"
- Accuracy: 0.05mm/0.002"
- Battery: CR2032

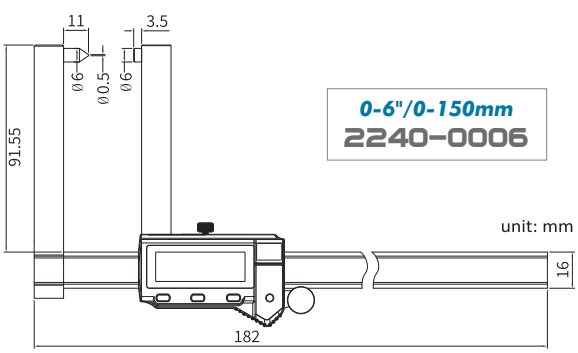
Battery + CR2032 | mm/in







INCH/METRIC
0.0005"/0.01MM RESOLUTION



0-6"/0-150mm
2240-0006



REPLACEMENT BATTERY (ITEM #4102-0032)

PRECISION MEASURING TOOLS

CALIPER ACCESSORIES

Dasqua® 7 PC ULTRA PRECISION MACHINIST KIT

IP67 COOLANT & FLUID RESISTANT

SET INCLUDES:

- 176lbs. super strong power pull 275mm arm length magnetic base with fine adjustment (7121-0025)
- Big screen IP67 oil proof digital caliper, 0-150mm/0-6" range, 0.0005" resolution, inch/metric/fraction (2015-2405)
- 0-150mm/0-6" rule, graduations: 0.5, 1.0, 1/64", 1/32", 1/16" (1012-2011)
- IP65 digital outside micrometer, 0-25mm/0-1" range, 0.0005" resolution (4410-1105)
- Dial test indicator with shock proof gearing, 0-0.03" range, 0.0005" resolution (5610-0162)
- Ultra precision 1-2-3 blocks, squareness 0.0001"/1" (8407-0005)
- Depth base attachment (3001-1001)

A MUST FOR EVERY MACHINIST!

7 PC Set
2210-8250
Complete with fitted case











CASES FOR CALIPERS (REPLACEMENT)

- Fits most dial and electronic calipers.
- Durable ABS material.
- **Case only.**





Item#	Fits Caliper	L x W x Thick
4100-0030CASE	6"	9.8 x 3.5 x 1"
4100-0031CASE	8"	12.0 x 3.8 x 1"
4100-0032CASE	12"	16.7 x 4.9 x 1.1"

Pro-Series CASES FOR CALIPERS (REPLACEMENT)

- Fits most dial and electronic calipers.
- Durable ABS material.
- Modern & advanced design provides extra protection & depth accesory storage.
- **Case only.**





Item#	Fits Caliper	L x W x Thick
4100-0030CV	6"	10.5 x 4 x 1.4"
4100-0031CV	8"	13 x 5 x 1.4"
4100-0032CV	12"	17 x 5.5 x 1.4"

REPLACEMENT BATTERIES FOR DIGITAL ELECTRONIC CALIPERS

- **Long-Lasting Power** – Provides dependable battery life to reduce downtime in shop, inspection, and measurement tasks.
- **Easy Replacement** – Quick, tool-free installation makes battery changes fast and hassle-free.



SR44, 1.55V
4102-0030
Battery height 5.40mm.
Battery diameter 11.60mm.



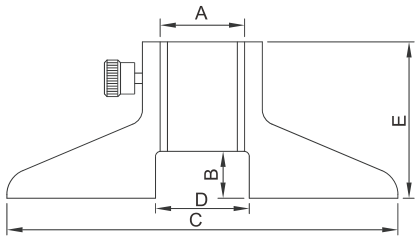
CR1632, 3V
4102-0033
Battery height 3.20mm.
Battery diameter 16mm.



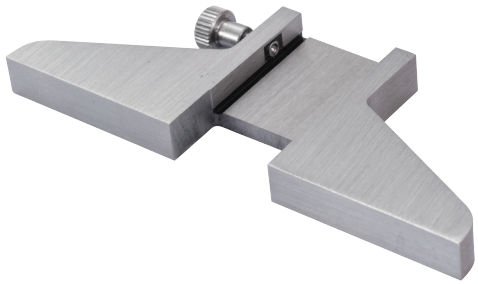
CG2032, 3V
4102-0032
Battery height 3.2mm.
Battery diameter 20mm.

Dasqua® CALIPER DEPTH BASE ATTACHMENT

- Increases the stability of the caliper when measuring the depth of a hole or recess.
- Made of solid stainless steel
- Measuring surfaces ground for ultimate accuracy



3001–1001



SPECIFICATIONS

(mm)					
A	B	C	D	E	Application
16.5	9	75	18	30	Base Length 75mm; for width of the beam 16mm

CENTER LINE GAGE SETS

- Checks distance between different size holes, or to an edge from a hole. Cone will seek center.
- Adapts to most dial calipers.
- Reads in exact figures.
- High grade alloy steel.



Item#	For
4100-0040	4", 6", 8" Calipers
4100-0041	10", 12" Calipers

CALIPER ACCESSORY KIT

- Components are hardened.
- 4.1mm slot to fit all kinds of brands.



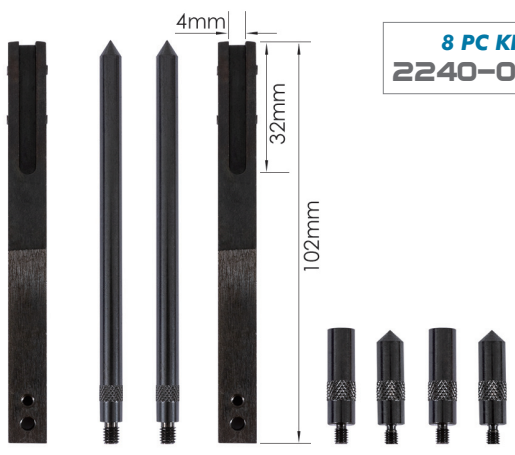
Kit includes:
4 sets of points
4 sets of screws
1 set of clamps
1 Allen wrench

4100–0044



Dasqua® 8 PC CALIPER ACCESSORY KIT

- **Durable Construction:** Made of hardened stainless steel for long-lasting accuracy and resistance to wear.
- **Precision Measurement:** Designed for use with digital and dial calipers, enabling accurate measurements of deep, wide, or hard-to-reach parts.
- **Easy Attachment:** Quick-swap design allows for fast installation on your caliper without additional tools.
- **Inch & Metric Compatible:** Works with calipers capable of reading both imperial and metric measurements.
- **Compact Storage:** Comes with a convenient organizer case for keeping all pieces secure and easily accessible.
- **Professional Grade:** Ideal for machinists, engineers, hobbyists, and metalworking professionals.
- **Versatile Applications:** Perfect for measuring metal, plastic, wood, and other materials where standard calipers cannot reach.



8 PC KIT
2240–0060

Complete 8-Piece Kit Includes:
2 extension bars,
4 interchangeable tips,
2 adapter blocks,
and a hex wrench for versatile caliper measurements.







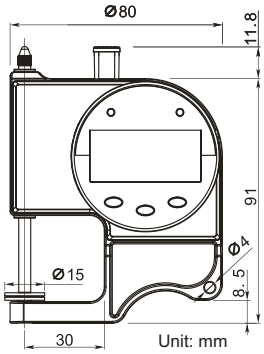
PRECISION MEASURING TOOLS

Dasqua® DIGITAL ELECTRONIC THICKNESS GAGE

- Spring load movement with a push button.
- Large LCD display for easy and clear readings.
- Thickness measurement of different materials.
- Data hold function, data output.
- Standard CR-2032 (3V) battery included.
- Fitted case.

Data output





INCH/METRIC/FRACTION
0.0005" GRADUATION

0~1"/0~25mm
2140-8110

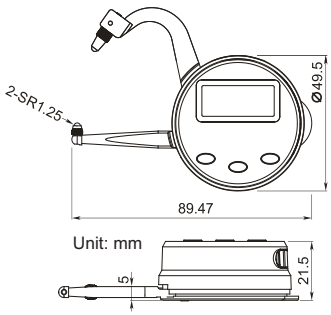
Cable 3 (ITEM #2220-9999)

Range	Resolution	Accuracy
0-25mm/0-1"	0.01mm / 0.0005" / 1/128"	0.05mm/0.002"

Dasqua® DIGITAL ELECTRONIC THICKNESS GAGE

- Large LCD display for easy and clear readings.
- Spring loaded travel.
- The compact size and lightweight ensure it is very convenient and handy, and easy to operate.
- Data hold function.
- Class A for electrostatic discharge.
- Standard CR-2032 (3V) battery included.
- Fitted case.





INCH/METRIC/FRACTION
0.0005" GRADUATION

0~1"/0~25mm
2140-8105

Range	Resolution	Accuracy
0-25mm/0-1"	0.01mm / 0.0005" / 1/64"	0.05mm/0.002"

12PC MICRO CHECKING SET



- For checking various spindle positions of entire micrometer range.
- Meet or exceeds U.S. Federal specification GGG-G-15C and ISO 9000 requirements.
- Gauge blocks include: .105, .210, .315, .420, .500, .605, .710, .815, .920 & 1.000".
- Optical flats for checking micrometer flatness are .500 & .5125"
- Manufacturer's calibration certificate included.
- Completed with fitted case.

Grade AS-0= Grade 2(At) : +4/-2 millionth

Grade AS-0
4101-0032

Dasqua® MICROMETER HEADS

- Used for improving accuracy in machines, gaging, test equipment, electronics, optical instruments and machine instruments.
- Satin chrome finished-no glare and resists rust.
- Quick reading on thimble.
- Flat face spindle with high precision.
- Rachet thimble and threads are hardened ground and lapped for consistent repeatability and accuracy.
- Quick and easy adjustment.
- Carbide measuring surfaces ground for longer service life.

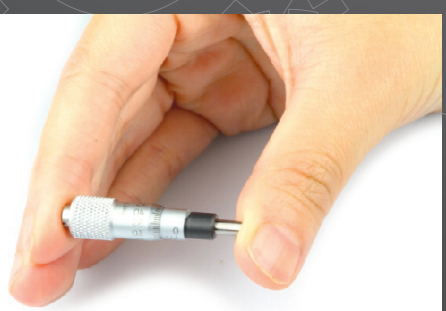
0.001" GRADUATION

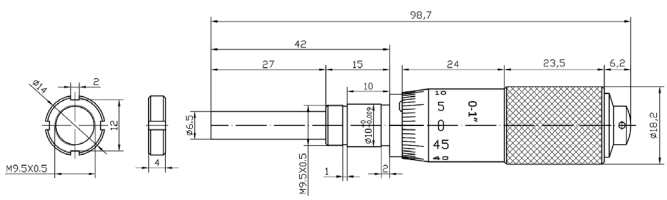
Item#	Range	Accuracy
4812-5105*	0-0.25"	0.0015"
4812-5110	0-0.5"	0.0015"
4812-5115	0-1"	0.0015"
4812-5120	0-2"	0.0015"



* Limited Supply

0~1" Range
4812-5115





PRECISION MEASURING TOOLS

MICROMETER STANDS

- Keep hands free for operating micrometer and positioning workpiece.
- Perfect for batch or mass production measurements in manufacturing and quality assurance.
- Blue enamel finish.
- Very sturdy and stable.
- Case iron.

Dasqua® 7111–1105

HHIP 4401–0043

Work For Micrometers Up To 100mm/4"



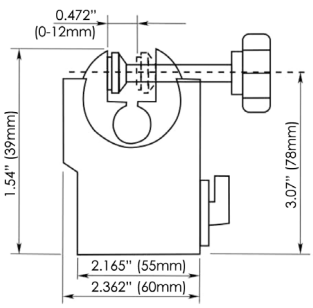
Dasqua® MAGNETIC BASE MICROMETER STAND WITH ON/OFF SWITCH

NEW

- **Hands-free operation** keeps the micrometer steady for faster, more consistent measurements.
- **Magnetic base securely mounts** to ferrous surfaces for added stability and convenience.
- **Adjustable clamp accommodates various micrometers** for versatile shop use.
- **Heavy-duty, low-profile design** provides a stable platform and helps reduce measurement errors.

7111–1000





BALL ATTACHMENT SET

- Used for measuring parts with rounded surfaces
- Ball attachment is applied by snapping onto end of either anvil or spindle.
- **Anvil Diameter:** 5mm (1.969")
- **Includes:** 2 Balls, 2 Sleeves

4200–0135



7 PC ANVIL ATTACHMENT KIT FOR OUTSIDE MICROMETERS

- Turns your micrometer into 7 different tools.
- Set contains: ball, spline, knife, super spline, blade, comparator.
- Fits all brands of outside micrometers.
- Attachments other than ball are .500" long. This mount must be subtracted from the total reading.
- Hardened and ground.



4200–0131* (Made in USA)

* Limited Supply

4200–0130

PORTABLE MICROMETER STAND

- Micrometer stand is uniquely designed for easy locking and carrying around.
- Stand can be folded to dimension: 4.6" x 3.2" x 1.5"
- Lacquered cast iron stand weighing 2 lbs.

4401–0044



MICROMETER SOLD SEPARATELY

METAL CASES - FOR OUTSIDE MICROMETER SETS

- Well made aluminium case.
- Durable foam inserts for better protection.
- Fits most outside micrometer sets on the market.



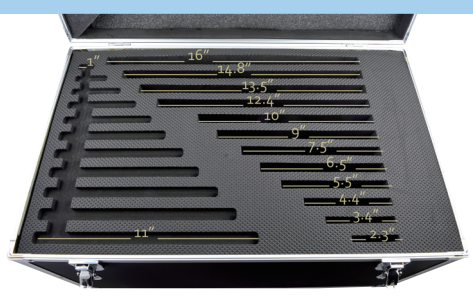
0-6" Micrometer Case
4200–0166CASE

0-12" Micrometer Case
4200–0163CASE

0-12" Case Shown



MICROMETERS NOT INCLUDED



0-12" Case Shown

PRECISION MEASURING TOOLS

Dasqua® OUTSIDE MICROMETERS

DIN 863



4112-5110 Shown



- Strictly made in accordance with DIN 863.
- Ratchet stop for constant pressure.
- Spindle thread hardened, ground and lapped for ultimate accuracy.
- Clear graduations laser-etched on satin chrome finish for easy reading.
- Spindle lock.
- Carbide measuring surfaces ground for longer service life.
- Standards included above 0-1" micrometer.
- Fitted case.

0.001" GRADUATION

Item#	Inch	(mm) A	B	C	L	W	H	Accuracy
4112-5105*	0-1"	31	29.5	Ø6.5	133	58.5	18	0.0015"
4112-5110*	1-2"	56	38	Ø6.5	137.2	76	18	0.0015"
4112-5115*	2-3"	81	51	Ø6.5	162.7	91	18	0.002"
4112-5120*	3-4"	106	63.5	Ø6.5	210.5	105	18	0.002"

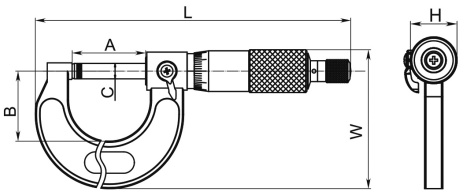
* Limited Supply



Included

0.0001" GRADUATION

Item#	Inch	(mm) A	B	C	L	W	H	Accuracy
4112-0105	0-1"	31	29.5	Ø6.5	133	58.5	18	0.00015"
4112-0110	1-2"	56	38	Ø6.5	137.2	76	18	0.00015"
4112-0115	2-3"	81	51	Ø6.5	162.7	91	18	0.0002"
4112-0120	3-4"	106	63.5	Ø6.5	187.7	105	18	0.0002"
4112-0125	4-5"	131	76	Ø6.5	214.5	125	18	0.00025"
4112-0130	5-6"	156	89	Ø6.5	251	142	18	0.00025"

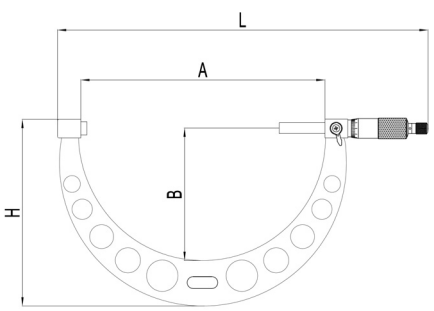


Dasqua® LARGE OUTSIDE MICROMETERS

DIN 863

- Strictly made in accordance with DIN 863.
- Ratchet stop for constant pressure.
- Spindle thread hardened, ground and lapped for ultimate accuracy.
- Clear graduations laser-etched on satin chrome finish for easy reading.
- Spindle lock.
- Bigger size for larger range.
- Carbide measuring surfaces ground for longer service life.
- Zero setting standard bar
- Tapered designed frame for easier use in narrow slots and tight locations.
- Rigid steel frame is ribbed for extra strength.
- Fitted case.





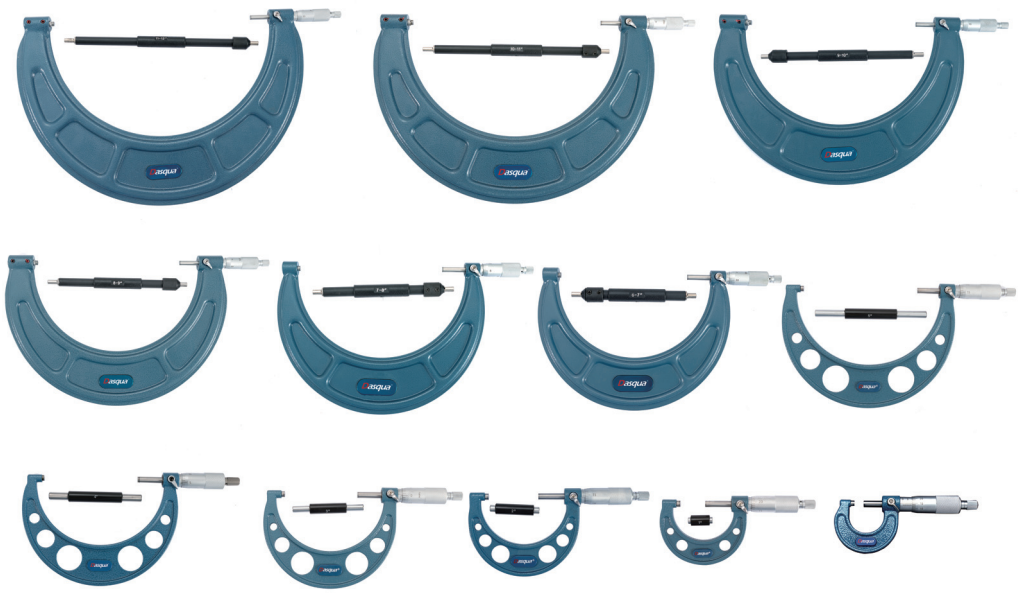
0.0001" GRADUATION

Item#	Range	(mm) A	B	H	L	Accuracy
4042-0435	6-7"	180	115	160	290	0.00025"
4042-0440	7-8"	206	125	173	315	0.00025"
4042-0445	8-9"	232	140	190	340	0.0003"
4042-0450	9-10"	258	145	198	366	0.0003"
4042-0455	10-11"	281	160	220	392	0.00035"
4042-0460	11-12"	308	167	230	416	0.00035"

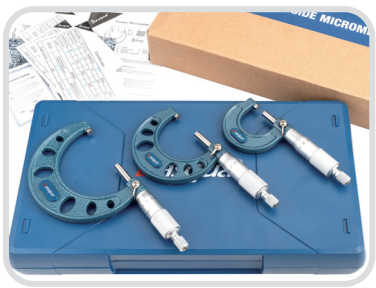
Dasqua® OUTSIDE MICROMETER SETS

DIN 863

- Strictly made in accordance with **DIN 863**.
- Ratchet stop for constant pressure.
- Spindle thread hardened, ground and lapped for ultimate accuracy.
- Clear graduations laser-etched on satin chrome finish for easy reading.
- Spindle lock.
- Standards are included above 0-1" micrometer.
- Plastic or aluminium fitted case.



Plastic Case



Aluminium case



0.001" GRADUATION

Item#	Set/pcs	Range	Case Provided
4112-0206	3	0-3"	Plastic Case

0.0001" GRADUATION

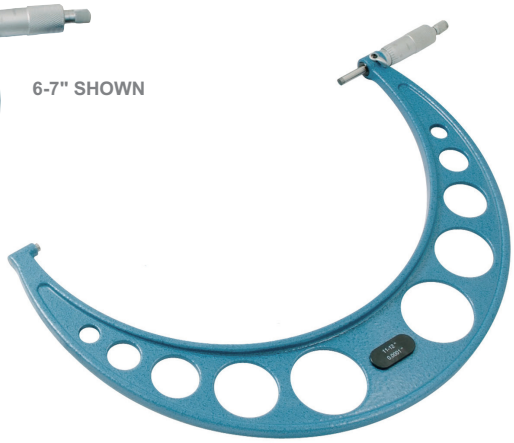
Item#	Set/pcs	Range	Case Provided
4112-0006	3	0-3"	Plastic Case
4112-0215	6	0-6"	Aluminium Case
4112-0203	12	0-12"	Aluminium Case

SOLID METAL FRAME LARGE OUTSIDE MICROMETERS

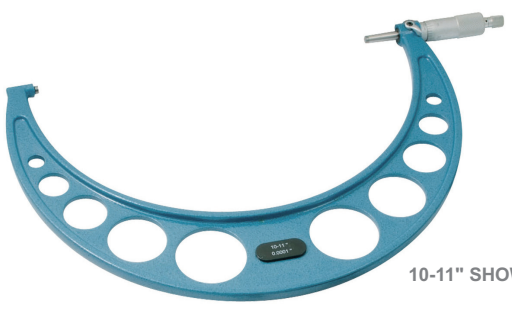
- Solid Mitutoyo style metal C-shape frame for all sizes.
- Graduation: 0.0001"
- Hardened and precision ground anvil spindle thread with microlap finish on ends.
- Positive locking clamp with ratchet stop.
- Carbide tipped faces.
- Meets or exceeds federal specifications.
- Supplied with fitted case and standards.



6-7" SHOWN



11-12" SHOWN



10-11" SHOWN

0.0001" GRADUATION

Item#	Range
4200-0157	6-7"
4200-0158	7-8"
4200-0159	8-9"
4200-0160	9-10"
4200-0161	10-11"
4200-0162	11-12"

Dasqua® METRIC OUTSIDE MICROMETER & SET

DIN 863

- Strictly made in accordance with DIN 863.
- Spindle thread hardened, ground and lapped for ultimate accuracy.
- Clear graduations laser-etched on satin chrome finish for easy reading.
- Spindle lock.
- Ratchet stop for constant pressure.
- Made with thermal protection frame.





3 PC Set
0~75mm Range
4111-8205

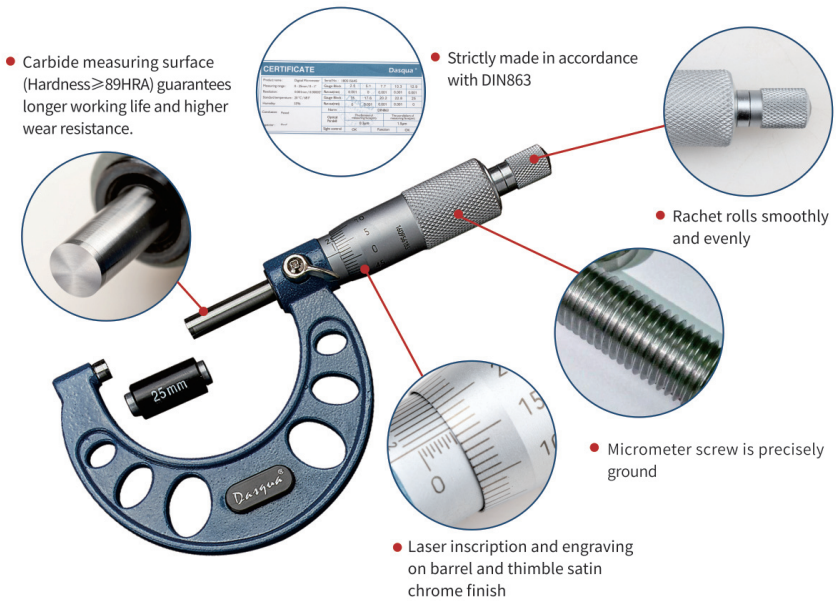
MICROMETER ONLY

Item#	Range	Graduation	Case
4111-6405	0-25mm	0.01mm	Plastic

Dasqua® METRIC OUTSIDE MICROMETERS & SET

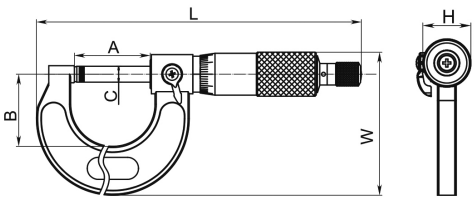
DIN 863

- Strictly made in accordance with **DIN 863.**
- Ratchet stop for constant pressure.
- Spindle thread hardened, ground and lapped for ultimate accuracy.
- Clear graduations laser-etched on satin chrome finish for easy reading.
- With spindle lock.
- Carbide measuring surfaces ground for longer service life.
- Standards included above 0-25mm micrometer.
- Fitted case.



3 PC Set
0~75mm Range
4111-8206*

* Limited Supply



0.01MM GRADUATION

Item#	Range	(mm) A	B	C	L	W	H	Accuracy
4111-8105	0-25mm	31	29.5	Ø6.5	133	58.5	Ø18	0.004"
4111-8110	25-50mm	56	38	Ø6.5	137.2	76	Ø18	0.004"
4111-8115	51-75mm	81	51	Ø6.5	162.7	91	Ø18	0.005"
4111-8130	125-150mm	156	89	Ø6.5	263.8	142	Ø18	0.006"



Included

DIGITAL READOUT OUTSIDE MICROMETER

- Anvil and spindle hardened and precision ground with microlap finish.
- Carbide tipped measuring faces.
- Ratchet stop.
- Meets or exceeds U.S. Federal specifications.
- Supplied with fitted case.

0.0001" GRADUATION



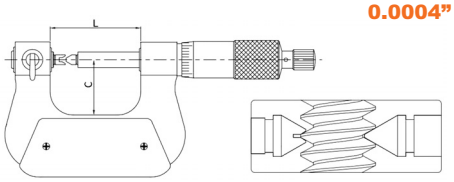
0~1" Range
4200-0020

Dasqua® SCREW THREAD MICROMETERS

DIN 863

- Measures external thread pitch diameters with high accuracy.
- Supplied with interchangeable 55° and 60° V-anvils for multiple thread forms.
- Ratchet stop provides consistent measuring pressure and repeatable results.
- Manufactured to DIN 863 standards for dependable inspection performance.
- Hardened measuring faces resist wearing for long service life.
- Used by the toolroom, machining, quality control, and inspection departments.

0.0004" (0.01mm) GRADUATION



0~1" Range
4107-3005

ROTATING SPINDLE TYPE

NEW



1~2" Range
4107-3010

SPECIFICATIONS

Item#	Range	Graduation	L	C	Accuracy
4107-3005	0-1"	0.0004" (0.01mm)	1.654" (42mm)	1.024" (26mm)	0.00016" (0.004mm)
4107-3010	1-2"	0.0004" (0.01mm)	2.638" (67mm)	1.496" (38mm)	0.00016" (0.004mm)

SCREW THREAD MICROMETER KITS

- Direct reading of pitch diameter in threads with interchangeable anvil and spindle pairs.
- Anvils and spindles made of tool steel, hardened and ground.
- Micro fine slant line graduations.
- Ratchet stop.
- Fitted case.

0.001" GRADUATION





Anvil in Pairs	Pitch TPI
#1	64~48
#2	44~28
#3	24~14
#4	13~9
#5	8~5
#6	4.5~3.5
#7	28~20
#8	18~12
#9	11~7
#10	6~4.5

Item#	Range	Anvils
4200-0226	0-1"	#1-5
4200-0227	1-2"	#2-6
4200-0228	2-3"	#7-10

Pro-Series INCH & METRIC THREAD WIRE SET

- Measures all 60° threads
- 48 pieces -16 different sizes
- Measures all threads from 3 to 48 threads per inch and all metric from 0.5mm to 6mm pitch.
- 3 wire methods of measuring external threads.
- Wires are fitted in a plastic case stamped with sizes.
- Chart compiled from the U.S. Standard Handbook H.28. and gives proper sizes & measurements over wires.
- Comes with 4 wire holders, each holder has 2 pair of holes, each pair of holes for different size of wire and make pitch diameter measuring much easier.







4200-0240





INCH & METRIC THREAD WIRE SET

- Measures all metric threads from .5mm to 6mm.
- 48 wires; 16 different sizes.
- Measures all 60° thread
- 3 to 48 threads per inch.
- Laminated chart included.
- Complete in vinyl case.



4200-0241

THREAD TRIANGLE

- One pair gauges all 60° threads from 4-80 pitch, standard and special.
- For any thread, mic the distance over the triangles, then refer to the chart to determine class of fit
- For special threads, add constant to nominal O.D. and check against mic reading to determine class of fit



MADE IN USA

Standard 60°
4901-0063
PER PAIR



For Checking All Standard 60° Threads

PRECISION MEASURING TOOLS

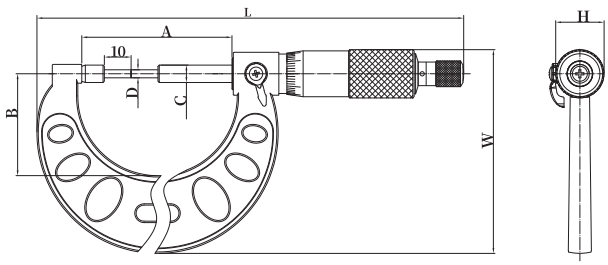
Dasqua® VERNIER SPLINE MICROMETERS

DIN 863

- For measuring spline shafts, slots and keyways.
- Strictly made in accordance with DIN 863.
- Graduation: 0.0001".
- Spindle thread hardened, ground and lapped for ultimate accuracy.
- Barrel and thimble have satin chrome finish.
- Carbide measuring face.
- Clear graduations on satin chrome finish for easy reading.
- Quick and easy zero adjustment on sleeve.
- Positive lever locking clamp and rachet stop for exact readings.
- The anvil & shaft have a small diameter for measuring splined shafts, slots, and keyways.
- Supplied with standards bar except 0-1" model.
- Non-rotating spindle.
- Supplied with fitted case.



0.0001" GRADUATION



Item#	Range	Resolution	(mm) A	B	C	L	W	H	Accuracy
4710-2305	0-1"	0.0001"	56	38	Ø6.5	137.2	76	Ø18	0.004mm/0.00015"
4710-2315*	2-3"	0.0001"	80.8	44	Ø6.5	187.7	105	Ø18	0.004mm/0.0002"

* Limited Supply

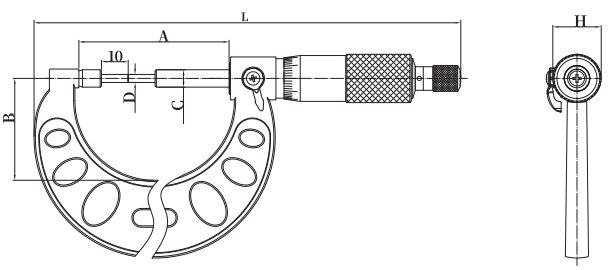
Dasqua® POINTED SPINDLE & ANVIL MICROMETERS

DIN 863



- For measuring the web thickness of drills, small grooves, and other hard to reach dimensions.
- Strictly made in accordance with DIN 863.
- Spindle thread hardened, ground and lapped for ultimate accuracy.
- Barrel and thimble have satin chrome finish.
- Carbide measuring face.
- Clear graduations on satin chrome finish for easy reading.
- Quick and easy zero adjustment on sleeve.
- Positive lever locking clamp and rachet stop.
- Size 1-2" and 2-3" furnished with standards for micrometer reading verification.
- Supplied with fitted case.

0.0001" GRADUATION





Item#	Range	(mm) A	B	C	L	H	Accuracy
4610-2305	0-1"	56	38	Ø6.5	137.2	Ø18	0.0004"
4610-2310*	1-2"	81	51	Ø6.5	162.7	Ø18	0.0004"
4610-2315*	2-3"	106	63.5	Ø6.5	187.7	Ø18	0.0004"

* Limited Supply

Dasqua® BALL SPHERICAL FACE MICROMETER

DIN 863

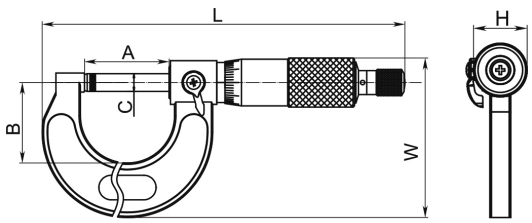
- For measuring wall thickness of various curvedparts & tubes, including barings, sleeves, collars, rings, cylinders and from a hole to an edge.
- Strictly made in accordance with DIN 863.
- Accuracy: 0.0001"/0.004mm.
- Spindle thread hardened, ground and lapped for ultimate accuracy.
- Barrel and thimble satin chrome finish.
- Carbide measuring face.
- Clear graduations on satin chrome finish for easy reading.
- Quick and easy zero adjustment on sleeve.
- Positive lever locking clamp and rachet stop.
- Ideal for measuring convex curves directly without having to subtract the diameter of the ball.
- Supplied with fitted case.





0.0001" GRADUATION

0-1" Range
4510-2305



SPECIFICATIONS:

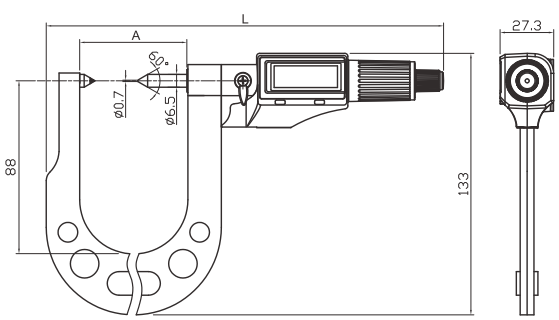
Range	(mm)						Accuracy
	A	B	C	L	W	H	
0-1"	31	29.5	Ø6.5	133	58.5	18	0.00015"

Dasqua® 0.3-1.3" DIGITAL ELECTRONIC DISC BRAKE MICROMETER

DIN 863 | Battery + CR2032 | mm/in

- Suitable for a wide range of disc brake rotor measurements.
- Provides precise measurements essential for automotive and engineering tasks.
- Strictly made in accordance to DIN 863.
- Stainless steel construction: Durable and resistant to wear, ensuring a long lifespan even in rugged environments.
- Clear and easy-to-read display reduces reading errors and improves speed.
- Carbide measuring surface.
- Adapts to measuring difficult dimensions that are hard to reach.

0.3-1.3" RANGE
4520-1005





SPECIFICATIONS:

Range	Resolution	(mm)		Accuracy
		A	L	
0.3-1.3"/7-32mm	0.00005"/0.001mm	44.5	192	0.0002"/0.004mm

INCH/METRIC RESOLUTION 0.0005"/0.01MM

Dasqua®

IP65 OIL/WATER PROOF DIGITAL ELECTRONIC OUTSIDE MICROMETERS

IP65 COOLANT & FLUID RESISTANT | Battery + CR2032 | mm/inch | DIN 863

- Strictly made in accordance with DIN863 and with calibration certificate
- Clear easy to read graduation lines Laser inscription and engraving
- Carbide measuring surface (Hardness **≥89HRA**) guarantees longer working life and higher wear resistance.
- Precision ratchet thimble cap maintains uniform measuring pressure to reduce errors
- IP65 protection, ensuring precision performance in harsh environments
- Large easy-to-read LED screen

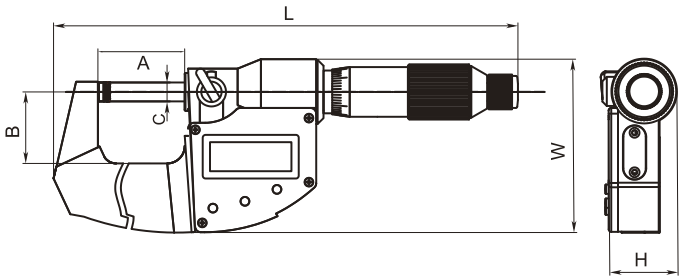


- **IP65 oil and waterproof protection** helps maintain reliable accuracy in coolant, oil, and shop-floor environments.
- **Carbide measuring faces (≥ 89HRA hardness)** provide superior wear resistance and longer service life.
- **Large LCD display with inch/metric conversion and absolute measurement** allows fast, error-free readings.
- **Precision ratchet stop with laser-engraved graduations** deliver consistent measuring force and easy readability for dependable results.



0-1"/0-25mm
4410–1105

INCH/METRIC
0.00005" GRADUATION





BUY A COMBO & SAVE !

0-1" MICROMETER & STAND COMBO
9999–0040
INCLUDES: 4410-1105 & 4711-1105

MICROMETER STAND

- Keep hands free for operating micrometer and positioning workpiece.
- Perfect for batch or mass production measurements in manufacturing and quality assurance.
- Blue enamel finish.
- Very sturdy and stable.
- Cast iron.

Perfect for Batch or Mass Production



INDIVIDUAL MICROMETERS:

Item#	Range	Resolution	(mm) A	B	C	L	W	H	Accuracy
4410-1105	0-1"/0-25mm	0.00005"/0.001mm	29.8	24.5	Ø6.5	159.5	59.6	23.5	0.00015"/0.003mm
4410-1110	1-2"/25-50mm	0.00005"/0.001mm	55.3	31	Ø6.5	188.5	75.7	23.5	0.00015"/0.003mm
4410-1115	2-3"/50-75mm	0.00005"/0.001mm	80.8	44	Ø6.5	219	90.7	23.5	0.00015"/0.004mm
4410-1120*	3-4"/75-100mm	0.00005"/0.001mm	105.8	56	Ø6.5	246.5	107.2	23.5	0.00015"/0.004mm

* Limited Supply

Dasqua® DIGITAL ELECTRONIC OUTSIDE MICROMETERS
WITH STAINLESS STEEL SPINDLE

- Spindle ground twice, reducing pitch error to less than 1", surpassing previous standards and reaching world class precision.
- Strictly made in accordance with DIN 863
- Battery: CR2032

EXTREME PRECISION FOR ACCURATE MEASUREMENT!

Battery + CR2032 | mm/in | DIN 863

- **Utilization of a new special carbide on the measuring anvil, replacing the traditional easily-worn carbide tip, ensuring prolonged durability.**
- **Integration of stainless steel on the spindle instead of carbon steel, offering enhanced strength and corrosion resistance**
- **Equipped with a ratchet stop mechanism to maintain a constant force of 5 to 8 newtons, representing a 20% increase compared to standard models.**



4230-2005 Shown

INCH/METRIC

0.0005" RESOLUTION



4230-2020 Shown

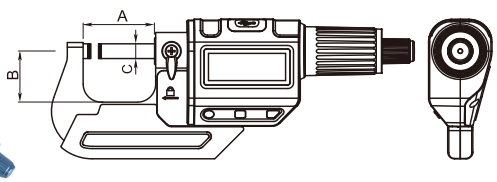







4230-2025 Shown


4230-2030 Shown



REPLACEMENT BATTERY (ITEM #4102-0032)

Item#	Range	Resolution	(mm) A	(mm) B	(mm) C	Accuracy
4230-2005	0-1"/0-25mm	.00005"/.001mm	31.5	22.5	Ø6.5	.00012"/.003mm
4230-2010	1-2"/25-50mm	.00005"/.001mm	56.5	31	Ø6.5	.00012"/.003mm
4230-2015	2-3"/50-75mm	.00005"/.001mm	81.5	44	Ø6.5	.00016"/.004mm
4230-2020	3-4"75-100mm	.00005"/.001mm	107.1	56	Ø6.5	.00016"/.004mm
4230-2025*	4-5"/100-125mm	.00005"/.001mm	132	66	Ø6.5	.00020"/.005mm
4230-2030*	5-6"/125-150mm	.00005"/.001mm	156.5	80	Ø6.5	.00020"/.005mm

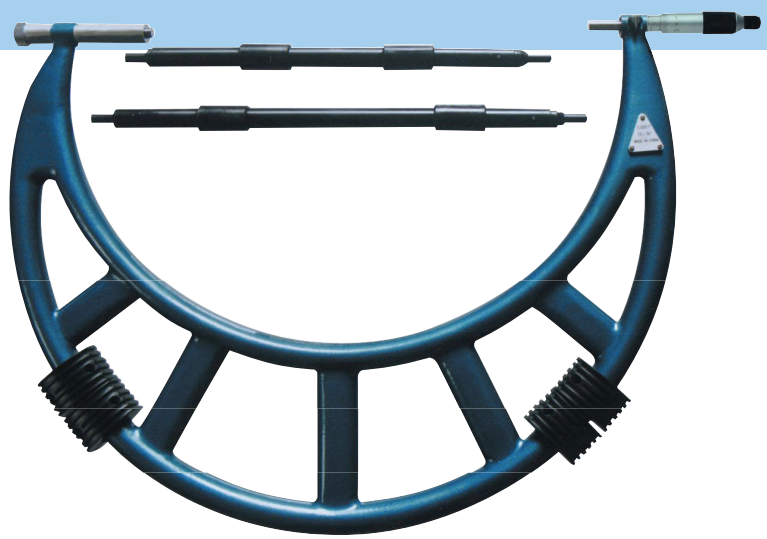
* Limited Supply

INTERCHANGEABLE ANVIL MICROMETERS

- Long range outside micrometers.
- Pipe combined steel frame provides lightness plus extreme rigidity for perfect balance.
- Micro fine graduations.
- Carbide tipped measuring faces.
- Ratchet stop.
- Fitted case.
- Standards included.

0.001" GRADUATION

12~16" Range
4200-0171



Item#	Range	Accuracy
4200-0171	12-16"	.001"
4200-0172	16-20"	.001"
4200-0173	20-24"	.001"
4200-0174	24-28"	.001"
4200-0175*	28-32"	.001"

* Limited Supply

Data output

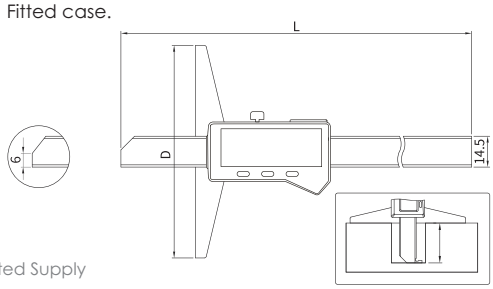
DIN 862

Dasqua® DIGITAL ELECTRONIC DEPTH CALIPERS



INCH/METRIC
0.0005" GRADUATION

- Used to measure step and depth.
- Made of solid stainless steel, widened and thickened.
- Strictly made in accordance with DIN 862.
- Hardened, ground and lapped measuring surfaces for longer service life.
- Large, easy to ready display.
- Standard CR-2032 (3V) battery included.
- Fitted case.



REPLACEMENT BATTERY (ITEM #4102-0032)

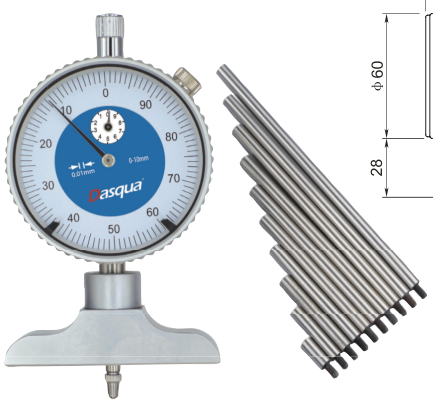
Item#	Range	Resolution	(mm) D	(mm) L	Accuracy
9021-2005	0-6"/0-150mm	0.0005"/.01mm	100	230	±0.03mm
2001-2010	0-8"/0-200mm	0.0005"/.01mm	100	280	±0.03mm
2001-2015*	0-12"/0-300mm	0.0005"/.01mm	100	380	±0.04mm

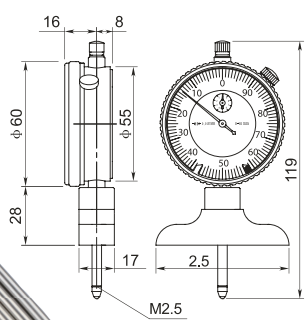
* Limited Supply

Dasqua® 0-22" DIAL DEPTH GAGE KIT

- Used to measure depth of holes or parts with grooved or elevated surfaces.
- Dial Indicator for easy and clear reading.
- Hardened base with fine lapped contact surface.
- Extension rods of different lengths offering larger measuring ranges.

0.001" GRADUATION





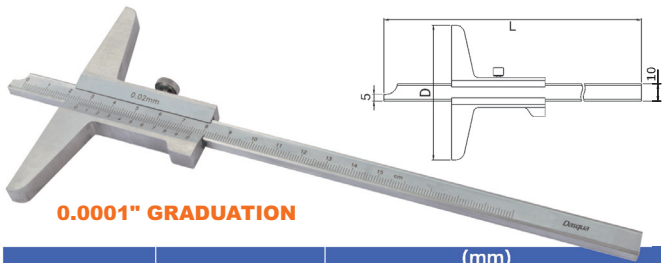
0~22" Range
5822-4100

Dasqua® MONOBLOCK DEPTH VERNIER GAGES

Limited Supply!

DIN 862

- Hardened ground jaws with precision lapped measuring face.
- Satin chrome finish, hardened stainless steel throughout for long life.
- Distinct lines and figures etched against satin chrome finish.
- Strictly made in accordance with DIN 862.



0.0001" GRADUATION

Item#	Range	(mm) L	(mm) D	Accuracy
3001-2901	0-6"	250	100	±0.03
3001-2903	0-8"	300	100	±0.03
3001-2905	0-12"	400	100	±0.04

PRECISION MEASURING TOOLS

Dasqua® DEPTH MICROMETERS

- For measuring depth of holes, parts with grooves or elevated surfaces.
- Satin chrome finish.
- Rachet thimble and threads are hardened, ground and lapped for consistent repeatability and accuracy.
- Positive locking clamp.
- Clear and easy-to-read graduations.
- Fitted case.

0.001" GRADUATION

Item#	Range	Accuracy	No. of Anvils	(mm) Length
4612-5105	0-1"	±0.0016"	1	102
4612-5110	0-2"	±0.0016"	2	102
4612-5115	0-3"	±0.0025"	3	102
4612-5120	0-4"	±0.0025"	4	102
4612-5125	0-6"	±0.0025"	6	102



DIGITAL ELECTRONIC DEPTH MICROMETER KIT

- High accuracy Interchangeable rods
- High contrast LCD display
- Spherical end for easy straight measurement
- 4" base
- Friction thimble
- Standard SR44(1.55V) battery included
- Fitted case

INCH/METRIC 0.0005" GRADUATION

REPLACEMENT BATTERY (ITEM #4102-0030)



0~6"/0~150mm
4500-0406

Dasqua® 0-16" 7 PC DIGITAL ELECTRONIC DEPTH GAGE SET

DIN 863 | Battery + CR2032 | mm/in

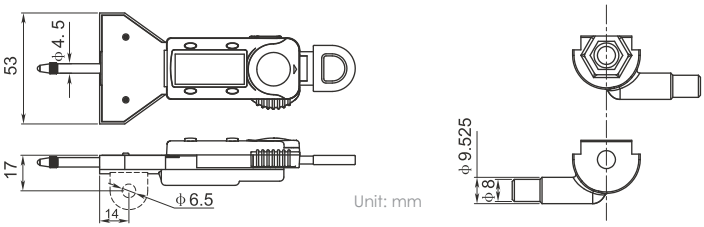
- Allows for versatile applications, accommodating a broad spectrum of measurement needs.
- Large, easy-to-read display enables fast and clear reading, minimizing user error.
- Hardened Stainless Steel Base and Rods: Durable materials resist wear, ensuring long-lasting performance and consistent accuracy.
- Zero-reset at any position, which is useful for comparative depth measurements.
- Spindle hardened ground and lapped for ultimate accuracy.
- Strictly made in accordance to DIN 863.



7 PC SET, 0-16"
4701-1205



INCH/METRIC
RESOLUTION 0.0005"/0.01MM





SPECIFICATIONS:

Range	Resolution	Travel	Accuracy	Anvil
0-16"/0-400mm	0.0005"/0.01mm	0-1"/0-25mm	0.0015"/0.03mm	1/1/2/3/4/5"

PRECISION MEASURING TOOLS

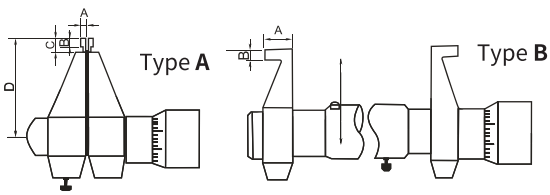
Dasqua® INSIDE MICROMETERS

- Used to measure various inside dimensions.
- Ratchet stop for constant pressure.
- Spindle thread hardened, ground and lapped for ultimate accuracy.
- Clear graduations laser-etched on satin chrome finish for easy reading.
- Spindle lock.
- Carbide measuring surfaces ground for longer service life.



Limited Supply!

0.001" GRADUATION



Item#	Range	Graduation	Accuracy	Calibration ring	Type	(mm) A	B	C	D
4912-5105	0.2-1.2"	0.001"	±0.00025"	Yes	A	2.3	4.5	5.5	27.5
4912-5110	1-2"	0.001"	±0.0003"	Yes	B	12.3	4.5	/	27.5
4912-5120	3-4"	0.001"	±0.0004"	No	B	12.3	4.5	/	27.5

Dasqua® TUBULAR INSIDE MICROMETERS

DIN 863



- Wide range by combining extensions rods and anvils with micrometer head
- Clear graduation laser etched on satin chrome finish for easy reading.
- Strictly made in accordance with DIN 863.
- Satin chrome finish.
- Supplied with a standard gauge for zero setting.
- Micrometer heads vary from 50mm to 63mm. Each micrometer heas is with an extension rod depending on the customers' desired measuring range.
- Measuring rods hardened, ground and lapped.
- Fitted case.



0.001" GRADUATION

Limited Supply!

Item#	Range	Graduation	Extension Rod	Accuracy
4312-5103	2-5.5"	0.001"	Micrometer Head	0.0002"
4312-5106	2-4"	0.001"	0.5", 1"	0.00025"
4312-5109	2-12"	0.001"	1/2", 1" 2", 2", 4"	0.00045"
4312-5112	2-20"	0.001"	0.5", 1" 2"(2pcs), 4", 8"	0.00065"

INSIDE MICROMETER SETS

- The combining of extension rods provides a wide measuring range
- Carbide measuring faces
- Positive lock clamp
- Supplied with a standard caliper gage for zero setting
- Fitted Case



4200-0333 Shown

Limited Supply!

0.001" GRADUATION

Item#	Range
4200-0332	4 - 20"
4200-0333	4 - 36"



4200-0332 Shown

Dasqua® IP54 WATER PROOF ELECTRONIC INTERNAL 3 POINT HOLE MIKE SETS

IP54 COOLANT & FLUID RESISTANT

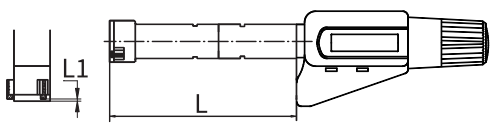
DIN 863

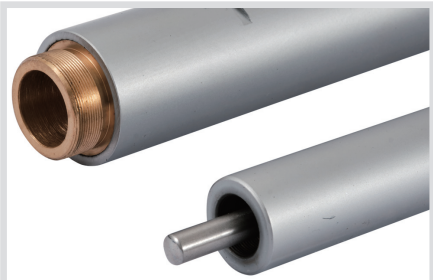
- Strictly made in accordance wit DIN 863.
- Hold function.
- Direct reading from clear large easy-to-read digital display.
- Self-centering micrometer hardened head; from 12mm with carbide measuring jaws for accurate & true measurement of internal diameters.
- Extension available for deep measuring.
- Setting rings included in all sets for adjustment.
- Ratchet stops providing correct contact pressure for accurate reading.
- Conact points are designed for measurements near the bottom of blind holes.
- Resolution: .00005"/.001mm
- Includes instant inch/millimeter conversion.
- Furnished in fitted case.





INCH/METRIC
0.0005" GRADUATION





Item#	Range	Resolution	No. of Setting Ring	Extension Rod Length	(mm)		Accuracy
					L	L1	
4511-6205*	0.275-0.5"/6-12mm	0.00005"/0.001mm	2 pc-8,10mm	100mm	1.5	54.5	0.004mm
4511-6220	2-4"/50-100mm	0.00005"/0.001mm	2 pc-62,87mm	150mm	0.5	114	0.005mm

* Limited Supply

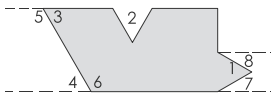
Dasqua® 18 PC ANGLE GAGE SET

- **Primary Angles:** 5°~90°; 5° steps.
- **1/2 Primary Angle:** 2.5°~45°
- **Complimentary Angle:** 17.5~90°, 5° steps
- Stainless steel material
- Each gage checks primary, 1/ 2 primary and complimentary angles
- Quick and accurate inspection of angle and I.D or O.D chamfers in or out of the machine.

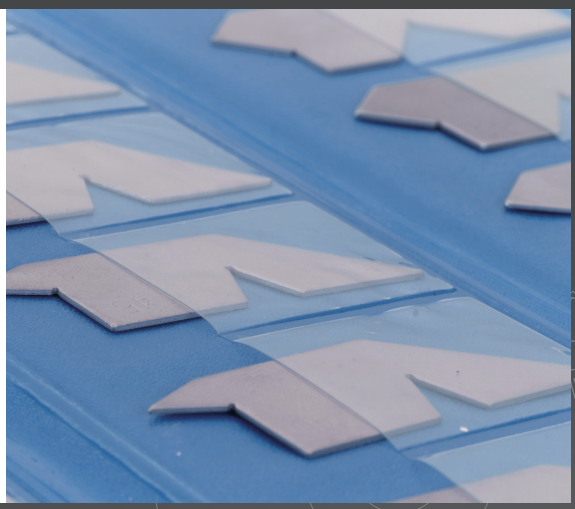
18 PC Set
1320-0005



Angle 3 is complementary angle
Angle 4, 5 are1 / 2 primary angle



Angle 1, 2, 3, 4 are primary angle
Angle 5, 6 are complementary angle
Angle 7, 8 are1 / 2 primary angle



PRECISION RADIUS GAGE SETS

- Five different gaging surfaces on each gage for both convex and concave radius.
- Made of satin finish stainless steel-rust and stain resistant.
- Handy gage holder included.



Item#	Set	Range
4901-0040	25pc	1/64"-17/64" x 64ths and 9/32"-1/2" x 32nds
4901-0026	26pc	0.010-0.500"
4901-0044	10pc	0.55-1.00" by 0.05"
4901-0047	26pc	0.5-13mm by 0.5mm

18 PC PRECISION ANGLE GAGE SET

- Stainless steel and satin chrome finished.
- Each gage has eight gaging surfaces.
- Quick inspection of angles and I.D. or O.D. chamfers-in or out of the machine.
- Each gage checks primary, 1/2 primary and complementary angles.
- Pouch included.



Item#	Primary Angle
4901-0045	5°~ 90° by 5°

35 PC GAGE SET



4400-1035



INCLUDES:
- **TELESCOPING GAGE SET** 6 PC 5/16-6" Range #**4200-0255**
- **SMALL HOLE GAGE SET** 4 PC .125-.500" Range #**4400-0009**
- **RADIUS GAGE SET** 25 PC 1/64-1/2" Range #**4901-0040**

Dasqua® RADIUS GAGE

- For testing of raised and recessed curves.
- Fine cut forms.
- Both concave and convex shaped blades become a pair.
- Radius size is marked on each gage.
- Locking clamp.

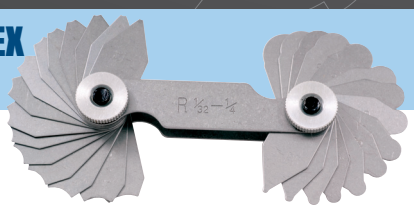
SATIN FINISH, STAINLESS STEEL - RUST, AND STAIN RESISITANT



Item#	Range	Step	Leaves Convex (Pcs)	Leaves Concave (Pcs)
1352-1005	1/32"-1/4"	1/64"	15	15

CONCAVE & CONVEX RADIUS GAGES

- Radius size marked on each gage.
- 16 each of the concave and convex gages.



Item#	Radius Range	Concave Blade	Convex Blade
4901-0102	17/64 -1/2" x 1/32	16	16
4901-0103	17/32 -1" x 1/32	16	16

FEELER GAGE SETS

- **Precision Spring Steel Blades** – Manufactured from high-quality spring steel for consistent thickness, flexibility, and long-lasting accuracy.
- **Accurate Clearance Measurement** – Ideal for checking engine valve lash, spark plug gaps, bearing clearances, and precise mechanical alignments.
- **Clearly Marked Measurements** – Each blade is clearly and permanently marked for fast identification during setup and inspection.
- **Durable & Corrosion Resistant** – Flexible blades allow easy access to tight spaces while resisting corrosion for long service life in shop environments.
- A must-have precision tool for automotive, industrial, and mechanical applications.

4906-0032 Shown



32 PC SET, mm
4906–0032



32 Sizes included:
0.03-0.04-0.05-0.06-0.07-0.08-0.09-0.10-0.12-0.15-0.18-0.20-0.23-0.25-0.28-0.30-0.32-0.35-0.38-0.40-0.45-0.50-0.55-0.60-0.65-0.70-0.75-0.80-0.85-0.90-0.95-1.00mm

26 PC SET, Inch
4906–0038

4906-0038 Shown





26 Sizes included:
0.0015-0.002-0.0025-0.003-0.004-0.005-0.006-0.007-0.008-0.009-0.010-0.011-0.012-0.013-0.014-0.015-0.016-0.017-0.018-0.019-0.020-0.021-0.022-0.023-0.024-0.025"

Dasqua® 20 PC METRIC BRASS FEELER GAGE FOR SPARK PLUGS

- Made from brass.
- Lock nut included.
- These feeler gages suit many applications, from checking engine valve clearances to fine-tuning spark plug gaps and aligning mechanical systems with pinpoint accuracy.
- Their flexibility enables easy access to tight spaces, while the corrosion-resistant brass construction ensures long-lasting performance.
- Each gage is clearly marked with measurements in metric.
- Engineered for mechanics and engineers alike, our feeler gages guarantee optimal tolerances during assembly or maintenance tasks.





Sizes included:
0.05, 0.10, 0.15, 0.20, 0.25, 0.30, 0.35, 0.40, 0.45, 0.50, 0.55, 0.60, 0.65, 0.70, 0.75, 0.80, 0.85, 0.90, 0.95, 1.00mm

LENGTH: 100MM

20 PC SET
1620–0100

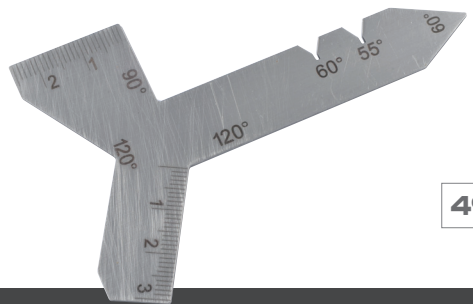
NON MAGNETIC





UNIVERSAL GRINDING GAGE

- **Precision Grinding Angle Measurement** – Accurately measures square and common grinding angles including 120°, 118°, 90°, 60°, and 55°.
- **Multi-Function Machinist Tool** – Designed as a twist drill gage and thread gage, making it ideal for tool grinding and inspection.
- **Durable Stainless Steel Construction** – Made from high-quality stainless steel for long-term accuracy and resistance to wear.
- **Compact & Shop-Ready Design** – Slim profile fits easily in toolboxes, aprons, or workbenches for quick reference at the grinder.
- **Essential for Accurate Tool Setup** – Helps maintain correct angles for drills, cutters, and tools to improve performance and tool life



4906–0030

CENTER GAGES

- Graduated in 14ths and 20ths on one side and 24ths and 32nds on the other
- Micro-fine graduations
- Accuracy meets Federal Specifications.



Standard 60°
4901–0060



HHIP PRO-SERIES
Standard 60°
4901–0059



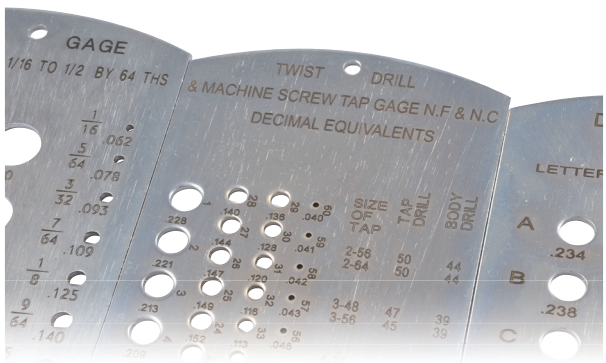
Whitworth or English Standard 55°
4901–0061

PRECISION MEASURING TOOLS

3 PC DRILL GAGE KIT - Inch, Numbers & Letters

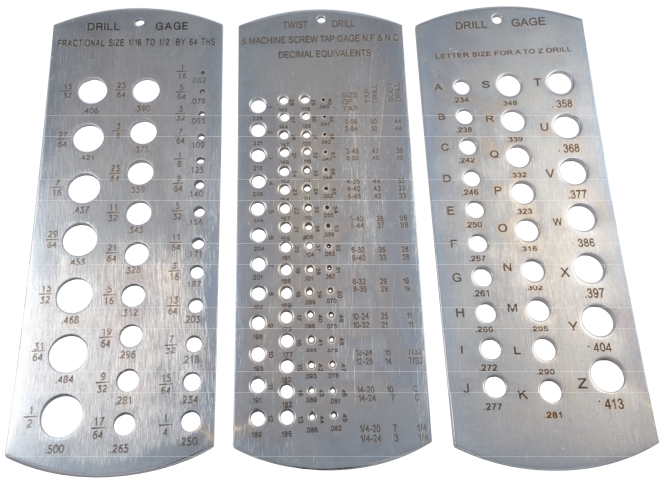
- **Complete 3 Pc. Set** – Includes Inch, Number, and Letter drill gages to quickly identify and verify drill bit sizes for any shop or jobsite.
- **Accurate and Size Measurement** – Precisely measures drill sizes from 1/16–1/2" x 64ths, #1–#60, and A–Z, ensuring correct bit selection every time.
- **Durable Stainless Steel** – Made from high-quality stainless steel for long-lasting performance, corrosion resistance, and shop durability.
- **Laser-Engraved Markings** – Clear, permanent laser markings won't fade or wear off, even with heavy daily use.
- **Compact and Portable** – Slim design with vinyl pouch included keeps gages protected and easy to store in toolboxes, drawers, or workbenches.

3 PC SET
4906–0043



Inch 1/16~1/2" GAGE:
6.5" Long x 2.5" Wide

Letters A-Z GAGE:
6.5" Long x 2.5" Wide

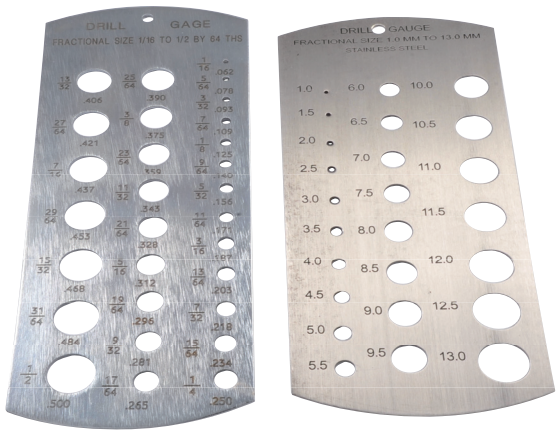


Numbers 1-60 GAGE:
6.5" Long x 2.5" Wide

2 PC DRILL GAGE KIT - Metric & Inch

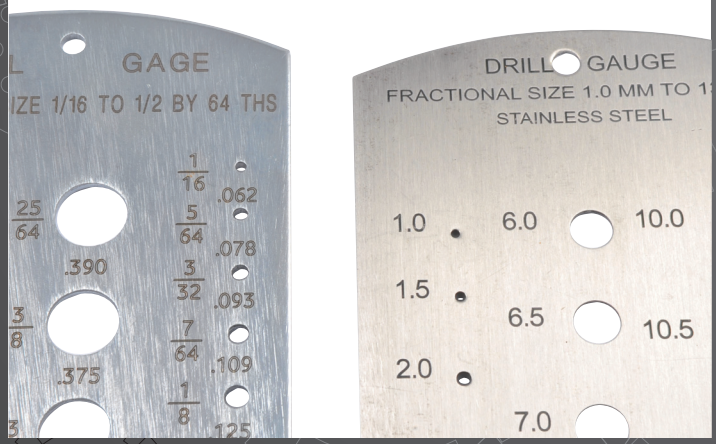
- **Complete 2 Pc. Set** – Includes Inch and Metric drill gages to quickly identify and verify drill bit sizes for any shop or jobsite.
- **Accurate and Size Measurement** – Precisely measures drill sizes from 1/16–1/2" x 64ths and 1-13mm x 0.05mm, ensuring correct bit selection every time.
- **Durable Stainless Steel** – Made from high-quality stainless steel for long-lasting performance, corrosion resistance, and shop durability.
- **Laser-Engraved Markings** – Clear, permanent laser markings won't fade or wear off, even with heavy daily use.
- **Compact and Portable** – Slim design with vinyl pouch included keeps gages protected and easy to store in toolboxes, drawers, or workbenches.

2 PC SET
4906–0042



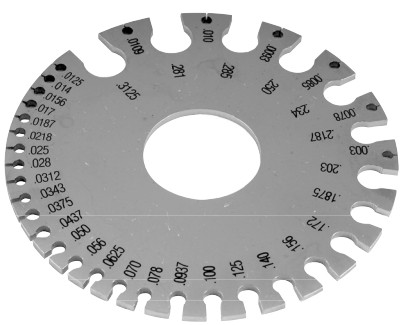
INCH GAGE:
6.6" Long x 2.5" Wide

METRIC GAGE:
6" Long x 2.6" Wide



36-0 WIRE MEASURING GAGE

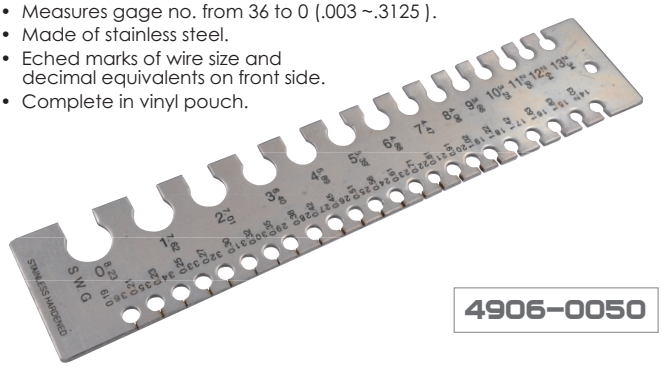
- For measuring wire diameter and non-ferrous sheets such as copper, brass, aluminum, etc.
- Measures gage no. from 36 to 0 (.003 ~.3125).
- Made of hardened steel and satin chrome finish.
- Marks of wire size on front, decimal equivalents on reverse side.
- Complete in vinyl pouch.



4901–0048

WIRE MEASURING GAGE - Rectangular Shape

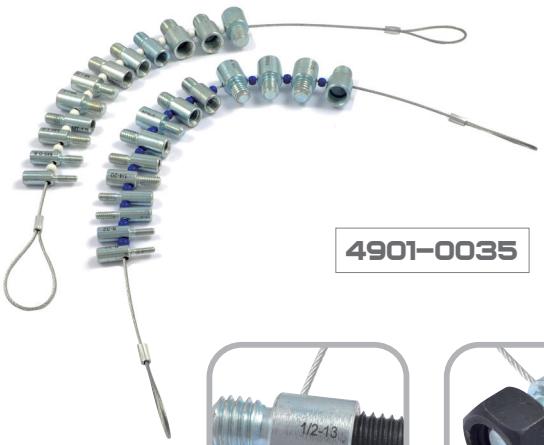
- For measuring wire diameter and non-ferrous sheets such as copper, brass, aluminum, etc.
- Measures gage no. from 36 to 0 (.003 ~.3125).
- Made of stainless steel.
- Eched marks of wire size and decimal equivalents on front side.
- Complete in vinyl pouch.



4906–0050

THREAD DETECTIVE/IDENTIFIER - Inch & Metric

- Nut and bolt thread identifier. Each size has a nut and bolt checker on the same gage.
- Inch nut and bolt sizes include #6-32, #8-32, #10-32, #10-24, 1/4-28, 1/4-20, 5/16-24, 5/16-18, 3/8-24, 3/8-16, 7/16-20, 7/16-14, 1/2-20 & 1/2-13
- Metric Nut and bolt sizes include M4x0.7, M5x0.8, M6x1.0, M7x1.0, M8x1.0, M8x1.25, M10x1.0, M10x1.25, M10x1.50, M12x1.25, M12x1.50 & M12x1.75
- Thread sizes are etched on each gage
- The individual gages rotate freely on the wire cable for fast thread verification
- Wire cable with loop for convenient hanging



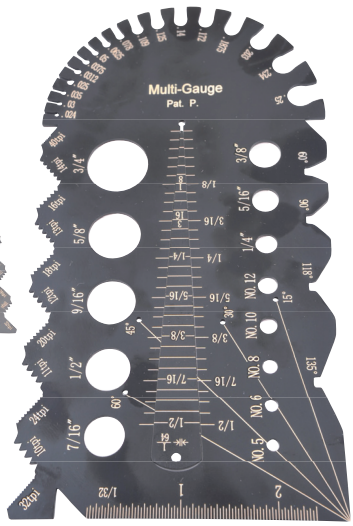
4901-0035



7-IN-1 MULTI-PURPOSE GAGE

- Made of tool steel with black coating
- Laser engraved markings.
- **7-IN-1 Combine:** Wire Sizes, Drill Sizes, Drill Point Gage, Screw Pitch Gage, Bore Gage, Ruler Gage & Protractor
- Tap/Drill recommendation chart included.
- Wire Gage: 0.024~0.25"
- Drill Sizes: #5, 6, 8, 10 ,12, 1/4", 5/16", 3/8", 7/16", 1/2" 9/16", 5/8" & 3/4"
- Drill Points: 60°, 90°, 118° & 135°
- Screw Pitch Gauge: 40th, 32nd, 24th, 20th, 18th, 16th, 14th, 13th, 12nd, 11th & 10th TPI
- Bore Gage: 1/64~1/2"
- Ruler: 2-1/2" (32nd)
- Protractor: 15°, 30°, 45°, 60° & 90°
- Vinyl pouch included.





6-5/8" Long x 3-1/2" Wide

4901-0055

44 PC THREAD DETECTIVE/IDENTIFIER SET - Inch & Metric

- All gages have individual sockets and are accurately and neatly arranged in a customized foam seat resulting in effortless selection of the required gage for swift identification of nut and bolt sizes.
- Especially useful in tight and confined spaces, these checkers surpass plastic and cable thread alternatives in convenience and effectiveness.
- Nut and bolt thread identifier. Each size has a nut and bolt checker on the same gage.
- Thread sizes are etched on each gage
- Index marked on the insert for easy identify
- Complete with a sturdy PVC box with a portable handle. Convenient to take anywhere.





44 PC SET
4901-0036



- **Inch nut and bolt sizes include** #6-32, #6-40,#8-32, #10-32, #10-24, 1/4-28, 1/4-20, 5/16-24, 5/16-18, 3/8-24, 3/8-16, 7/16-20, 7/16-14, 1/2-20, 1/2-13, 9/16-18, 9/16-12, 5/8-18, 5/8-11, 3/4-16, 3/4-10, 1-12 & 1-8.
- **Metric Nut and bolt sizes include** M3X0.5, M4x0.7, M5x0.8, M6x1.0, M7x1.0, M8x1.0, M8x1.25, M10x1.0, M10x1.25, M10x1.50, M12x1.25, M12x1.50, M12x1.75, M14x1.5, M14x2.0, M16x1.5, M16x2.0, M20x1.5, M20x2.5 & M24x2.0, M24x3.0.



SCREW PITCH GAGES

- Correct pitch is determined by matching blade teeth with threaders.
- Each blade clearly marked with proper thread size.
- Blades protected in sturdy steel case.
- Plastic pouch.
- Combination of 31 American National 60° and 24 Metric 60° thread leaves.



Item#	Thread Range	No. of Leaves	No. of Groups
4901-0030	4~42 TPI 60° & .25~6mm 60°	55	2

14 PC. SCREW PITCH GAGE

- **Accurate Thread Pitch Identification** – Quickly determines correct pitch by matching blade teeth with thread profiles.
- **Wide Thread Range Coverage** – Measures thread sizes from 10–40 TPI, suitable for a variety of fastening applications.
- **Clearly Marked Blades** – Each blade is clearly stamped with the proper thread size for fast, error-free readings.
- **Designed for Internal & External Threads** – Narrow blade profile allows checking threads in tight spaces and inside bores.



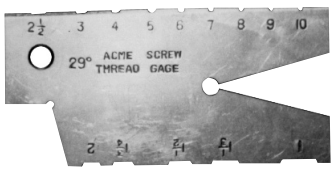


Item#	Thread Range	No. of Leaves	No. of Groups
4906-0027	10~40 TPI 60° 10 - 11 - 12 - 13 -14 -15 -18 - 20 - 24 - 27 - 28 - 32 - 36 - 40	14	2

29° ACME SCREW THREAD GAGE

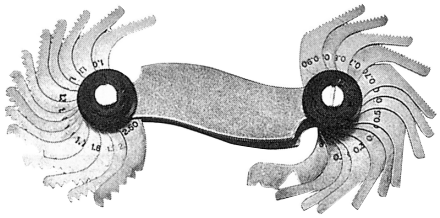
- Standard for grinding and setting tools when cutting Acme threads.
- Angle & edges are hardened and precision ground.
- Threads: 1, 1-1/3, 1-1/2, 1-3/4, 2, 2-1/2, 3, 4, 5, 6, 7, 8, 9 & 10.

4901-0031



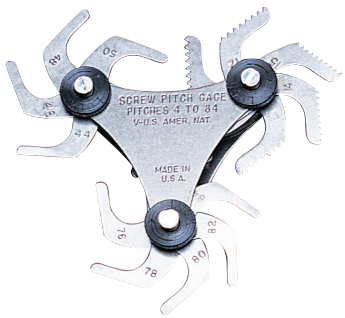
SCREW PITCH GAGES

- Correct pitch is determined by matching blade teeth with threaders.
- Each blade clearly marked with proper thread size.
- Narrow designed blade permits use for internal and external screw threads.
- Blades protected in sturdy steel case.



Item#	Thread Range	No. of Leaves	No. of Groups
4901-0028	.25~2.5mm 60°	28	2
4901-0029	0.5~7.0mm 60°	17	2
4901-0037	4~84 TPI 60°	51	2
4901-0038	4~62 TPI 55° & .25~6mm 60°	52	2
4901-0030	4~42 TPI 55° & .25~6mm 60°	55	2

SCREW PITCH GAGES



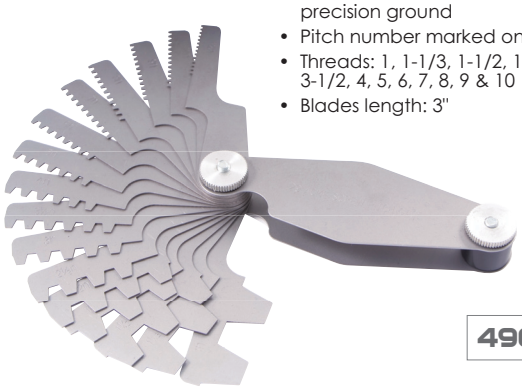
- Narrow designed blades permit use for internal and external screw threads.
- Correct pitch is determined by matching blade teeth with threads.
- Locking device at each end secures all blades for storage, or positions an individual blade for use.
- Each blade clearly marked with proper thread size
- Blades protected in sturdy steel case.

Limited Supply!

Item#	Thread Range	No. of Blades	No. of Groups
4901-0094	4~84 TPI 60°	51	3
4901-0095	4~56 TPI & .50~6.00mm	28	2
4901-0096	0.25~2.50mm	28	2
4901-0097	0.50~7.00mm	18	2

29° ACME SCREW THREAD PITCH GAGE-15 BLADES

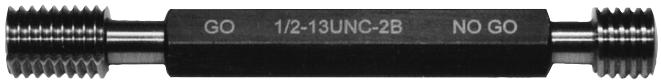
- Made of tool steel hardened and precision ground
- Pitch number marked on each blade
- Threads: 1, 1-1/3, 1-1/2, 1-3/4, 2, 2-1/2, 3, 3-1/2, 4, 5, 6, 7, 8, 9 & 10
- Blades length: 3"



4901-0033

THREAD PLUG GAGES & RING GAGES

- Gages are made in "X" tolerance
- Classes 2A and 2B for Inch, classes 6H and 6G for MM most commonly used for general applications including bolts, nuts, screws and similar fasteners





PRICED & SOLD BY SET

Metric Size	Plug Gages GO-NOGO with Handle Class 6H Item#	Ring Gages GO-NOGO Class 6G Item#
M2 x 0.4	4101-1102	4101-1202*
M3 x 0.5	4101-1103	4101-1203*
M2.5 x 0.45	4101-1125	4101-1225
M3.5 x 0.6	4101-1135	4101-1235*
M4 x 0.7	4101-1104	4101-1204
M5 x 0.8	4101-1105	4101-1205
M6 x 1.0	4101-1106	4101-1206
M7 x 1.0	4101-1107*	4101-1207*
M8 x 1.25	4101-1108	4101-1208
M10 x 1.25	4101-1110	4101-1210
M10 x 1.50	4101-1111	4101-1211
M12 x 1.75	4101-1112	4101-1212
M14 x 2.0	4101-1114	4101-1214
M16 x 2.0	4101-1116	4101-1216
M18 x 2.50	4101-1118	4101-1218*
M20 x 2.50	4101-1120	4101-1220
M22 x 2.50	----------	4101-1222
M24 x 3.0	4101-1124	4101-1224

Inch Size	Plug Gages GO-NOGO with Handle Class 2B Item#	Ring Gages GO-NOGO Class 2A Item#
4-40UNC	4101-0208	4101-0308*
5-40UNC	----------	4101-0310*
6-32UNC	4101-0212	4101-0312*
8-32UNC	4101-0214	4101-0314
10-24UNC	4101-0216	4101-0316
10-32UNF	4101-0217	4101-0317
1/4-20UNC	4101-0221	4101-0321
1/4-28UNF	4101-0222	4101-0322
5/16-18UNC	----------	4101-0324
5/16-24UNF	4101-0225	4101-0325
3/8-16UNC	4101-0227	4101-0327
3/8-24UNF	4101-0228	4101-0328
7/16-14UNC	4101-0230*	4101-0330*
7/16-20UNF	4101-0231	4101-0331
1/2-13UNC	4101-0233	4101-0333
1/2-20UNF	4101-0234	4101-0334

* Limited Supply

7 PC THREAD PLUG GAGE SETS

- Gages are made in "X" tolerance
- Class 2B for Inch, Class 6H MM set.
- Fitted ABS case included.



7 PC Inch Set
4101–0260
Includes: 8-32, 10-24, 1/4-20, 5/16-18, 3/8-16, 7/16-14 & 1/2-13

7 PC Metric Set
4101–1171
Includes: M3x0.5, M4x0.7, M5x0.8 M6x1.0, M8x1.25, M10x1.5 & M12x1.75



7 PC THREAD RING GAGE SETS - Metric

- **Precision Metric Thread Inspection** – Designed for accurate external thread verification in metric applications, ensuring consistent fit and quality control.
- **Class 6G Tolerance** – Manufactured to Class 6G standards for dependable GO / NO-GO thread inspection in professional machining environments.
- **High-Accuracy "X" Tolerance Manufacturing** – Produced with tight tolerances for repeatable, reliable measurement results in production and inspection settings.
- **Durable Hardened Steel Construction** – Built for long service life with wear-resistant, hardened steel gages suitable for frequent shop use.
- **Protective ABS Storage Case Included** – Supplied in a fitted ABS case for organized storage, protection, and easy transport.



4101-1176 Shown



7 PC GO Set
4101–1176
Includes: M3x0.5, M4X0.7, M5X0.8 M6X1.0, M8X1.25, M10X1.5 & M12X1.75

7 PC NO-GO Set
4101–1177
Includes: M3x0.5, M4x0.7, M5x0.8 M6x1.0, M8x1.25, M10x1.5 & M12x1.75

4101-1177 Shown



PRECISION MEASURING TOOLS

Dasqua® 6 PC STANDARD REACH TELESCOPING GAGE SETS

- Durable action (self-centering) for quick checking of inside measurements.
- Great tool for easy and accurate measurements of the true sizes of holes and slots.
- Satin chrome finish.
- Rigid handle with self-centering feature.
- Constant spring tension for uniform feel & smooth operation.
- Contact plunger automatically self-centering at all times and in all positions.
- Contact point ends are hardened tool steel and precision ground on a radius of the smallest hole the gage will enter.
- Tin coated for long life
- Length: 4.20~5.85"
- Includes fitted case.

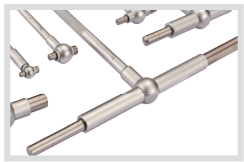


Range Up To 6" Reach

(Inch) Set Range	OAL Length
5/16~1/2	4.20
1/2~3/4	4.40
3/4~1-1/4	4.40
1-1/4~2-1/8	5.85
2-1/8~3-1/2	5.85
3-1/2~6.0	5.85

6 PC SET
5911-0002

6 PC SET TIN COATED
5911-0012







Dasqua® 6 PC LONG REACH TELESCOPING GAGE SETS

- Durable action (self-centering) for quick checking of inside measurements.
- Great tool for easy and accurate measurements of the true sizes of holes and slots.
- Satin chrome finish.
- Rigid handle with self-centering feature.
- Constant spring tension for uniform feel & smooth operation.
- Contact plunger automatically self-centering at all times and in all positions.
- Contact point ends are hardened tool steel and precision ground on a radius of the smallest hole the gage will enter.
- Tin coated for long life.
- Length: 12"
- Includes fitted case.

Range Up To 6" Reach

(Inch) Set Range	OAL Length
5/16~1/2	12"/300mm
1/2~3/4	12"/300mm
3/4~1-1/4	12"/300mm
1-1/4~2-1/8	12"/300mm
2-1/8~3-1/2	12"/300mm
3-1/2~6.0	12"/300mm





6 PC SET TIN COATED
5911-0011

6 PC SET
5911-0001

Dasqua® 12 PC STANDARD + LONG REACH TELESCOPING GAGE COMBO SET



Standard 6 pc Set

(Inch) Set Range	OAL Length
5/16~1/2	4.20
1/2~3/4	4.40
3/4~1-1/4	4.40
1-1/4~2-1/8	5.85
2-1/8~3-1/2	5.85
3-1/2~6.0	5.85

Standard Set (Up To 6") Shown Length: 4.20~5.85"

COMBO SET FOR EASY ACCESS TO MEASUREMENTS!

12 PC Combo Set
5911-9999



Long Reach Set (Up To 6") Shown Length:12"

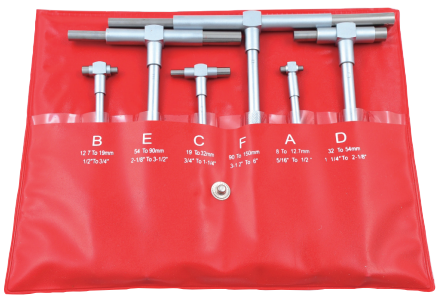
Long-Reach 6 pc Set

(Inch) Set Range	OAL Length
5/16~1/2	12"/300mm
1/2~3/4	12"/300mm
3/4~1-1/4	12"/300mm
1-1/4~2-1/8	12"/300mm
2-1/8~3-1/2	12"/300mm
3-1/2~6.0	12"/300mm

TELESCOPING GAGE SET

- Double action (self centering) for quick checking of inside measurements.
- Satin chrome finish.
- Vinyl pouch included.
- Constant spring tension for uniform feel.
- Contact point ends are hardened tool steel and precision ground on a radius of the smallest hole the gage will enter.

6 PC Set
5/16~6" Range
4200-0255



Range Up To 6" Reach

(Inch) Set Range	OAL Length
5/16~1/2	4.20
1/2~3/4	4.40
3/4~1-1/4	4.40
1-1/4~2-1/8	5.85
2-1/8~3-1/2	5.85
3-1/2~6.0	5.85

Pro-Series 6 PC TELESCOPING GAGE SET

- Double action (self centering) for quick checking of inside measurements.
- Smooth movement.
- Satin chrome finish.
- Constant spring tension for uniform feel.
- Contact point ends are hardened tool steel and precision ground on a radius of the smallest hole the gage will enter.
- Includes shop-hardened case.

6 PC Set
5/16~6" Range
4209-0255

Range Up To 6" Reach

(Inch) Set Range	OAL Length
5/16~1/2	4.20
1/2~3/4	4.40
3/4~1-1/4	4.40
1-1/4~2-1/8	5.85
2-1/8~3-1/2	5.85
3-1/2~6.0	5.85



Pro-Series 6 PC LONG-REACH TELESCOPING GAGE SET

- Double action (self centering) for quick checking of inside measurements.
- Smooth movement, rigid handle with self-centering feature.
- Satin chrome finish.
- Constant spring tension for uniform feel.
- Includes a fitted case.
- Contact point ends are hardened tool steel and precision ground on a radius of the smallest hole the gage will enter.

12" LONG REACH SET
6PC Set, 5/16~6" Range
4209-0266

Range Up To 6" Reach

(Inch) Set Range	OAL Length
5/16~1/2	12"/300mm
1/2~3/4	12"/300mm
3/4~1-1/4	12"/300mm
1-1/4~2-1/8	12"/300mm
2-1/8~3-1/2	12"/300mm
3-1/2~6.0	12"/300mm



Dasqua® TAPER BORE GAGES
-For Measuring Hole Diameter

- Made of polished stainless steel.
- Sizes engraved to last longer and read easily.

Overall Length: 7-1/2"



Mainly used to measure some deeper slots, holes and tube diameters.





Item#	Range	Graduation	Accuracy
1051-0005	1 - 6.5mm	0.1mm	±0.05
1051-0008	3 - 15mm	0.1mm	±0.05



Dasqua® CIRCULAR TAPER BORE GAGES
-For Measuring Small Holes

- Used to measure grooves and gaps or places that are hard to reach.
- Made of stainless steel
- Protective cap to cover the tip to avoid injuring the user.



Overall Length: 4.65"

Item#	Range	Graduation
1051-2010	0.1-5mm	0.1mm

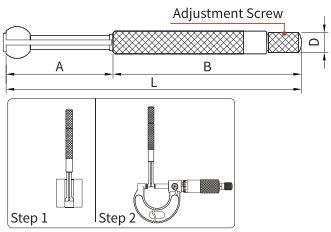
Dasqua® SMALL HOLE GAGE SET

- **Measuring Range:** .125"- .200"/ 3-5mm, .200"- .300"/ 5-7.5mm, .300"- .400"/ 7,5-10mm, .400"- .500"/ 10-13mm.
- Used with an outside micrometer for measuring inside diameter of bores.
- Gaging surface is fully hardened to ensure long tool life.
- Extra long for gaging deep and shallow holes, slots, and similar workpieces.
- Satin chrome finish - full ball.



4 PC SET
FULL BALL
5921-0005





SPECIFICATIONS

(mm)			
L	A	B	D
76	22	53	Ø5
78	24	53	Ø5
88	28	59	Ø6
92	32	59	Ø6

Dasqua® SMALL HOLE GAGE SET & TELESCOPING GAGE SET COMBO

6 PC STANDARD LENGTH TELESCOPING GAGE SET

- Durable action (self-centering) for quick checking of inside measurements.
- Satin chrome finish.
- Rigid handle with self-centering feature.
- Constant spring tension for uniform feel & smooth operation.
- Contact point ends are hardened tool steel and precision ground on a radius of the smallest hole the gage will enter.
- Includes fitted case.

Standard 6 PC Set

(Inch) Set Range	OAL LENGTH
5/16~1/2	4.20
1/2~3/4	4.40
3/4~1-1/4	4.40
1-1/4~2-1/8	5.85
2-1/8~3-1/2	5.85
3-1/2~6.0	5.85

4 PC SMALL HOLE GAGE SET

- Measuring Range: 3-5mm, 5-7.5mm, 7,5-10mm, 10-13mm.
- Used with an outside micrometer for measuring inside diameter of bores.
- Gaging surface is fully hardened to ensure long tool life.
- Extra long for gaging deep and shallow holes, slots, and similar workpieces.
- Satin chrome finish - full ball.

Standard 4 PC Set-Full Ball

Each Measuring Range
3-5mm / .125"- .200"
5-7.5mm / .200"- .300"
7.5-10mm / .300"- .400"
10-13mm / .400"- .500"

BUY COMBO & SAVE!



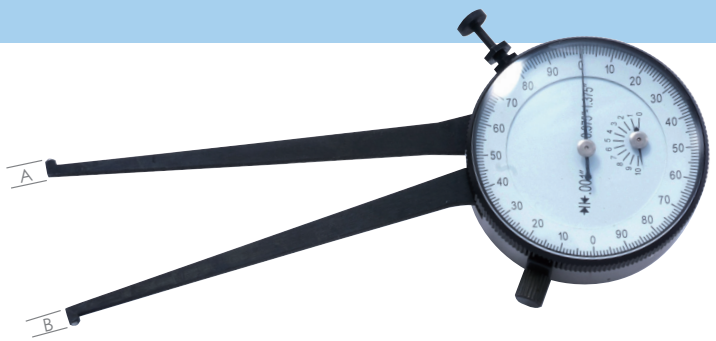


Combo Set
9999-0041
INCLUDES:
SMALL HOLE & TELESCOPING GAGE SETS

INTERNAL DIAL CALIPER GAGE

- 0~1" movement to check recessed diameters, internal bores, etc.
- Bezel can be rotated for zero setting and can be locked with screw.
- Set with micrometers or a ring gage.
- Carbide ball measuring points: 0.09" x 0.09"
- Button: push to close arms.
- Arm Length: 3.25"
- Arm Thickness: 0.09"

0.001" GRADUATION



Item#	Range	Graduation	A	B
4400-0801	0.375" ~1.375"	0.001"	5/32"	5/32"

Dasqua® 0.0005" GRADUATION DIAL BORE GAGE SETS

The Biggest Measuring Range Set In the Industry!
Two Popular Bore Gage Ranges Combined In One Set!

- Self centering.
- Carbide anvils.
- Easy-to-read.
- Insulated cover.
- Chrome plated handle.
- Includes extension holder and fitted case.

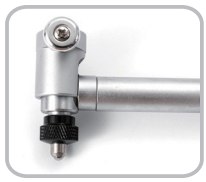
1.4~6" Range
5510-0000

0.0005" GRADUATION



5512-6130 Shown







Item#	Measuring Range	Depth Up to
5512-6105	0.24-0.4"	1.55"
5512-6110	0.4-0.7"	4"
5512-6115	0.7-1.5"	6"
5512-6120	1.4-2.4"	6"
5512-6125	2-4"	6"
5512-6130	2-6"	6"
5510-0000	1.4-6"	6"

0.0005" GRADUATION DIAL BORE GAGE SETS

- For close tolerance measurements of holes, taper and roundness.
- Gages are supplied with AGD Group II dial indicator.
- Easy setting with micrometers or ring gages.
- Fitted case with anvils index.
- Self centering.

2~6" Range
4400-0007



0.0005" GRADUATION DIAL INDICATOR

0~0.25" Range
0.0005" Graduation
Replacement Indicator
4400-1252



Flat Back

Item#	Range	Probe Depth	No. of Anvils
4400-0063*	0.7 -1.5"	6"	9
4400-0007	2.0 - 6.0"	6"	11

* Limited Supply

0~6" BORE GAGE SETTING MASTER

- Bore Gage Setting Master Kit is used for accurately setting any bore gage up to 6" inch.
- Each Set includes:

1- Setting Device
Base anvil: 2.750" x .80"
Adjustable anvil 2.375" x .375" (two each)
Baseanvil: 2.750"
Internal capacity: 6"
Depth capacity: 1"
Centralizer capacity width: 2.625"
Quick-release holder for fast adjustment

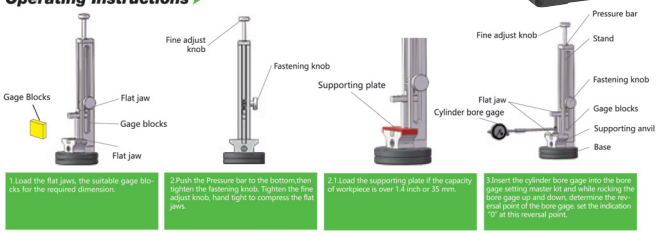
1- Economy Gage Block Set
36 piece
Tolerances to .00005"
Certificate of Calibration to N.I.S.T.
High quality wooden case



Limited Supply!

4400-0070

Operating Instructions



Pro-Series PRECISION STEEL PIN GAGE SETS WITH CERTIFICATION - Inch

- **Certified sets.**
- Supplied in a plastic, sturdy, dust-proof fitted case.
- Sizes marked on case for easy identification.
- Fully hardened to 62-64 RC.
- Finish to 10 Micron or better.
- Class ZZ
- OAL: 2" .

Item#	SET	Size
Accuraccy -0.0002" + 0.00000" (Minus)		
4101-0040	50 pc	0.011~0.060"
4101-0041	190 pc	0.061~0.250"
4101-0042	250 pc	0.251~0.500"
4101-0043	125 pc	0.501~0.625"
4101-0044	125 pc	0.626~0.750"
4101-0045	82 pc	0.751~0.832"
4101-0046	84 pc	0.833~0.916"
4101-0047	84 pc	0.917~1.000"

PIN GAGE HANDLE INCLUDED





Pro-Series PRECISION STEEL PIN GAGE SETS WITH CERTIFICATION - Metric

- **Certified sets**
- Supplied in a plastic, sturdy, dust-proof fitted case.
- Sizes marked on case for easy identification.
- Fully hardened to 62-64 RC.
- Finish to 10 Micron or better.
- Class ZZ
- OAL: 2" .

PIN GAGE HANDLE INCLUDED

* Limited Supply

Item#	Set	Size
Accuracy - 0.005mm + 0.000mm (Minus)		
4101-1010	55 pc	0.20~1.28mm
4101-1011	55 pc	0.21~1.29mm
4101-1012	185 pc	1.30~4.98mm
4101-1013	185 pc	1.31~4.99mm
4101-1014	250 pc	5.00~9.98mm
4101-1015	250 pc	5.01~9.99mm
4101-1016	200 pc	10.00~13.98mm
4101-1017*	200 pc	10.01~13.99mm

PIN GAGE HANDLES

- Comfortable, ergonomically made handle for pin gages.
- Made from powder coated aluminum.
- Can be used with GO pin (green) on one end, NO GO pin (red) on opposite end.



Item#	For Pin Gage
4102-0001	.011 ~ .060"
4102-0002	.061 ~ .250"
4102-0003	.251 ~ .500"
4102-0006	.751 ~ .832"
4102-0007	.833 ~ .916"

Pro-Series PLUG GAGE HANDLES & SET

- SPI style.
- Superior finish and smooth operation.
- Holds pin gage with greatest gripping power.
- Can be used with GO pin (green) and NO GO pin (red).
- Comfortable and ergonomically designed handle for pin gages.
- No bushings required.

3 PC SET
0.011~0.500"
4102-0018





Item #	(inch) Pin Gage Range Min.	Max.
4102-0011	0.011	0.060
4102-0012	0.061	0.250
4102-0013	0.251	0.500
4102-0014	0.501	0.625
4102-0015	0.626	0.750

Pro-Series PIN GAGE HANDLE 1/32-1/2"

- For pin gage sizes: 1/32~1/2"
- Casting aluminum
- Go and No-Go clearly marked
- Large capacity.

4102-0020



PIN GAGE HANDLE 1/32-1/2"

- For pin gage sizes: 1/32~1/2"
- Go and No-Go clearly marked
- Large capacity.
- Casting aluminum

4106-0020



PRECISION STEEL PIN GAGE SETS - Inch

- Supplied in a plastic, sturdy, dust-proof fitted case.
- Sizes marked on case for easy identification.
- Fully hardened to 60-62 RC.
- Finish to 10 Micron or better.
- Class ZZ
- OAL: 2" .

Minus Set
.061~.250" Range
4101-0011



Size	SET	Item#
MINUS SETS (-) -0.0002" + 0.0000"		
0.011~0.060"	50 pc	4101-0010
0.061~0.250"	190 pc	4101-0011
0.251~0.500"	250 pc	4101-0012
0.501~0.625"	125 pc	4101-0013
0.626~0.750"	125 pc	4101-0014
0.751~0.832"	82 pc	4101-0015
0.833~0.916"	84 pc	4101-0016
0.917~1.000"	84 pc	4101-0017
PLUS SETS (+) -0.0000" + 0.0002"		
0.061~0.250"	190 pc	4101-0111
0.251~0.500"	250 pc	4101-0112

PRECISION PIN GAGE COMBO SETS - Inch

- Supplied in a plastic, sturdy, dust-proof fitted case.
- Sizes marked on case for easy identification.
- Fully hardened to 60-62 RC.
- Finish to 10 Micron or better.
- Class ZZ
- OAL: 2" .

BUY A COMBO & SAVE

Accuraccy
-0.0002"/+ 0.00000"
(Minus)



+



440 PC COMBO SET
(2 CASES)
0.061~ 0.500" Range
4101-0050

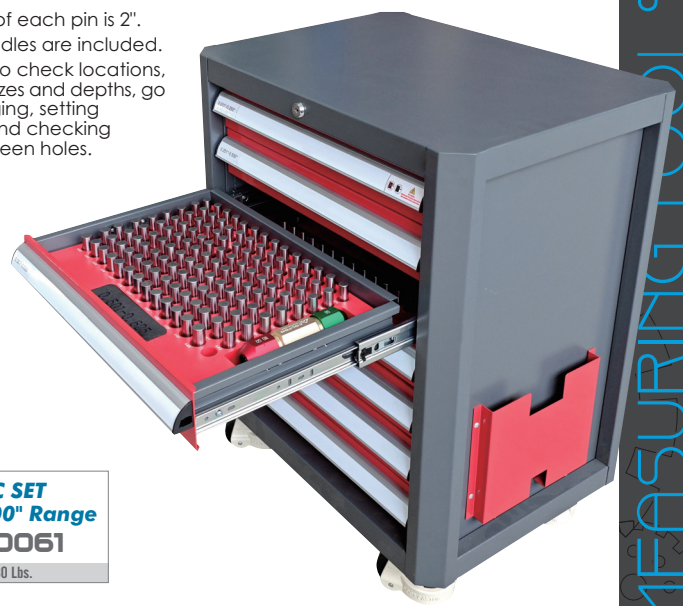


490 PC COMBO SET
(3 CASES)
0.011~0.500" Range
9999-0070

PRECISION STEEL PIN GAGE 990 PC LIBRARY SET (0.011-1.000") WITH CUSTOM DRAWER SYSTEM

- High Precision Steel 990 Piece Pin Gage Library (Minus-) .011-1.000"
- Custom metal drawer system included.
- .001" set increments with sizes marked on each pin gage.
- Made of tool steel hardened to HRC60-62.
- Finish to 10 micro or better.
- Class ZZ.
- Overall length of each pin is 2".
- 8 pin gage handles are included.
- Use these pins to check locations, measure hole sizes and depths, go and no-go gaging, setting micrometers, and checking distances between holes.

Accuracy -0.0002"/+0.0000"



TRUCK SHIP ONLY

990 PC SET
0.011~1.000" Range
4101-0061
Weight. 330 Lbs.

PIN GAGE SET REPLACEMENT CASES

- Plastic, sturdy, dust-proof case.
- Sizes marked on case for easy identification.
- Good for minus and plus pin gage sets.
- For pin gage overall length 2".



Pin Gages Not Included



50 PC Replacement Case
0.011~0.060" Range
4101-0010CASE



190 PC Replacement Case
0.061~0.250" Range
4101-0011CASE



250 PC Replacement Case
0.251~0.500" Range
4101-0012CASE

INDIVIDUAL CLASS ZZ PIN GAGES



- Replace missing, damaged, or worn-out Class ZZ gages from existing sets and libraries.
- Each pin is individually marked with size.
- Fully hardened to 60-62 RC.
- Finish to 10 Micron or better.
- Overall Length: 2"
- Tolerance: Minus .0002"

Item#	Size	Item#	Size	Item#	Size	Item#	Size	Item#	Size	Item#	Size
4103-0011	0.011	**4103-0094**	0.094	**4103-0177**	0.177	**4103-0260**	0.260	**4103-0343**	0.343	**4103-0426**	0.426
4103-0012	0.012	**4103-0095**	0.095	**4103-0178**	0.178	**4103-0261**	0.261	**4103-0344**	0.344	**4103-0427**	0.427
4103-0013	0.013	**4103-0096**	0.096	**4103-0179**	0.179	**4103-0262**	0.262	**4103-0345**	0.345	**4103-0428**	0.428
4103-0014	0.014	**4103-0097**	0.097	**4103-0180**	0.180	**4103-0263**	0.263	**4103-0346**	0.346	**4103-0429**	0.429
4103-0015	0.015	**4103-0098**	0.098	**4103-0181**	0.181	**4103-0264**	0.264	**4103-0347**	0.347	**4103-0430**	0.430
4103-0016	0.016	**4103-0099**	0.099	**4103-0182**	0.182	**4103-0265**	0.265	**4103-0348**	0.348	**4103-0431**	0.431
4103-0017	0.017	**4103-0100**	0.100	**4103-0183**	0.183	**4103-0266**	0.266	**4103-0349**	0.349	**4103-0432**	0.432
4103-0018	0.018	**4103-0101**	0.101	**4103-0184**	0.184	**4103-0267**	0.267	**4103-0350**	0.350	**4103-0433**	0.433
4103-0019	0.019	**4103-0102**	0.102	**4103-0185**	0.185	**4103-0268**	0.268	**4103-0351**	0.351	**4103-0434**	0.434
4103-0020	0.020	**4103-0103**	0.103	**4103-0186**	0.186	**4103-0269**	0.269	**4103-0352**	0.352	**4103-0435**	0.435
4103-0021	0.021	**4103-0104**	0.104	**4103-0187**	0.187	**4103-0270**	0.270	**4103-0353**	0.353	**4103-0436**	0.436
4103-0022	0.022	**4103-0105**	0.105	**4103-0188**	0.188	**4103-0271**	0.271	**4103-0354**	0.354	**4103-0437**	0.437
4103-0023	0.023	**4103-0106**	0.106	**4103-0189**	0.189	**4103-0272**	0.272	**4103-0355**	0.355	**4103-0438**	0.438
4103-0024	0.024	**4103-0107**	0.107	**4103-0190**	0.190	**4103-0273**	0.273	**4103-0356**	0.356	**4103-0439**	0.439
4103-0025	0.025	**4103-0108**	0.108	**4103-0191**	0.191	**4103-0274**	0.274	**4103-0357**	0.357	**4103-0440**	0.440
4103-0026	0.026	**4103-0109**	0.109	**4103-0192**	0.192	**4103-0275**	0.275	**4103-0358**	0.358	**4103-0441**	0.441
4103-0027	0.027	**4103-0110**	0.110	**4103-0193**	0.193	**4103-0276**	0.276	**4103-0359**	0.359	**4103-0442**	0.442
4103-0028	0.028	**4103-0111**	0.111	**4103-0194**	0.194	**4103-0277**	0.277	**4103-0360**	0.360	**4103-0443**	0.443
4103-0029	0.029	**4103-0112**	0.112	**4103-0195**	0.195	**4103-0278**	0.278	**4103-0361**	0.361	**4103-0444**	0.444
4103-0030	0.030	**4103-0113**	0.113	**4103-0196**	0.196	**4103-0279**	0.279	**4103-0362**	0.362	**4103-0445**	0.445
4103-0031	0.031	**4103-0114**	0.114	**4103-0197**	0.197	**4103-0280**	0.280	**4103-0363**	0.363	**4103-0446**	0.446
4103-0032	0.032	**4103-0115**	0.115	**4103-0198**	0.198	**4103-0281**	0.281	**4103-0364**	0.364	**4103-0447**	0.447
4103-0033	0.033	**4103-0116**	0.116	**4103-0199**	0.199	**4103-0282**	0.282	**4103-0365**	0.365	**4103-0448**	0.448
4103-0034	0.034	**4103-0117**	0.117	**4103-0200**	0.200	**4103-0283**	0.283	**4103-0366**	0.366	**4103-0449**	0.449
4103-0035	0.035	**4103-0118**	0.118	**4103-0201**	0.201	**4103-0284**	0.284	**4103-0367**	0.367	**4103-0450**	0.450
4103-0036	0.036	**4103-0119**	0.119	**4103-0202**	0.202	**4103-0285**	0.285	**4103-0368**	0.368	**4103-0451**	0.451
4103-0037	0.037	**4103-0120**	0.120	**4103-0203**	0.203	**4103-0286**	0.286	**4103-0369**	0.369	**4103-0452**	0.452
4103-0038	0.038	**4103-0121**	0.121	**4103-0204**	0.204	**4103-0287**	0.287	**4103-0370**	0.370	**4103-0453**	0.453
4103-0039	0.039	**4103-0122**	0.122	**4103-0205**	0.205	**4103-0288**	0.288	**4103-0371**	0.371	**4103-0454**	0.454
4103-0040	0.040	**4103-0123**	0.123	**4103-0206**	0.206	**4103-0289**	0.289	**4103-0372**	0.372	**4103-0455**	0.455
4103-0041	0.041	**4103-0124**	0.124	**4103-0207**	0.207	**4103-0290**	0.290	**4103-0373**	0.373	**4103-0456**	0.456
4103-0042	0.042	**4103-0125**	0.125	**4103-0208**	0.208	**4103-0291**	0.291	**4103-0374**	0.374	**4103-0457**	0.457
4103-0043	0.043	**4103-0126**	0.126	**4103-0209**	0.209	**4103-0292**	0.292	**4103-0375**	0.375	**4103-0458**	0.458
4103-0044	0.044	**4103-0127**	0.127	**4103-0210**	0.210	**4103-0293**	0.293	**4103-0376**	0.376	**4103-0459**	0.459
4103-0045	0.045	**4103-0128**	0.128	**4103-0211**	0.211	**4103-0294**	0.294	**4103-0377**	0.377	**4103-0460**	0.460
4103-0046	0.046	**4103-0129**	0.129	**4103-0212**	0.212	**4103-0295**	0.295	**4103-0378**	0.378	**4103-0461**	0.461
4103-0047	0.047	**4103-0130**	0.130	**4103-0213**	0.213	**4103-0296**	0.296	**4103-0379**	0.379	**4103-0462**	0.462
4103-0048	0.048	**4103-0131**	0.131	**4103-0214**	0.214	**4103-0297**	0.297	**4103-0380**	0.380	**4103-0463**	0.463
4103-0049	0.049	**4103-0132**	0.132	**4103-0215**	0.215	**4103-0298**	0.298	**4103-0381**	0.381	**4103-0464**	0.464
4103-0050	0.050	**4103-0133**	0.133	**4103-0216**	0.216	**4103-0299**	0.299	**4103-0382**	0.382	**4103-0465**	0.465
4103-0051	0.051	**4103-0134**	0.134	**4103-0217**	0.217	**4103-0300**	0.300	**4103-0383**	0.383	**4103-0466**	0.466
4103-0052	0.052	**4103-0135**	0.135	**4103-0218**	0.218	**4103-0301**	0.301	**4103-0384**	0.384	**4103-0467**	0.467
4103-0053	0.053	**4103-0136**	0.136	**4103-0219**	0.219	**4103-0302**	0.302	**4103-0385**	0.385	**4103-0468**	0.468
4103-0054	0.054	**4103-0137**	0.137	**4103-0220**	0.220	**4103-0303**	0.303	**4103-0386**	0.386	**4103-0469**	0.469
4103-0055	0.055	**4103-0138**	0.138	**4103-0221**	0.221	**4103-0304**	0.304	**4103-0387**	0.387	**4103-0470**	0.470
4103-0056	0.056	**4103-0139**	0.139	**4103-0222**	0.222	**4103-0305**	0.305	**4103-0388**	0.388	**4103-0471**	0.471
4103-0057	0.057	**4103-0140**	0.140	**4103-0223**	0.223	**4103-0306**	0.306	**4103-0389**	0.389	**4103-0472**	0.472
4103-0058	0.058	**4103-0141**	0.141	**4103-0224**	0.224	**4103-0307**	0.307	**4103-0390**	0.390	**4103-0473**	0.473
4103-0059	0.059	**4103-0142**	0.142	**4103-0225**	0.225	**4103-0308**	0.308	**4103-0391**	0.391	**4103-0474**	0.474
4103-0060	0.060	**4103-0143**	0.143	**4103-0226**	0.226	**4103-0309**	0.309	**4103-0392**	0.392	**4103-0475**	0.475
4103-0061	0.061	**4103-0144**	0.144	**4103-0227**	0.227	**4103-0310**	0.310	**4103-0393**	0.393	**4103-0476**	0.476
4103-0062	0.062	**4103-0145**	0.145	**4103-0228**	0.228	**4103-0311**	0.311	**4103-0394**	0.394	**4103-0477**	0.477
4103-0063	0.063	**4103-0146**	0.146	**4103-0229**	0.229	**4103-0312**	0.312	**4103-0395**	0.395	**4103-0478**	0.478
4103-0064	0.064	**4103-0147**	0.147	**4103-0230**	0.230	**4103-0313**	0.313	**4103-0396**	0.396	**4103-0479**	0.479
4103-0065	0.065	**4103-0148**	0.148	**4103-0231**	0.231	**4103-0314**	0.314	**4103-0397**	0.397	**4103-0480**	0.480
4103-0066	0.066	**4103-0149**	0.149	**4103-0232**	0.232	**4103-0315**	0.315	**4103-0398**	0.398	**4103-0481**	0.481
4103-0067	0.067	**4103-0150**	0.150	**4103-0233**	0.233	**4103-0316**	0.316	**4103-0399**	0.399	**4103-0482**	0.482
4103-0068	0.068	**4103-0151**	0.151	**4103-0234**	0.234	**4103-0317**	0.317	**4103-0400**	0.400	**4103-0483**	0.483
4103-0069	0.069	**4103-0152**	0.152	**4103-0235**	0.235	**4103-0318**	0.318	**4103-0401**	0.401	**4103-0484**	0.484
4103-0070	0.070	**4103-0153**	0.153	**4103-0236**	0.236	**4103-0319**	0.319	**4103-0402**	0.402	**4103-0485**	0.485
4103-0071	0.071	**4103-0154**	0.154	**4103-0237**	0.237	**4103-0320**	0.320	**4103-0403**	0.403	**4103-0486**	0.486
4103-0072	0.072	**4103-0155**	0.155	**4103-0238**	0.238	**4103-0321**	0.321	**4103-0404**	0.404	**4103-0487**	0.487
4103-0073	0.073	**4103-0156**	0.156	**4103-0239**	0.239	**4103-0322**	0.322	**4103-0405**	0.405	**4103-0488**	0.488
4103-0074	0.074	**4103-0157**	0.157	**4103-0240**	0.240	**4103-0323**	0.323	**4103-0406**	0.406	**4103-0489**	0.489
4103-0075	0.075	**4103-0158**	0.158	**4103-0241**	0.241	**4103-0324**	0.324	**4103-0407**	0.407	**4103-0490**	0.490
4103-0076	0.076	**4103-0159**	0.159	**4103-0242**	0.242	**4103-0325**	0.325	**4103-0408**	0.408	**4103-0491**	0.491
4103-0077	0.077	**4103-0160**	0.160	**4103-0243**	0.243	**4103-0326**	0.326	**4103-0409**	0.409	**4103-0492**	0.492
4103-0078	0.078	**4103-0161**	0.161	**4103-0244**	0.244	**4103-0327**	0.327	**4103-0410**	0.410	**4103-0493**	0.493
4103-0079	0.079	**4103-0162**	0.162	**4103-0245**	0.245	**4103-0328**	0.328	**4103-0411**	0.411	**4103-0494**	0.494
4103-0080	0.080	**4103-0163**	0.163	**4103-0246**	0.246	**4103-0329**	0.329	**4103-0412**	0.412	**4103-0495**	0.495
4103-0081	0.081	**4103-0164**	0.164	**4103-0247**	0.247	**4103-0330**	0.330	**4103-0413**	0.413	**4103-0496**	0.496
4103-0082	0.082	**4103-0165**	0.165	**4103-0248**	0.248	**4103-0331**	0.331	**4103-0414**	0.414	**4103-0497**	0.497
4103-0083	0.083	**4103-0166**	0.166	**4103-0249**	0.249	**4103-0332**	0.332	**4103-0415**	0.415	**4103-0498**	0.498
4103-0084	0.084	**4103-0167**	0.167	**4103-0250**	0.250	**4103-0333**	0.333	**4103-0416**	0.416	**4103-0499**	0.499
4103-0085	0.085	**4103-0168**	0.168	**4103-0251**	0.251	**4103-0334**	0.334	**4103-0417**	0.417	**4103-0500**	0.500
4103-0086	0.086	**4103-0169**	0.169	**4103-0252**	0.252	**4103-0335**	0.335	**4103-0418**	0.418	**4103-0501**	0.501
4103-0087	0.087	**4103-0170**	0.170	**4103-0253**	0.253	**4103-0336**	0.336	**4103-0419**	0.419	**4103-0502**	0.502
4103-0088	0.088	**4103-0171**	0.171	**4103-0254**	0.254	**4103-0337**	0.337	**4103-0420**	0.420	**4103-0503**	0.503
4103-0089	0.089	**4103-0172**	0.172	**4103-0255**	0.255	**4103-0338**	0.338	**4103-0421**	0.421	**4103-0504**	0.504
4103-0090	0.090	**4103-0173**	0.173	**4103-0256**	0.256	**4103-0339**	0.339	**4103-0422**	0.422	**4103-0505**	0.505
4103-0091	0.091	**4103-0174**	0.174	**4103-0257**	0.257	**4103-0340**	0.340	**4103-0423**	0.423	**4103-0506**	0.506
4103-0092	0.092	**4103-0175**	0.175	**4103-0258**	0.258	**4103-0341**	0.341	**4103-0424**	0.424	**4103-0507**	0.507
4103-0093	0.093	**4103-0176**	0.176	**4103-0259**	0.259	**4103-0342**	0.342	**4103-0425**	0.425	**4103-0508**	0.508

INDIVIDUAL CLASS ZZ PIN GAGES



- Replace missing, damaged, or worn-out Class ZZ gages from existing sets and libraries.
- Each pin is individually marked with size.
- Fully hardened to 60-62 RC.
- Finish to 10 Micron or better.
- Overall Length: 2"
- Tolerance: Minus .0002"

Item#	Size	Item#	Size	Item#	Size	Item#	Size	Item#	Size	Item#	Size
4103-0509	0.509	**4103-0592**	0.592	**4103-0675**	0.675	**4103-0758**	0.758	**4103-0841**	0.841	**4103-0924**	0.924
4103-0510	0.510	**4103-0593**	0.593	**4103-0676**	0.676	**4103-0759**	0.759	**4103-0842**	0.842	**4103-0925**	0.925
4103-0511	0.511	**4103-0594**	0.594	**4103-0677**	0.677	**4103-0760**	0.760	**4103-0843**	0.843	**4103-0926**	0.926
4103-0512	0.512	**4103-0595**	0.595	**4103-0678**	0.678	**4103-0761**	0.761	**4103-0844**	0.844	**4103-0927**	0.927
4103-0513	0.513	**4103-0596**	0.596	**4103-0679**	0.679	**4103-0762**	0.762	**4103-0845**	0.845	**4103-0928**	0.928
4103-0514	0.514	**4103-0597**	0.597	**4103-0680**	0.680	**4103-0763**	0.763	**4103-0846**	0.846	**4103-0929**	0.929
4103-0515	0.515	**4103-0598**	0.598	**4103-0681**	0.681	**4103-0764**	0.764	**4103-0847**	0.847	**4103-0930**	0.930
4103-0516	0.516	**4103-0599**	0.599	**4103-0682**	0.682	**4103-0765**	0.765	**4103-0848**	0.848	**4103-0931**	0.931
4103-0517	0.517	**4103-0600**	0.600	**4103-0683**	0.683	**4103-0766**	0.766	**4103-0849**	0.849	**4103-0932**	0.932
4103-0518	0.518	**4103-0601**	0.601	**4103-0684**	0.684	**4103-0767**	0.767	**4103-0850**	0.850	**4103-0933**	0.933
4103-0519	0.519	**4103-0602**	0.602	**4103-0685**	0.685	**4103-0768**	0.768	**4103-0851**	0.851	**4103-0934**	0.934
4103-0520	0.520	**4103-0603**	0.603	**4103-0686**	0.686	**4103-0769**	0.769	**4103-0852**	0.852	**4103-0935**	0.935
4103-0521	0.521	**4103-0604**	0.604	**4103-0687**	0.687	**4103-0770**	0.770	**4103-0853**	0.853	**4103-0936**	0.936
4103-0522	0.522	**4103-0605**	0.605	**4103-0688**	0.688	**4103-0771**	0.771	**4103-0854**	0.854	**4103-0937**	0.937
4103-0523	0.523	**4103-0606**	0.606	**4103-0689**	0.689	**4103-0772**	0.772	**4103-0855**	0.855	**4103-0938**	0.938
4103-0524	0.524	**4103-0607**	0.607	**4103-0690**	0.690	**4103-0773**	0.773	**4103-0856**	0.856	**4103-0939**	0.939
4103-0525	0.525	**4103-0608**	0.608	**4103-0691**	0.691	**4103-0774**	0.774	**4103-0857**	0.857	**4103-0940**	0.940
4103-0526	0.526	**4103-0609**	0.609	**4103-0692**	0.692	**4103-0775**	0.775	**4103-0858**	0.858	**4103-0941**	0.941
4103-0527	0.527	**4103-0610**	0.610	**4103-0693**	0.693	**4103-0776**	0.776	**4103-0859**	0.859	**4103-0942**	0.942
4103-0528	0.528	**4103-0611**	0.611	**4103-0694**	0.694	**4103-0777**	0.777	**4103-0860**	0.860	**4103-0943**	0.943
4103-0529	0.529	**4103-0612**	0.612	**4103-0695**	0.695	**4103-0778**	0.778	**4103-0861**	0.861	**4103-0944**	0.944
4103-0530	0.530	**4103-0613**	0.613	**4103-0696**	0.696	**4103-0779**	0.779	**4103-0862**	0.862	**4103-0945**	0.945
4103-0531	0.531	**4103-0614**	0.614	**4103-0697**	0.697	**4103-0780**	0.780	**4103-0863**	0.863	**4103-0946**	0.946
4103-0532	0.532	**4103-0615**	0.615	**4103-0698**	0.698	**4103-0781**	0.781	**4103-0864**	0.864	**4103-0947**	0.947
4103-0533	0.533	**4103-0616**	0.616	**4103-0699**	0.699	**4103-0782**	0.782	**4103-0865**	0.865	**4103-0948**	0.948
4103-0534	0.534	**4103-0617**	0.617	**4103-0700**	0.700	**4103-0783**	0.783	**4103-0866**	0.866	**4103-0949**	0.949
4103-0535	0.535	**4103-0618**	0.618	**4103-0701**	0.701	**4103-0784**	0.784	**4103-0867**	0.867	**4103-0950**	0.950
4103-0536	0.536	**4103-0619**	0.619	**4103-0702**	0.702	**4103-0785**	0.785	**4103-0868**	0.868	**4103-0951**	0.951
4103-0537	0.537	**4103-0620**	0.620	**4103-0703**	0.703	**4103-0786**	0.786	**4103-0869**	0.869	**4103-0952**	0.952
4103-0538	0.538	**4103-0621**	0.621	**4103-0704**	0.704	**4103-0787**	0.787	**4103-0870**	0.870	**4103-0953**	0.953
4103-0539	0.539	**4103-0622**	0.622	**4103-0705**	0.705	**4103-0788**	0.788	**4103-0871**	0.871	**4103-0954**	0.954
4103-0540	0.540	**4103-0623**	0.623	**4103-0706**	0.706	**4103-0789**	0.789	**4103-0872**	0.872	**4103-0955**	0.955
4103-0541	0.541	**4103-0624**	0.624	**4103-0707**	0.707	**4103-0790**	0.790	**4103-0873**	0.873	**4103-0956**	0.956
4103-0542	0.542	**4103-0625**	0.625	**4103-0708**	0.708	**4103-0791**	0.791	**4103-0874**	0.874	**4103-0957**	0.957
4103-0543	0.543	**4103-0626**	0.626	**4103-0709**	0.709	**4103-0792**	0.792	**4103-0875**	0.875	**4103-0958**	0.958
4103-0544	0.544	**4103-0627**	0.627	**4103-0710**	0.710	**4103-0793**	0.793	**4103-0876**	0.876	**4103-0959**	0.959
4103-0545	0.545	**4103-0628**	0.628	**4103-0711**	0.711	**4103-0794**	0.794	**4103-0877**	0.877	**4103-0960**	0.960
4103-0546	0.546	**4103-0629**	0.629	**4103-0712**	0.712	**4103-0795**	0.795	**4103-0878**	0.878	**4103-0961**	0.961
4103-0547	0.547	**4103-0630**	0.630	**4103-0713**	0.713	**4103-0796**	0.796	**4103-0879**	0.879	**4103-0962**	0.962
4103-0548	0.548	**4103-0631**	0.631	**4103-0714**	0.714	**4103-0797**	0.797	**4103-0880**	0.880	**4103-0963**	0.963
4103-0549	0.549	**4103-0632**	0.632	**4103-0715**	0.715	**4103-0798**	0.798	**4103-0881**	0.881	**4103-0964**	0.964
4103-0550	0.550	**4103-0633**	0.633	**4103-0716**	0.716	**4103-0799**	0.799	**4103-0882**	0.882	**4103-0965**	0.965
4103-0551	0.551	**4103-0634**	0.634	**4103-0717**	0.717	**4103-0800**	0.800	**4103-0883**	0.883	**4103-0966**	0.966
4103-0552	0.552	**4103-0635**	0.635	**4103-0718**	0.718	**4103-0801**	0.801	**4103-0884**	0.884	**4103-0967**	0.967
4103-0553	0.553	**4103-0636**	0.636	**4103-0719**	0.719	**4103-0802**	0.802	**4103-0885**	0.885	**4103-0968**	0.968
4103-0554	0.554	**4103-0637**	0.637	**4103-0720**	0.720	**4103-0803**	0.803	**4103-0886**	0.886	**4103-0969**	0.969
4103-0555	0.555	**4103-0638**	0.638	**4103-0721**	0.721	**4103-0804**	0.804	**4103-0887**	0.887	**4103-0970**	0.970
4103-0556	0.556	**4103-0639**	0.639	**4103-0722**	0.722	**4103-0805**	0.805	**4103-0888**	0.888	**4103-0971**	0.971
4103-0557	0.557	**4103-0640**	0.640	**4103-0723**	0.723	**4103-0806**	0.806	**4103-0889**	0.889	**4103-0972**	0.972
4103-0558	0.558	**4103-0641**	0.641	**4103-0724**	0.724	**4103-0807**	0.807	**4103-0890**	0.890	**4103-0973**	0.973
4103-0559	0.559	**4103-0642**	0.642	**4103-0725**	0.725	**4103-0808**	0.808	**4103-0891**	0.891	**4103-0974**	0.974
4103-0560	0.560	**4103-0643**	0.643	**4103-0726**	0.726	**4103-0809**	0.809	**4103-0892**	0.892	**4103-0975**	0.975
4103-0561	0.561	**4103-0644**	0.644	**4103-0727**	0.727	**4103-0810**	0.810	**4103-0893**	0.893	**4103-0976**	0.976
4103-0562	0.562	**4103-0645**	0.645	**4103-0728**	0.728	**4103-0811**	0.811	**4103-0894**	0.894	**4103-0977**	0.977
4103-0563	0.563	**4103-0646**	0.646	**4103-0729**	0.729	**4103-0812**	0.812	**4103-0895**	0.895	**4103-0978**	0.978
4103-0564	0.564	**4103-0647**	0.647	**4103-0730**	0.730	**4103-0813**	0.813	**4103-0896**	0.896	**4103-0979**	0.979
4103-0565	0.565	**4103-0648**	0.648	**4103-0731**	0.731	**4103-0814**	0.814	**4103-0897**	0.897	**4103-0980**	0.980
4103-0566	0.566	**4103-0649**	0.649	**4103-0732**	0.732	**4103-0815**	0.815	**4103-0898**	0.898	**4103-0981**	0.981
4103-0567	0.567	**4103-0650**	0.650	**4103-0733**	0.733	**4103-0816**	0.816	**4103-0899**	0.899	**4103-0982**	0.982
4103-0568	0.568	**4103-0651**	0.651	**4103-0734**	0.734	**4103-0817**	0.817	**4103-0900**	0.900	**4103-0983**	0.983
4103-0569	0.569	**4103-0652**	0.652	**4103-0735**	0.735	**4103-0818**	0.818	**4103-0901**	0.901	**4103-0984**	0.984
4103-0570	0.570	**4103-0653**	0.653	**4103-0736**	0.736	**4103-0819**	0.819	**4103-0902**	0.902	**4103-0985**	0.985
4103-0571	0.571	**4103-0654**	0.654	**4103-0737**	0.737	**4103-0820**	0.820	**4103-0903**	0.903	**4103-0986**	0.986
4103-0572	0.572	**4103-0655**	0.655	**4103-0738**	0.738	**4103-0821**	0.821	**4103-0904**	0.904	**4103-0987**	0.987
4103-0573	0.573	**4103-0656**	0.656	**4103-0739**	0.739	**4103-0822**	0.822	**4103-0905**	0.905	**4103-0988**	0.988
4103-0574	0.574	**4103-0657**	0.657	**4103-0740**	0.740	**4103-0823**	0.823	**4103-0906**	0.906	**4103-0989**	0.989
4103-0575	0.575	**4103-0658**	0.658	**4103-0741**	0.741	**4103-0824**	0.824	**4103-0907**	0.907	**4103-0990**	0.990
4103-0576	0.576	**4103-0659**	0.659	**4103-0742**	0.742	**4103-0825**	0.825	**4103-0908**	0.908	**4103-0991**	0.991
4103-0577	0.577	**4103-0660**	0.660	**4103-0743**	0.743	**4103-0826**	0.826	**4103-0909**	0.909	**4103-0992**	0.992
4103-0578	0.578	**4103-0661**	0.661	**4103-0744**	0.744	**4103-0827**	0.827	**4103-0910**	0.910	**4103-0993**	0.993
4103-0579	0.579	**4103-0662**	0.662	**4103-0745**	0.745	**4103-0828**	0.828	**4103-0911**	0.911	**4103-0994**	0.994
4103-0580	0.580	**4103-0663**	0.663	**4103-0746**	0.746	**4103-0829**	0.829	**4103-0912**	0.912	**4103-0995**	0.995
4103-0581	0.581	**4103-0664**	0.664	**4103-0747**	0.747	**4103-0830**	0.830	**4103-0913**	0.913	**4103-0996**	0.996
4103-0582	0.582	**4103-0665**	0.665	**4103-0748**	0.748	**4103-0831**	0.831	**4103-0914**	0.914	**4103-0997**	0.997
4103-0583	0.583	**4103-0666**	0.666	**4103-0749**	0.749	**4103-0832**	0.832	**4103-0915**	0.915	**4103-0998**	0.998
4103-0584	0.584	**4103-0667**	0.667	**4103-0750**	0.750	**4103-0833**	0.833	**4103-0916**	0.916	**4103-0999**	0.999
4103-0585	0.585	**4103-0668**	0.668	**4103-0751**	0.751	**4103-0834**	0.834	**4103-0917**	0.917	**4103-1000**	1.000
4103-0586	0.586	**4103-0669**	0.669	**4103-0752**	0.752	**4103-0835**	0.835	**4103-0918**	0.918		
4103-0587	0.587	**4103-0670**	0.670	**4103-0753**	0.753	**4103-0836**	0.836	**4103-0919**	0.919		
4103-0588	0.588	**4103-0671**	0.671	**4103-0754**	0.754	**4103-0837**	0.837	**4103-0920**	0.920		
4103-0589	0.589	**4103-0672**	0.672	**4103-0755**	0.755	**4103-0838**	0.838	**4103-0921**	0.921		
4103-0590	0.590	**4103-0673**	0.673	**4103-0756**	0.756	**4103-0839**	0.839	**4103-0922**	0.922		
4103-0591	0.591	**4103-0674**	0.674	**4103-0757**	0.757	**4103-0840**	0.840	**4103-0923**	0.923		

MAGNETIC BASES

Pro-Series MAGNETIC BASE

- Overall height: 9" .
- Off and On switch.
- Scribe-opening: 5/32" .
- Power Pull: 130 lbs.
- Base size: 2"(Width) x 2-1/2"(Depth).
- Holds most AGD dial and test indicators.
- V-shape on bottom surface for firm holding.



HHIP PRO-SERIES

Standard
4401-1100

Pro-Series MAGNETIC BASE WITH FINE ADJUSTMENT

- Overall height: 9" .
- Off and On switch.
- Scribe-opening: 5/32" .
- Power Pull: 130 lbs.
- Base size : 2" (Width) x 2-1/2" (Depth).
- Holds most AGD dial and test indicators.
- V-shape on bottom surface for firm holding.

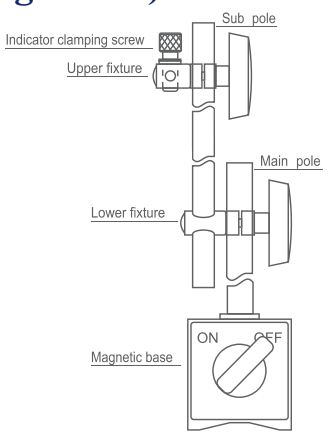
HHIP PRO-SERIES

With Fine Adjustment
4401-0001



Dasqua® SUPER STRONG (80kg/176lb.) MAGNETIC BASE

- Solid structure with electroplated surfaces, precision ground end-faces
- With clamp holes of 4mm, 8mm & 3/8", which satisfy the use of most indicators, test indicators and scribers.
- 150° V-grooved base can be placed on the cylindrical surfaces for easily fixing the indicators
- Well selected ferrite permanent magnet with magnetic force greater than calibration value
- On/off switch for magnet, easy to move the base without the influence of magnetic force



Standard
7700-0010



SPECIFICATIONS:

Holding Power	(mm)				Weight
	Base	Main Pole	Sub Pole	Dia. of Clamp Hold	
80kg	60x50x55	Ø12x177	Ø10x165	Ø6mm / Ø8mm / Ø3/8"	1.6kg

Dasqua® MAGNETIC BASE WITH FINE ADJUSTMENT

- Highest quality craftmanship.
- V-grooved base for easy and secure mount on cylindrical parts.
- Chrome plated rods.
- Horizontal or vertical posistioning capability.
- Blue wrinkled finish on non-working surfaces.
- Fine quality permanent magnet.
- Smooth and easy on/off switch.

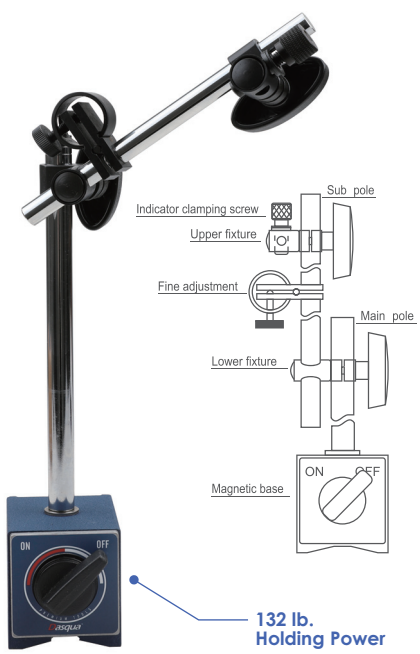
4mm, 8mm, 3/8"

With Fine Adjustment
7123-1004









SPECIFICATIONS:

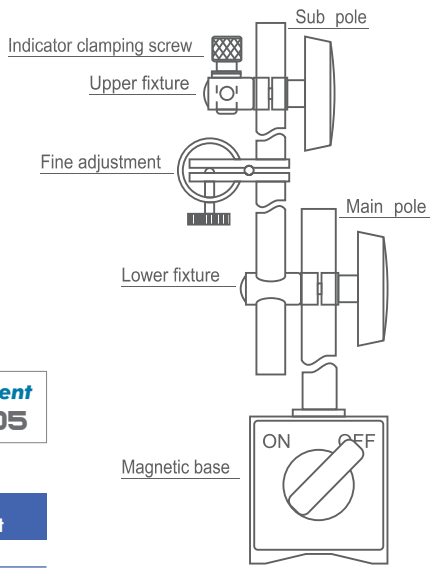
Holding Power	Base	Main Pole	Sub Pole	Dia. of Clamp Hole	Fine Adjustment	Weight
60kg	60x50x55mm	Ø12x176mm	Ø10x150mm	Ø4mm / Ø8mm / Ø3/8"	With Fine Adjustment	1.5kg

Dasqua® SUPER STRONG (80 kg/176 lb.) MAGNETIC BASE WITH FINE ADJUSTMENT



- With clamp holes of Ø4mm, Ø8mm, 3/8", which satisfy the use of most indicators, test indicators and scribers.
- Solid structure with surfaces electroplated and end-faces ground
- With fine adjustment device, which is heat-treated to ensure stability and durability.
- 176 lb. Holding Power

- 150° V-grooved base can be placed on the cylindrical surfaces as well as flat surfaces for easily fixing the indicators.
- Well selected ferrite permanent magnet with magnetic force greater than calibration value
- On/off switch for magnet, easy to move the base without the influence of magnetic force.



Fine Adjustment
7123-1005

SPECIFICATIONS:

Holding Power	(mm)				Weight
	Base	Main Pole	Sub Pole	Dia. of Clamp Hold	
80kg	60x50x55	Ø12x176	Ø10x150	Ø4mm / Ø8mm / Ø3/8"	1.5kg

Dasqua® HIGH LOCKING FORCE UNIVERSAL MAGNETIC BASE WITH FINE ADJUSTMENT

- Solid arm & joint mechanism.
- Unique central locking mechanism.
- 3-D steel arm movement.
- Super power pull 220 lbs.
- Base Dimension: 2 x 2 x 3" (Depth)
- Overall reach: 21"
- Fine adjustment.
- On/Off switch.
- Our most rigid system.

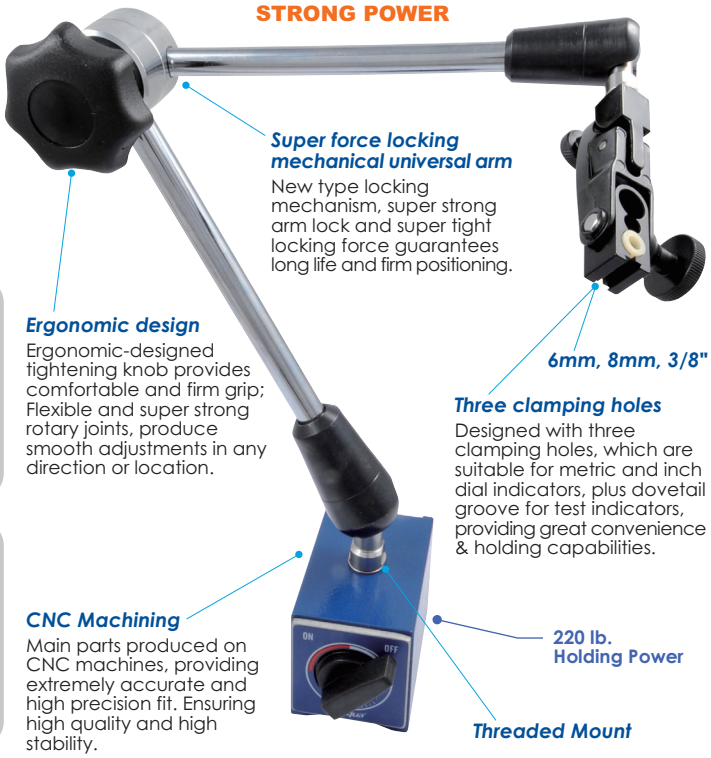
Fine Adjustment
7313-0040







STRONG POWER



Super force locking mechanical universal arm
New type locking mechanism, super strong arm lock and super tight locking force guarantees long life and firm positioning.

Ergonomic design
Ergonomic-designed tightening knob provides comfortable and firm grip; Flexible and super strong rotary joints, produce smooth adjustments in any direction or location.

6mm, 8mm, 3/8"

Three clamping holes
Designed with three clamping holes, which are suitable for metric and inch dial indicators, plus dovetail groove for test indicators, providing great convenience & holding capabilities.

CNC Machining
Main parts produced on CNC machines, providing extremely accurate and high precision fit. Ensuring high quality and high stability.

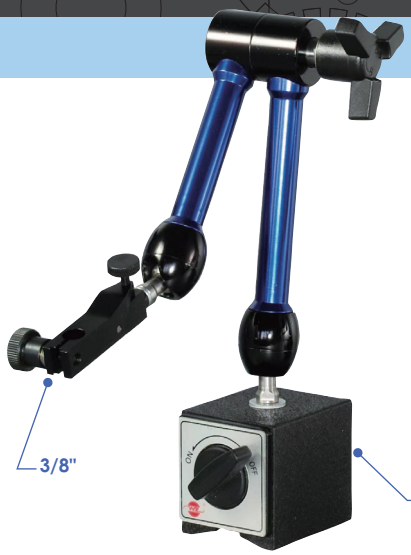
220 lb. Holding Power

Threaded Mount

PRECISION MEASURING TOOLS

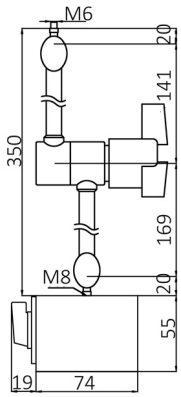
MAGNETIC BASES

HIGH-LOCK UNIVERSAL MAGNETIC BASE - 176 LBS. POWER PULL



- All parts are hardened high grade steel and hardened to HRC 55.
- Spike locking knob for strong tightening.
- 3/8" stem hole for holding a dial indicator.
- Dovetail groove for holding most test indicators.
- Fine adjustment.
- Special designed mechanical locking mechanism increase rigidity.
- Magnetic base with strong 176 lbs. pulling power.
- On/Off switch.

Fine Adjustment
4401-0545
Weight: 3.4 Lbs.

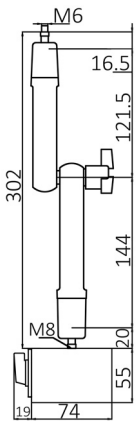


Unit: mm

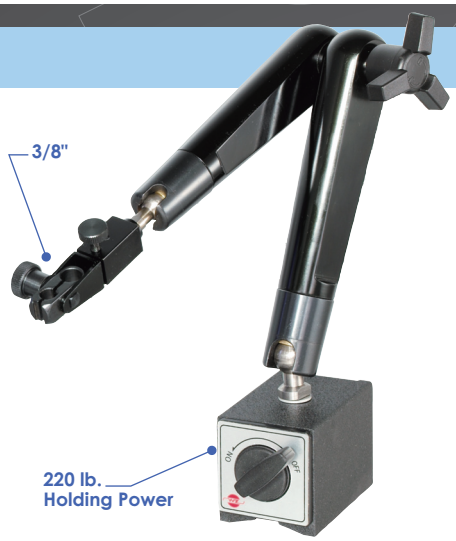
HIGH-LOCK UNIVERSAL MAGNETIC BASE - 220 LBS. POWER PULL

- All parts are hardened high grade steel hardened to HRC 55.
- Spike locking knob for strong tightening.
- 3/8" stem hole for holding a dial indicator.
- Dovetail groove to hold most test indicators.
- Fine adjustment.
- Special designed locking mechanism to increse rigidity.
- Magnetic base has strong 220 lbs. of pulling power.
- On/Off switch.

Fine Adjustment
4401-0540
Weight: 4.4 Lbs.



Unit: mm



STRONG-LOCK UNIVERSAL MAGNETIC BASE

- Solid arm & Joint mechanism.
- Unique central locking mechanism.
- 3-D steel arm movement.
- Super power pull 220 lbs.
- Base Dimension: 2 x2 x 3" (Depth)
- Our most rigid system.
- Overall stem length 18"
- Fine adjustment.
- On/Off switch.

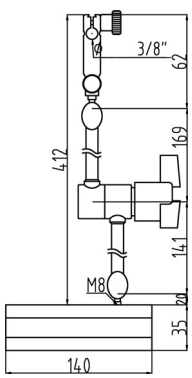
Fine Adjustment
4401-0528



UNIVERSAL INDICATOR STAND WITH V SHAPE BASE

- Heavy base with V-shape base.
- Base is made of high grade tool steel hardened and precision ground.
- Universal mechanism arm with fine adjustment.
- Conforms to most AGD indicators.
- Weight: 6.80 lbs

Fine Adjustment
4401-0125
Weight: 6.8 Lbs.



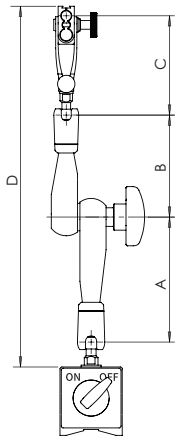
Unit: mm



Dasqua® LOCK'T MAGNETIC BASE



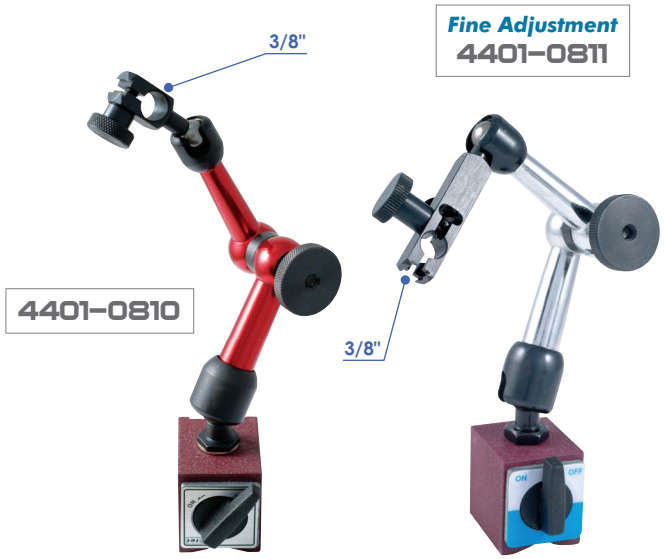
- All wear parts use hardened high grade steel and with hardness over HRC 58°.
- Inner structure is made of bearing steel, delivering more wear-resisting ability and longer service life.



Item#	Holding Power	Base Dimensions	(mm) A	B	C	Reach Length (D)
7121-0020	110 lbs	40x40x40	62	52	79	220
7121-0025	176 lbs	60x50x55	100	82	81	290
7121-0030	220 lbs	74x50x55	145	95	81	355

MINI UNIVERSAL MAGNETIC BASES

- 3-D rigid steel arm movement.
- Unique central locking mechanism.
- Accepts all A.G.D. dial indicators and test indicators.
- Base Dimension: 1.2" (width) x 1.5" (depth).
- Holds 3/8" stem dial indicators & dovetail test indicators.
- On/Off magnet power switch.
- Max. Reach: 7.5" .
- 8mm bushing included.



Pro-Series UNIVERSAL MECHANISM MAGNETIC BASE

- 3-D rigid steel arm movement.
- Unique central locking mechanism.
- Overall stem length: 11.4"
- Super power pull 130 lbs.
- Fine adjustment.
- On/Off switch.
- Base Dimension: 2" (Width) x 2-1/2" (Depth)
- Accepts all AGD dial indicators and test indicators.



MAGNETIC INDICATOR HOLDER

- Holds most of dial and test indicators.
- **Stem holds:** 3/8", 5/16", 1/4" diameter.
- 80 lbs magnetic pull.
- Overall height: 5"
- Fine adjustment.



UNIVERSAL MAGNETIC BASE -UNIQUE TOP ADJUSTMENT

- 3-D rigid aluminium arm movement.
- Unique fine adjustment mechanism.
- On/Off switch
- Dovetail groove for test indicator





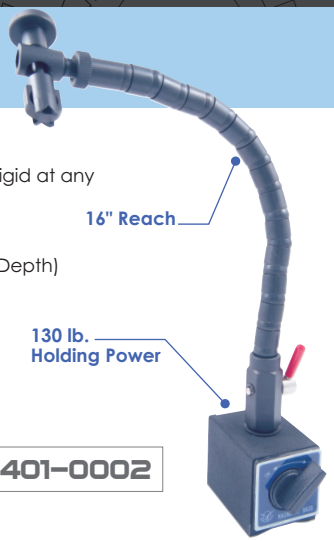
Item#	Holding Power (Lbs.)	Base (L x W x H)	Max. Reach (Inch)
4401-0533	176	60x50x55mm	10.7
4401-0534	220	74x50x55mm	13.7

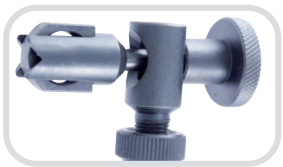
PRECISION MEASURING TOOLS

MAGNETIC BASES

FLEXIBLE ARM MAGNETIC BASE

- Permanent magnet with On/ Off switch control.
- Cam lever operates cable. Locks it rigid at any desired position.
- Cable tension adjustable.
- Accepts all A.G.D. dial indicators.
- Base Dimension: 2" (Width) x 2-1/2" (Depth)
- Stem flexes full 360°.
- Overall length: 13"
- Power Pull: 130 lbs.





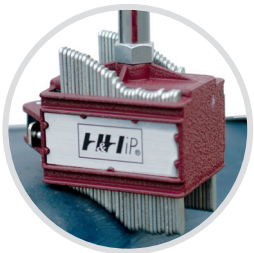
4401–0002

Pro-Series CONTOUR MAGNETIC BASE

- Cam lock mechanism
- Unlimited versatility
- Fine Adjustment
- On/Off knob



Limited Supply!



4401–0510

CENTERED V-MAGNETS

- Grip on round or flat surfaces
- Post Mount Thread: M8x1.25
- 2 magnetic mounting surfaces-bottom and back
- On/off switch



Item#	Dimensions	Power Pull
4401-0814	1.4 x 1.2 x 1.5"	66 lbs.
4401-0111	2 x 2 x 2-1/2"	170 lbs.
4401-0108*	2 x 2 x 4-5/8"	260 lbs.

* Limited Supply

MITY-MAG INDICATOR HOLDER

- Zinc die cast housing.
- 45 lbs holding power.
- Hold up to 3/8" dia. stem.
- 5 Locations for mounting accessories.
- Holder Dimensions: 4-1/2" x1" x1-1/4".

4401–0042



45 LBS HOLDING POWER

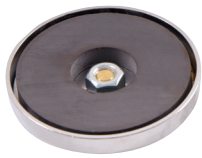
Group 2 INDICATOR MAGNETIC BACKS

- Diameter of Magnetic Back: 2-1/4" for Group II indicators.
- Magnetic back comes with screw-on indicator plain back.
- Can be used with both lug back and plain back indicators.
- Permanent magnet with strong power pull.



4401–0055

45 LBS HOLDING POWER



MADE IN USA 4401–0056

1" DIAL INDICATOR & MAGNETIC BACK KIT

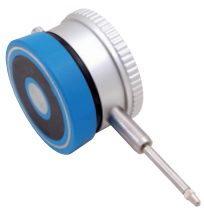


4400–0025

0-1" DIAL INDICATOR

- Grauation: .001"
- Contact point interchangeable with thread 4-48.
- Rack & contact point made of hardened stainless steel.
- Stem: 3/8" diameter.
- Jeweled movement.
- 2" Dia. dial face.





MAGNETIC BACK

- Magnetic back is already mounted on indicator.
- Magnetic back comes with screw on/off back.
- Magnetic back has protective coating and is used to position indicator of most metal surfaces.
- Magnetic back diameter: 2-1/4"

Dasqua® DIAL INDICATOR WITH MAGNETIC BACK

- Indicator strictly made in accordance with DIN 878.
- Permanent powerful magnet.
- Fitting for all group 2 dial indicator.
- Magnet screws off.
- Magnetic force: 20KG.
- Fitted case.

GROUP 2

44 LBS HOLDING POWER



Magnetic Back Only
5111–1010

5111-1010 Shown

Magnetic Back with Indicator Kits

Item#	Indicator Included	Indicator Range	Graduation	Stem Dia.
5111-0001	5111-0000	0-10mm	0.01mm	8mm
5122-4211	5111-4210	0-1"	0.001"	3/8"

Additional Indicators Shown on Pages 57-61.

Dasqua® UNIVERSAL PRECISION GRANITE STANDS

- Precise ground granite base.
- Extremely rugged and universally adjustable to any position, these gage stands are well suited for inspection and layout.
- Checking and lineup operations anywhere in the shop.
- All settings are individually made without disturbing others.
- There versatile stands allow the indicator to be positioned at any height within the capactity of the upright base post.
- 360° both horizontally and vertically.
- Strictly made in accordence with DIN 876.





Limited Supply!

DIN 876

Includes:

Clamps: 6mm/8mm with fine adjustment and dovetail clamp



Item#	Base Dimension	Post height	Post reach	Flatness
7812-0005	6x4"	Ø14x200mm	Ø12x165mm	0.002mm
7812-0010	10x5.5"	Ø14x200mm	Ø12x165mm	0.002mm

16" GRANITE CHECK REPLACEMENT COLUMN - Post

Optional Long Column for Holding Long Range Indicators

INDICATOR & GRANITE PLATE NOT INCLUDED



4401–0018
Includes Clamp & Mounting Screw



PRICE IS FOR POST ONLY

- Convert your standard 6x6, 6x8 or12x8 base to larger capacity stand with this 1" diameter column.
- 16" column includes mounting screw and fine adjustment clamp for all AGD indicators with lug back.

GRANITE CHECK - INDICATOR STAND

- Fine adjustment.
- 10" height.
- 0.00005" granite flatness.
- Accepts all AGD Indicators with lug back.
- Grade 00

Stand & 1" Travel Indicator Kit
4401–2001
4401-0020 & 4400-0001



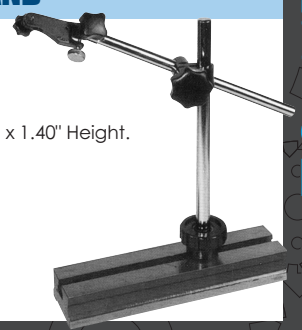
Granite Stand Only

Item#	Base Size
4401-0020	6 x 6 x 2"
4401-0021	6 x 8 x 2"
4401-0019	12 x 8 x 2"

UNIVERSAL MEASURING STAND

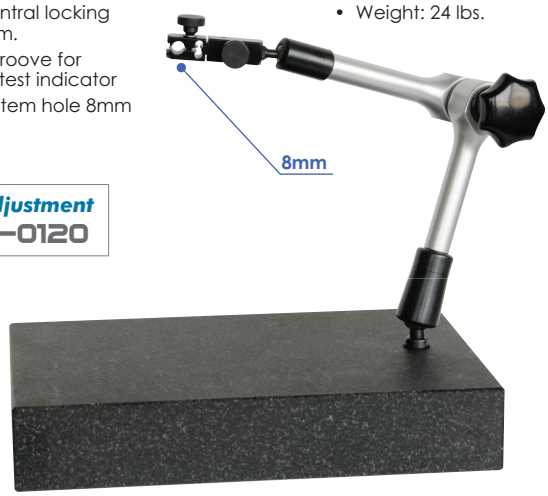
- Heavy base allows any surface set-up.
- Base is made of high grade tool steel hardened and precision ground.
- Max. Extension: 14"
- Base Dimension: 8.90" Length x 2.30" Width x 1.40" Height.
- Conforms to most of AGD indicators.
- Weight: 7 lbs

Fine Adjustment
4401–0413



GRANITE STAND W/UNIVERSAL ARM

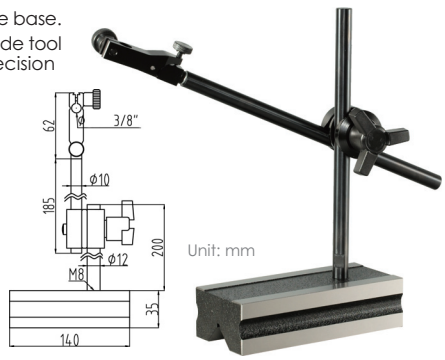
- 12x8x2" granite plate.
- 3-D rigid steel arm movement.
- Unique central locking mechanism.
- Dovetail groove for clamping test indicator
- Indicator stem hole 8mm
- Fine adjustment.
- Overall Reach: 15"
- Weight: 24 lbs.



Fine Adjustment
4401–0120

INDICATOR STAND WITH V SHAPE BASE

- Heavy base with V-shape base.
- Base is made of high grade tool steel hardened and precision ground.
- Fine adjustment.
- Conforms to most AGD indicators.
- Weight: 6 lbs



Unit: mm

Fine Adjustment
4401–0130

PRECISION MEASURING TOOLS

INDICATOR & MAGNETIC BASE KITS

2 PC MAGNETIC BASE & INDICATOR KIT

PRO-SERIES MAGNETIC BASES
- Overall height: 9" .
- Off and On switch.
- Scribe-opening: 5/32" .
- Power Pull: 130 lbs.
- Base size : 2" (Width) x 2-1/2" (Depth).
- Holds most of AGD dial and test indicators.

0-1" DIAL INDICATOR
- Graduation: .001"
- Stem: 3/8" diameter.
- 2" Dia. dial face.
- Lug back.

2 PC SET
4401-0017
4401-1100 & 4400-0001





Dasqua® 3 PC SET- 0-1 DIAL INDICATOR, FLEXIBLE ARM MAGNETIC BASE & MAGNETIC BACK

1" /0.001" DIAL INDICATOR (GROUP 2)
- Hardened metal construction for longer life.
- Stable and high accuracy.
- Made in accordance to ASME B89.1.10M-2001
- Extra flannelette bag to protect the dial indicator during repeated usage.
- Resolution: 0.001"
- Stem: 3/8"
- Dial Face: 2"
- Lug back.
- 4-48 Thread

3 PC SET
7611-2005

FLEXIBLE ARM MAGNETIC BASE
- Permanent magnet with On/ Off switch control.
- Cam lever operates cable. Locks it rigid at any desired position.
- Cable tension adjustable.
- Stem flexes full 360°.
- Accepts all A.G.D. dial indicators.
- Overall length: 13"
- Power Pull: 130 lbs.
- Base Dimension: 2" (Width) x 2-1/2" (Depth)

PACKED IN FITTED CASE



MAGNETIC BACK
- Magnetic back comes with screw on/off back.
- Magnetic back has protective coating and is used to position indicator of most metal surfaces.
- Magnetic back diameter: 2-1/4"
- Magnetic Force: 20 KG

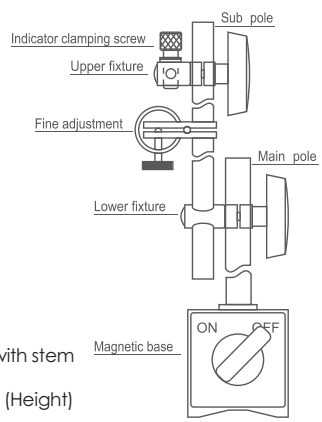




Dasqua® 2 PC MAGNETIC BASE WITH FINE ADJUSTMENT & 1" DIAL INDICATOR SET

0~1" DIAL INDICATOR (5122-4212)
- Graduation: .001"
- Lug back
- Contact point thread 4-48
- Stem: 3/8"
- Dial Face: 2-3/8"

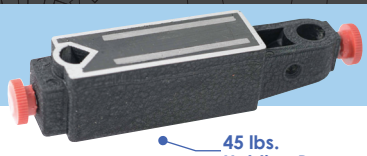
2 PC SET
7611-2010

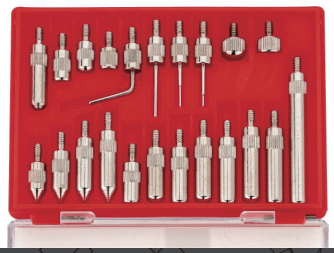


MAGNETIC BASE (7123-1004)
- Holding power 60kg
- Fine adjustment
- On/off switch
- Power Pull: 132 lbs
- Overall Height: 9"
- Max Reach: 15"
- Main Pole 9"; sub pole 6"
- Hold most of AGD group indicators with stem 4mm/8mm/3/8" diameter.
- Base: 2" (Width) x 2-.36" (Depth)x 2.2" (Height)

3 PC DIAL INDICATOR, MITY-MAG HOLDER & 22 PC IND. POINT KIT







0-1" DIAL INDICATOR
- Graduation: .001"
- Contact point interchangeable with thread 4-48.
- Rack & contact point made of hardened stainless steel.
- Stem: 3/8" diameter.
- Jeweled movement.
- 2" Dia. dial face.
- Lug back.

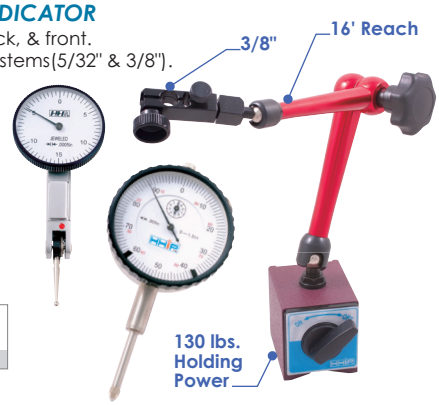
4400-0026

22 PC INDICATOR POINT KIT
- Fits most American and imported indicators.
- A.G.D. Specifications (4-48 Threads).
- Assorted points.

MITY-MAG HOLDER
- Zinc die cast housing.
- 45 lbs holding power.
- 5 Locations for mounting accessories.
- Hold up to 3/8" dia. stem.
- Holder Dimension: 4-1/2 x1x1-1/4"

3 PC TEST INDICATOR, TRAVEL INDICATOR & UNIVERSAL MAGNETIC BASE KIT

0-0.03" RANGE TEST INDICATOR
- Dovetail mount top, back, & front.
- Includes fitted case & 2 stems(5/32" & 3/8").
- Reading: 0-15-0
- Graduation: .0005"
- Precision pivot bearing.
- 0.098" Contact point.
- Satin chrome finish.
- Jeweled movements.
- Automatic reversing.



4400-0018
4400-0010, 4400-0001 & 4401-0511

0-1" DIAL INDICATOR
- Graduation: .001"
- Contact point interchange-able with thread 4-48.
- Stem: 3/8" diameter.
- Rack & contact point made of hardened stainless steel.
- Jeweled movement.
- 2" Dia. dial face.
- Lug back.

PRO-QUALITY UNIVERSAL MAGNETIC BASE
- 3-D rigid steel arm movement.
- Unique central locking mechanism.
- Fine adjustable.
- On/Off switch.
- Super power pull 130 lbs.
- Base Dimension: 2"(Width)x2-1/2"(Depth)

DIAL TEST INDICATOR & MINI UNIVERSAL MAGNETIC BASE KIT

0-0.03" RANGE TEST INDICATOR
- Graduation: .0005"
- Dovetail mount top, back, & front.
- Includes fitted case & 2 stems(5/32" & 3/8").
- Precision pivot bearing.
- Reading: 0-15-0
- 0.098" Contact point.
- Satin chrome finish.
- Jeweled movements.
- Automatic reversing.

4400-0027
4400-0010 & 4401-0811



MINI UNIVERSAL MAG BASE WITH FINE ADJUSTMENT
- 3-D rigid steel arm movement.
- Unique central locking mechanism.
- Accepts all A.G.D. dial indicators and test indicators.
- On/Off magnet power switch.
- Max. Reach: 7.5".
- Base Dimension: 1.2" (width) x 1.5" (depth).

DIAL TEST INDICATOR & MINI UNIVERSAL MAGNETIC BASE KIT

0-0.03" RANGE TEST INDICATOR
- Graduation: .0005"
- Reading: 0-15-0
- Precision pivot bearing.
- Dovetail mount top, back, & front.
- Includes fitted case & 2 stems (5/32" & 3/8").
- 0.098" Contact point.
- Satin chrome finish.
- Jeweled movements.
- Automatic reversing.



Limited Supply!



4400-0016
4400-0010 & 4401-0810

MINI UNIVERSAL MAG BASE
- 3-D rigid steel arm movement.
- Unique central locking mechanism.
- Accepts all A.G.D. dial indicators and test indicators.
- On/Off magnet power switch.
- Max. Reach: 7.5".
- Base Dimension: 1.2" (width) x 1.5" (depth).

MITY-MAG HOLDER & 1" TRAVEL DIAL INDICATOR KIT



0-1" DIAL INDICATOR
- Graduation: .001"
- Contact point interchangeable with thread 4-48.
- Rack & contact point made of hardened stainless steel.
- Stem: 3/8" diameter.
- Jeweled movement.
- 2" Dia. dial face.
- Lug back.

4400-0024
4400-0001 & 4401-0042



MITY-MAG HOLDER
- Zinc die cast housing.
- 45 lbs holding power.
- 5 Locations for mounting accessories.
- Hold up to 3/8" dia. stem.
- Holder Dimension: 4-1/2 x1x1-1/4"

Dasqua® 2 PC TOOL KIT-
IP54 WATERPROOF 1" INDICATOR & 176 LBS FINE ADJUSTMENT MAGNETIC BASE

IP54 1" INDICATOR

- Stable and high accuracy.
- According to ASME B89.1.10M-2001.
- Hardened metal construction for longer life.
- Extra flannelette bag to protect the dial indicator for repeated usage.

SHOCK-PROOF | IP54 COOLANT & FLUID RESISTANT

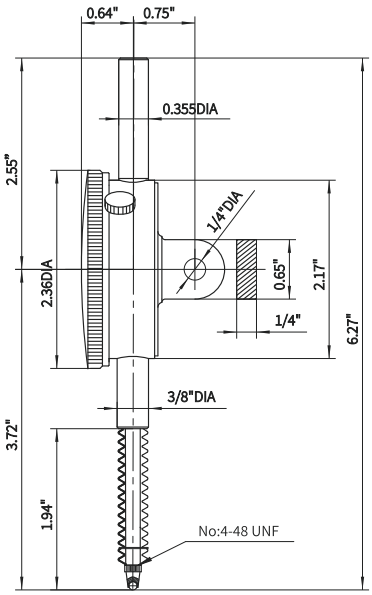


2 PC SET
7611–0009

SPECIFICATIONS	
Range	0-1"
Graduation	0.001"
Style	Lug Back
Accuracy	+/- 0.002"
Hysteresis	0.00033"







PACKED IN FITTED CASE

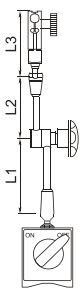
176 lbs. UNIVERSAL MAGNETIC BASE

- Universal strong and precise rotary jointed arms, which can adjust to any position.
- Central locking mechanism.
- Clamping force can be continuously adjusted, with high stability.
- With clamp hole, dovetail groove, which can clamp many types of indicators.
- 150° V-grooved base, can be placed on the cylindrical surfaces for easily fixing the indicators.
- On/off switch for magnet, easy to move the base without the influence of magnetic force.
- Ball joints enables quick and easy positioning, all three joints are controlled by a tightening knob.

SPECIFICATIONS	
Holding Powers	176 Lbs.
Base	2.36x1.97x2.17"
Arm Length	12.28"
L1	4.33"
L2	3.98"
L3	2.87"
Dia. of Clamp	6mm,8mm,3/8"









3 PC MAGNETIC BASE & INDICATOR KIT

22 PC INDICATOR POINT KIT

- Fits most American and imported indicators.
- A.G.D. specifications (4-48 Threads)
- Assorted points.

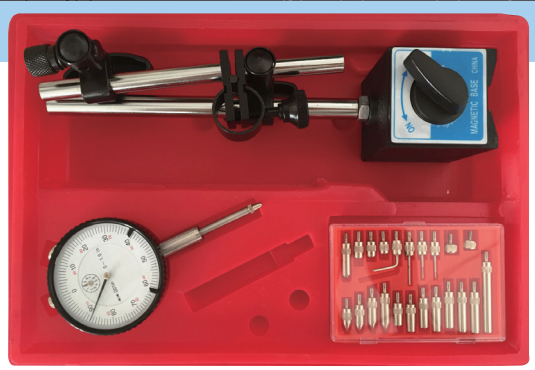
3 PC SET
4902–0012
Complete with fitted case

MAGNETIC BASE

- Overall height: 9" .
- Off and On switch.
- Scribe-opening: 5/32" .
- Power Pull: 130 lbs.
- Base size : 2" (Width) x 2-1/2" (Depth).
- Holds most of AGD dial and test indicators.

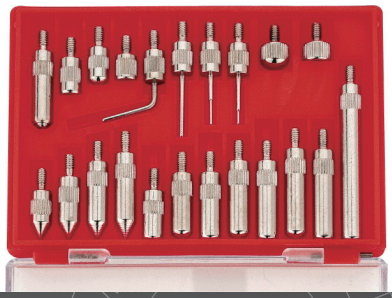
0-1" DIAL INDICATOR

- Graduation: .001"
- Stem: 3/8" diameter.
- 2" Dia. dial face.
- Lug back.



22 PC INDICATOR POINT KITS

- Fits most American and imported indicators.
- A.G.D. Specifications (4-48 Threads).
- Assorted points.

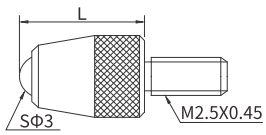


4400-0050

MADE IN USA 4400-1050

Dasqua® INDICATOR REPLACEMENT POINT WITH CARBIDE BALL POINT - Metric





- M2.5 thread.
- Carbide ball point.
- Fits indicators that have a M2.5x0.45 thread.

Limited Supply!

Item#	Material	Length	S Ø D
5333-6101	Carbide	7.3mm	3.0mm

INDICATOR EXTENSION POINT & KIT



3PC Set

- 4-48 internal and external threads
- Fits most of AGD group indicators

3 PC Steel Kit
4401-0433
Includes: 1,2 & 3"

INDICATOR EXTENSION POINT ONLY

Item#	Length	Material
4401-0439*	1"	Stainless Steel



* Limited Supply

METRIC TO ENGLISH INDICATOR CONVERSION POINT

- Use the same standard inch AGD points with metric indicators
- Dimension: 7/32" dia., 1/2" long
- **4-48 internal threads, M2.5 x 0.45 external threads**
- Steel, black oxide plated



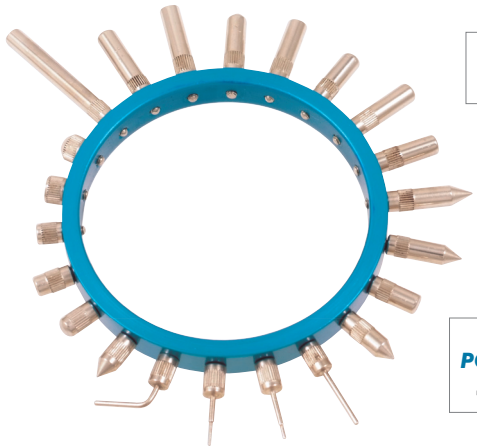
Limited Supply!

4401-0430

USE ENGLISH POINTS ON METRIC INDICATORS

22 PC INDICATOR CONTACT POINT RING & KIT

- 22 Points with4-48 screw thread to fit AGD indicators
- All Points are mounted on a convenent alumium ring for safe keeping and ready selection.
- Premium quality.



RING ONLY
4401-0480*
* Limited Supply

22 PC POINT & RING KIT
4401-0481

INDICATOR REPLACEMENT POINT -Inch

- 4-48 threaded contact point for indicators
- Replacement contact point.
- Fits indicators that have a 4-48 thread.
- Made of hardened stainless steel.

4400-3139



DIAL INDICATOR BACK COVERS

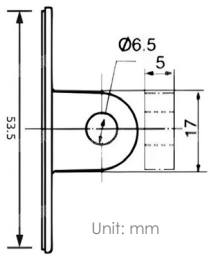
- For AGD group 2 indicators with a 2-1/4" diameter.
- Four hole pattern.



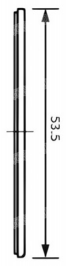
Lug Back
4401-0057



Flat Back
4400-3140



Unit: mm



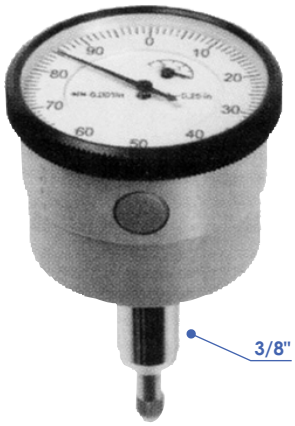
PRECISION MEASURING TOOLS

DIAL INDICATORS

BACK PLUNGE DIAL INDICATOR

- Easy to read from top.
- Reading: 0-100
- Conforms to AGD standards.
- Dial face diameter: 1-3/8"
- Made of stainless steel.
- Rotatable bezel.

0.001" GRADUATION



0~0.20" Range
4400-0015

0~.250 TRAVEL DIAL INDICATOR - GROUP 1

- AGD Group I.
- 1-1/2" diameter dial face.
- Reading: 0-100
- Rack & contact point made of hardened stainless steel.
- Jeweled movement.
- Lug back.



AGD GROUP 1

0~0.25" Range
4400-0003

0.001" GRADUATION

0~.125 TRAVEL DIAL INDICATOR - GROUP 1



- 1-1/2" diameter dial face.
- Reading: 0-50
- Rack & contact point made of hardened stainless steel.
- Jeweled movement.
- Lug back.

AGD GROUP 1

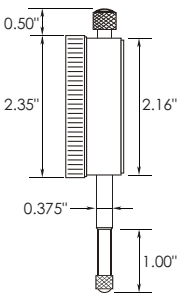
4400-0005

0.0005" GRADUATION

0~.250 TRAVEL DIAL INDICATOR - GROUP 2

0.0005" GRADUATION

AGD GROUP 2





0~1/4" Range
4400-1252

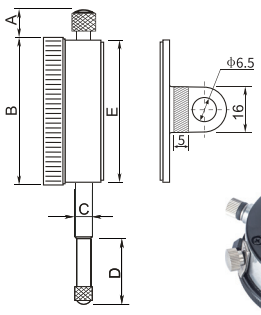
Dasqua® 0~0.5" DIAL INDICATOR - GROUP 2

- Used to measure surface flatness as well as axial runout and also used to check tool set up and squareness.
- Limit indicator clips included.
- Strictly made in accordance with ASME B89.1.10M.
- Casting diameter: 58mm, shank diameter: 8mm
- Satin chrome plated steel case.

GROUP 2



DIN 878



0.0005" GRADUATION





0-0.5" Range
5122-4205



SPECIFICATIONS:

Range	Graduation	Style	(mm) A	B	C	D	E	Accuracy
0-0.5"	0.0005"	lug back	10.5	58	Ø 3/8"	20.5	Ø53.5	+/- 0.0015"

Pro-Series DIAL INDICATORS - GROUP 2

- Rack & contact point made of hardened stainless steel.
- Contact point interchangeable with thread 4-48.
- Stem: 3/8" diameter.
- Jeweled movement.
- 2" Dia. dial face.
- Lug Back

HHIP PRO-SERIES

AGD GROUP 2



0~1" Range
4400-0001

0~2" Range
4400-0002

Item#	Range	Graduation	Reading
4400-1250	0~0.25"	.0001"	0-100
4400-0004	0~0.50"	.001"	0-100
4400-1095	0~0.50"	.0005"	0-100
4400-0001	0~1"	.001"	0-100
4400-1100	0~1"	.0005"	0-50
4400-1000	0~1"	.0001"	0-100
4400-0012	0~1" (Flat Back)	.001"	0-100 0-100
4400-0002	0~2"	.001"	0-100

Replacement Contact Point (4-48 thread) (Item #4400-3139)

BLACK FACE DIAL INDICATORS - GROUP 2

- Contact point interchangeable with thread 4-48.
- Rack & contact point made of hardened stainless steel.
- Jeweled movement.
- Stem: 3/8" diameter.
- 2" Dia. dial face.
- Graduation: 0.001"
- Reading: 0-100
- Lug back.

AGD GROUP 2



Black Face
0~1" Range
4400-1102

Black Face
0~2" Range
4400-0035

Replacement Contact Point (4-48 thread) (Item #4400-3139)

PRECISION MEASURING TOOLS

1" DIAL INDICATOR WITH LIFTING LEVER - GROUP 2



- Lifting lever.
- Rack & contact point made of hardened stainless steel.
- Contact point interchangeable with thread 4-48.
- **Stem: 3/8" diameter.**
- Jeweled movement.
- 2" Dia. dial face.
- Lug Back

AGD GROUP 2

Reading 0-100

0~1" Range
4400–1090





Z-Limit 1" TRAVEL INDICATOR - GROUP 2



GROUP 2

- 6 Jeweles movement.
- Bezel lock screw designed for easy adjustment.
- Contact point interchangeable with thread 4-48.
- Stem: 3/8" diameter.
- Dial Face: 2.19" diameter.
- Reading range pointers installed in the bezel.
- Long form of calibration certificate included
- Dual Back: flat back installed with an extra lug back.
- Complete with a fitted durable plastic case.

Z-Limit ULTRA-SERIES



0~1" Range
4409–4001

0.001" GRADUATION
READING 0-100-0

Replacement Contact Point (4-48 thread)(Item #4400-3139)

2" TRAVEL LARGE FACE INDICATOR - GROUP 3



- Contact point interchangeable with thread 4-48.
- Stem: 3/8" diameter.
- **Dial Face: 2.97" diameter.**
- Lug back.

GROUP 3

0.001" GRADUATION
READING 0-100-0

0~2" Range
4400–0036

Replacement Contact Point (4-48 thread)
(Item #4400-3139).....**$1.53(F)**

Teclock DIAL INDICATORS - GROUP 2

- Easy-to-read graduations.
- Hard satin-chrome finish.
- Spindle rack, pinions and gear trains are superior quality, ensuring longevity.
- Conforms to AGD specifications.
- Meets or exceeds applicable federal specifications.
- Revolution counter.
- Stem: 3/8" Diameter.
- Face Diameter: 2-3/16".
- 0-100 reading.
- Lug back.

GROUP 2

0~2" Range
4409–1002

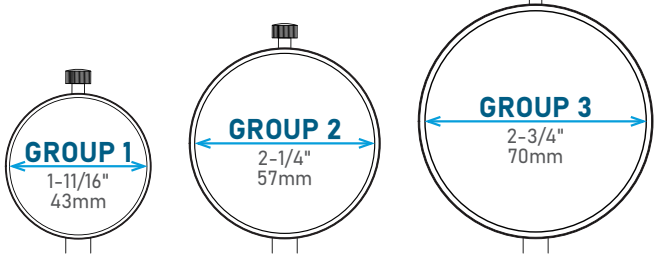
0.001" GRADUATION



0~1" Range
4409–1001

DIAL INDICATOR GROUP SPECIFICATIONS

Face Diametor Shown



Dasqua® 0.0001" 0-1" DIAL INDICATOR - GROUP 2
WITH FLAT BACK & LUG BACK

GROUP 2

- Used to measure surface flatness as well as axial runout and also used to check tool set up and squareness.
- Lug back included.
- Strictly made in accordance with ASME B89.1.10M.
- Casting diameter: 58mm, shank diameter: 3/8"
- Satin chrome plated steel case.



ULTRA PRECISION 0.0001" GRADUATION



0-1 INCH
5122-4245



EXTREME PRECISION FOR ACCURATE MEASUREMENT!

Dasqua® 1" DIAL INDICATOR - GROUP 2



- Hardened metal construction for longer life.
- Stable and high accuracy.
- Made in accordance to ASME B89.1.10M-2001
- Extra flannelette bag to protect the dial indicator for repeated usage.
- Stem: 3/8"
- Dial Face: 2-5/8"
- 4-48 Thread

GROUP 2



Item#	Range	Graduation	Style	Accuracy	Hysteresis
5122-4212	0-1"	0.001"	Lug Back	±0.002"	0.00033"

Dasqua® 2" DIAL INDICATORS - GROUP 2

DIN 878

- Used to measure surface flatness as well as axial runout and also used to check tool set up and squareness.
- Limit indicator clips included.
- Strictly made in accordance with DIN 878.
- Jeweled bearings on 5122-4215 and 5122-4220 provide the lowest possible bearing friction.
- Casting diameter: 58mm, shank diameter: 8mm
- Satin chrome plated steel case.



GROUP 2



5122-4215 Shown

5122-4214 Shown

0.001" GRADUATION

Replacement M2.5 x 0.45mm Point (Item #5260-9999)

Item#	Range	Scale divisions	Style	(mm) A	B	C	D	E	Accuracy	Protection Standard
5122-4214	0-2"	0.001"	lug back	79.3	58	8	57.7	53.5	0.004"	No Jeweled Bearing
5122-4215	0-2"	0.001"	lug back	79.3	58	8	57.7	53.5	0.004"	Jeweled Bearing

METRIC DIAL INDICATORS - GROUP 2

- **PRECISION 0.01MM GRADUATION** – Provides accurate measurements for machine setup, inspection, and alignment applications.
- **LARGE 2-INCH DIAL FACE** – Easy-to-read graduations improve visibility and reduce reading errors.
- **HARDENED CONTACT POINT** – Wear-resistant construction delivers long service life and consistent performance.
- **STANDARD 8MM STEM MOUNT** – Compatible with most magnetic bases, indicator holders, and inspection fixtures.
- **VERSATILE SHOP APPLICATIONS** – Ideal for setup, runout checks, alignment, and dimensional inspection in machine shops and tool rooms.

GROUP 2

0.01mm GRADUATION

0~10mm Range
4400-1101

0~20mm Range
4400-0019



Dasqua® 0-10MM METRIC DIAL INDICATOR -GROUP 2

DIN 878

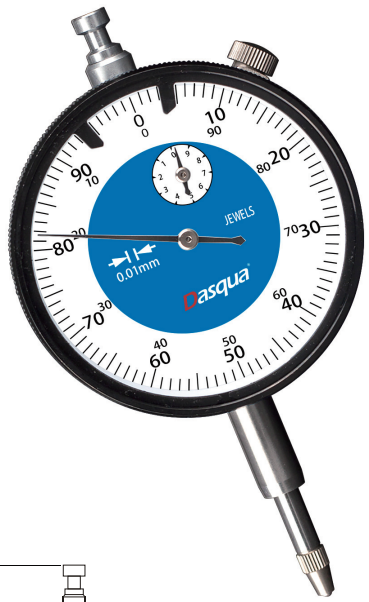
- **0.017MM ACCURACY** – Delivers precise, repeatable measurements for inspection, setup, and quality control applications.
- **0.01MM GRADUATION** – Fine resolution allows accurate readings for machining and measurement tasks.
- **LUG BACK & FLAT BACK MOUNTING** – Multiple mounting options fit magnetic bases and indicator stands.
- **DIN 878 COMPLIANT** – Manufactured to recognized accuracy standards with only 0.003mm hysteresis.
- **DURABLE HARD CHROME CONSTRUCTION** – 8mm stem and hard chrome body provide long service life in shop environments.

GROUP 2

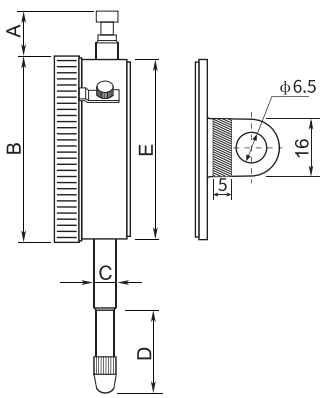
0.01mm GRADUATION

TIP THREAD: M2.5

0~10MM Range
5111-1005







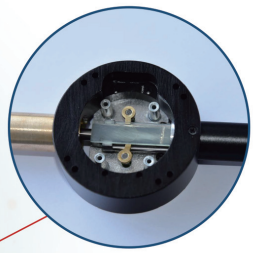
SPECIFICATION

Range	Graduation	Style	(mm)					Accuracy	Hysteresis
			A	B	C	D	E		
0-10	0.01	Lug back & Flat back	10.5	58	8	20.5	53.5	0.017	0.003

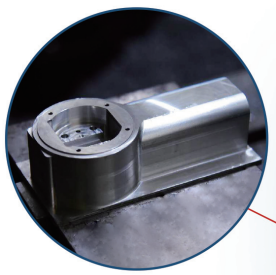
Dasqua® DIGITAL ELECTRONIC INDICATORS -GROUP 2

Battery + CR2032 | mm/in | Data output

- Calibration certificate provided with total forward error, hysteresis error, total error and deviation error on it.
- Watchcase made of high-strength aluminum alloy guaranteeing low deformation.
- Glass grating for high accuracy and stable performance.
- Temperature and humidity test for each product, ensuring the normal use of each in harsh environment.
- Copper sleeve and rod precisely ground to reduce shaking.
- The functions of tolerance set and tolerance alarm are optional.
- Alarm light is also available for quick-checking products' tolerance.
- 3 Bottons: On/Off, Inch/mm & ABS/PRESET
- Contact Point Thread: M2.5x0.45
- Stem Diameter: 8mm
- Standard CR-2032(3V) battery included.
- Flat back
- Fitted case



Glass grating for high accuracy and stable performance



Housing entirely cast made of high-strength aluminum alloy guaranteeing low deformation



GROUP 2



INCH/METRIC
0.0005" GRADUATION

Temperature and humidity test for each product, ensuring the normal use of each in harsh environment



Replacement Contact Point
M2.5x0.45
5260-9999

REPLACEMENT BATTERY (ITEM #4102-0032)

Item#	Range	Resolution	(mm) A	B	C	D	E	F	G	H	L
5260-1105	0-0.5"/0-12.7mm	.0005"/.01mm	47.7	51.5	25.8	32.4	Ø57.4	Ø8h6	Ø4.5	Ø10	125
5260-1110	0-1.0"/0-25.4mm	.0005"/.01mm	68	76	33	34.7	Ø57.4	Ø8h6	Ø4.5	Ø16	183
5260-1115	0-2.0"/0-50.8mm	.0005"/.01mm	91	102.8	51.5	34.7	Ø57.4	Ø8h6	Ø4.5	Ø16	247

DIAL TEST INDICATORS

PRECISION DIAL TEST INDICATORS

- Dovetail mount top, back & front.
- Includes fitted case & 2 stems(5/32" & 3/8").
- Precision pivot bearing.
- 0.098" Contact point.
- Satin chrome finish.
- Jeweled movements.
- Automatic reversing.

White Face
0~0.03" Range
4400-0010



Item#	Range	Graduation	Face	Reading
4400-0010	0~0.03"	0.0005"	White	0-15-0
4400-1001	0~0.03"	0.0005"	Black	0-15-0
4400-0100	0~0.008"	0.0001"	White	0-40-0

Replacement Point For 0~0.03"(Item #4400-1007) (M1.8 Thread)
Replacement Point For 0~0.008"(Item #4400-1008) (M2 Thread)

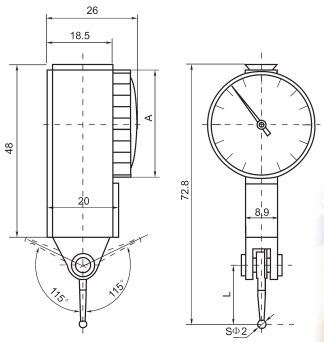
Dasqua® DIAL TEST INDICATOR

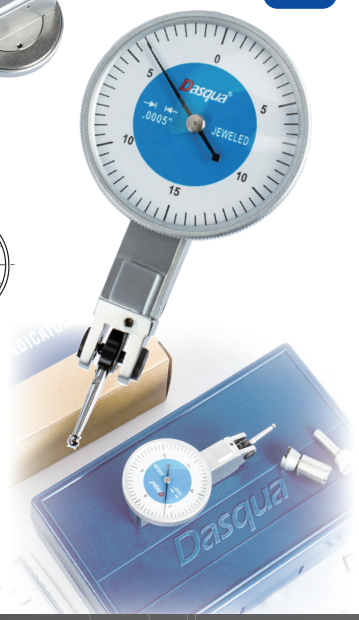
ASME B89.1.10M

- **High Precision Measurement** – Measures up to 0.03" with fine 0.0005" graduation and a 0-15-0 balanced dial for accurate deviation readings.
- **Smooth Gear-Driven Movement** – Precision jeweled, gear-driven mechanism with auto-reversing contact point ensures consistent clockwise hand rotation.
- **Dual Dovetail Mounting** – Includes 5/32" and 3/8" dovetail stems, compatible with most test indicator holders and accessories.
- **Clear, Easy-to-Read Dial** – High-contrast white face with blue insert improves visibility and reduces reading errors.
- **Slim, Durable Design** – Low-profile body reaches tight spaces; satin chrome finish resists wear and corrosion.
- **Shop-Ready Accuracy** – Hardened and ground contact point, friction-adjustable stylus, and meets/exceeds ANSI/ASME standards.
- **Includes**: dial test indicator, fitted storage case with a foam insert, two interchangeable dovetail stems (5/3"; 3/8") and a factory inspection certificate.









0.0005" RESOLUTION

Item#	Range	Graduation	Casing Dia. (A)	Length of Stylus (L)	Dail Reading
5610-0165	0-0.03"	0.0005"	1.18"	0.62"	0-15-0

TEST INDICATOR KIT

0~0.030" Dial test indicator

- Dovetail mount top, back & front
- Precision pivot bearing
- Satin chrome finish
- Jeweled movement
- Dial reading 0-15-0
- Dial diameter: 1-1/4"
- Steel contact point.

Axial Support

- Used for mounting indicators with dovetails or rods.
- 3/8" diameter body for secure support
- Multi-position, 360° capability
- 0.375" shank
- Constant tension

Height Gage Attachement

- Fits all indicators equipped with rods or dovetails.

Complete Kit
0~.030" Range
4400-1005

Kit Includes:

- 0~0.030" Test Indicator
- Axial support
- Height Gage Bar with Clamp Universal Holder
- Adapter Sleeve
- 3 contact points (0.040", 0.080", 0.120")
- Contact Point Wrench
- 2 dovetail clamps (stems 5/32",3/8")
- Fitted case

0.0005" GRADUATION



METRIC DIAL TEST INDICATORS

- Precision pivot bearing.
- 2.5mm contact point.
- Satin chrome finish.
- Jeweled movements.
- Automatic reversing.
- Includes fitted case & 2 stems (6mm & 8mm).
- Dovetail mount top, back, & front.



0~0.8mm Range
0.01mm Graduation
4400–1004

0~0.2mm Range
0.002mm Graduation
4400–1014*

* Limited Supply

Ultra-Series DIAL TEST INDICATOR WITH DOVETAIL MOUNT

- **Manufactured and inspected at world class factory that produces highest quality European brands.**
- Three dovetail positioning mounts work with most existing test indicator accessories.
- Precision gear-driven design with smooth, jeweled movement.
- Contact point reverses automatically, always maintaining clockwise hand rotation.
- Frictionally adjustable contacts.
- Meets or exceeds ANSI/ASME accuracy specifications.
- High contrast, easy-to-read dials with white background.
- Narrow body for in reach ability.
- Satin chrome finish for durability.



Kit includes:
2-contact points,
2-dovetail clamps(stem 5/32 & 3/8"),
1-swivel post holder,
1-tool post holder,
1-contact wrench with fitted case.

0~0.03" Range
Graduation 0.0005
4409–1208

Dasqua® DIAL TEST INDICATOR WITH LARGE DIAL FACE

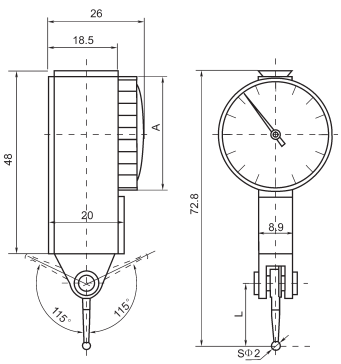
- The Dasqua Dial Test Indicator is engineered for precision machinists demanding the highest standards, built with a focus on durability and accuracy.
- Delivers accurate measurements with a graduation of 0.0005" for precise adjustments.
- A hard frame body and shock-proof gearing with smooth movement to ensure long-lasting performance in demanding environments.
- The large, white-edged dial provides easy-to-read measurements.
- Includes 5/32" and 3/8" stems for various applications.
- Backed by a traceable QC system and a two-year warranty for peace of mind.
- Dial face is 1-1/2" (37mm) diameter.
- Contact point is .078" (2mm).
- Dovetail mount on top, back & front.
- Length of stylus is .062" (15.7mm).
- Jeweled movements. Shock proof. Satin chrome finish. Automatic reversing.
- Supplied in a fitted case with warranty letter and calibration certificate (not NIST traceable).

ASME B89.1.10M

0.0005" RESOLUTION











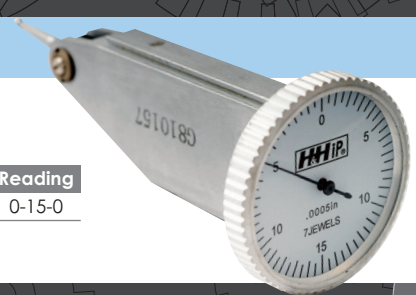
Item#	Range	Graduation	Casing Dia. (A)	Length of Stylus (L)	Dail Reading
5610-0162	0-0.03"	0.0005"	1.48"	0.62"	0-10-0

VERTICAL DIAL TEST INDICATOR

- Dovetail mounting top, back and bottom.
- Adjustable bezel and dial are easily set and reset to zero.
- Satin chrome finishing.
- Contact point can be displaced 210°.
- Includes 2 stems (5/32" & 3/8").

0~0.03" Range
4400–1002

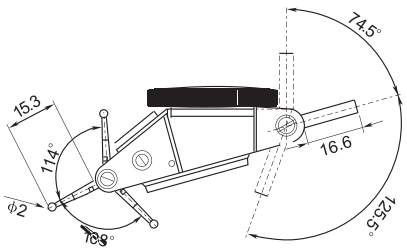
Range	Graduation	Reading
0~0.03"	0.0005"	0-15-0



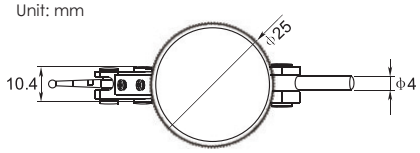
PRECISION MEASURING TOOLS

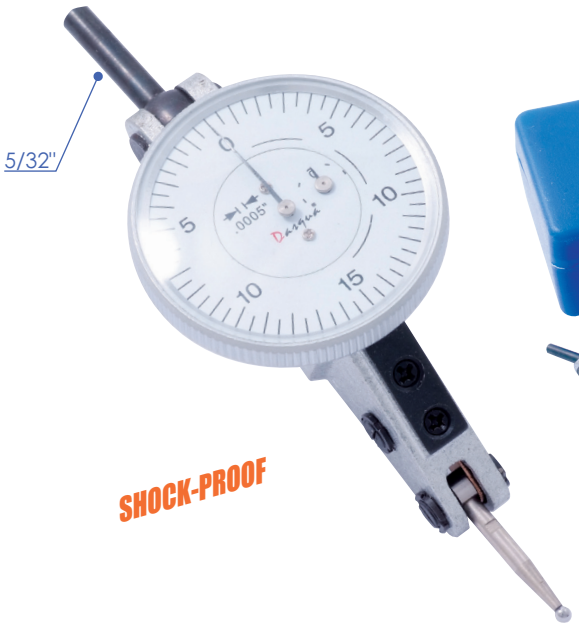
Dasqua® DOUBLE RANGE TEST INDICATORS

- High precision contact point.
- 210° swivel arc.
- Jeweled bearing.
- Automatic reversal.
- Includes 3 contact points: 0.040", 0.080", 0.120" and 2 dovetail stem clamps.



Unit: mm







Item#	Range	Reading	Dial	Dial Reading
5221-1115*	1.6mm	0.01mm	25mm	0-40-0
5222-6110	0.060"	0.0005"	1.5"	0-15-0

* Limited Supply







Replacement Points for Inch or Metric Indicators

Item#	Description
5222-6003*	Replacement Point 0.040" (M1.6 Thread)
5222-6005*	Replacement Point 0.120" (M1.6 Thread)

* Limited Supply

Dasqua® DOUBLE RANGE DIAL TEST INDICATOR KIT

- Tough shock-proof gearing.
- A hard frame body providing excellent rigidity.
- White edge of dial for easy to read.
- Satin chrome-finish case for durability.
- Precision gear-driven design with smooth movement.
- With twice the range on large easy-to-read tilted dial.

0.0005 GRADUATION
Reading: 0-15-0

0~0.060" Range
5222-6002



Kit includes:

- 3 contact points (0.040", 0.080", 0.120")
- 2 dovetail clamps (stems 5/32", 3/8")
- Axial support
- Height gage bar with dovetail clamp-3/8" hole

Replacement Points

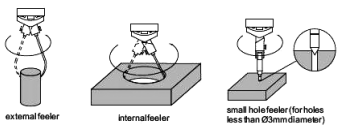
Item#	Description
5222-6003*	Replacement Point 0.040" (M1.6 Thread)
5222-6005*	Replacement Point 0.120" (M1.6 Thread)

* Limited Supply

PRECISION CENTERING INDICATOR

- Quick, accurate, easy centering in boring and milling set-up on horizontal or vertical machines.
- Operates at an angle from horizontal to vertical machines, and from internal to external diameter without any change by simply changing the feeler.
- Face of the indicator remains stationary at any desired position while the machine spindle rotates, leaving the operator with both hands free to accurately position the table.





0.0005" Graduation
4400-0020

SPECIFICATIONS	
Body Length:	5-1/2"
Shank:	3/8" diameter x 7/8" long
Weight:	9-1/2 OZ
Feeler Ball:	1/8" diameter
Measuring Range:	250 axis offset
Capacity:	Internal 5/32" to 4-1/4" dia. External 0 to 4-1/4" dia.
Speed:	Spindle rotation up to 800RPM (Exceeding this speed is not recommended)
Locating Accuracy:	0.0002" of true center

Includes:
- Restraining rod
- Center point feeler
- 2" straight feeler
- 4" straight feeler
- 6" straight feeler
- 2" curved feeler
- 4" curved feeler
- 6" curved feeler

Pro-Series CENTERING INDICATORS

- Provides a simplified method of centering a workpiece or fixture on horizontal or vertical machines, internal or external diameters. Face of indicator remains stationary in any desired position while the machine spindle rotates, leaving the operator with both hands free to accurately position the machine table.
- Length: 6-7/8", Shank Dia.: 3/8", Feeler Dia.: 1/8".
- Locating accuracy within .0002" of true center.
- Operating speed not to exceed 800 RPM.
- Capacity: 5/32"-12" internal, up to 12" external.
- Fitted wood case.

HHIP PRO-SERIES



Kit Includes:
3 ID Feeler: 2, 3 & 4" long
3 OD Feeler: 2, 3, & 4" long
1 Center Locating Feeler



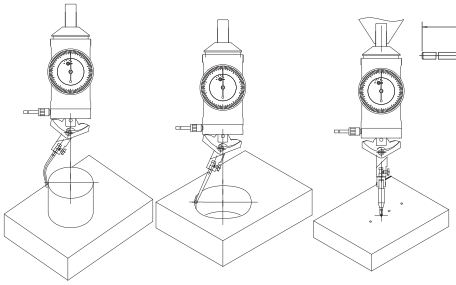
INCH
0.0005" Graduation
4400-0120

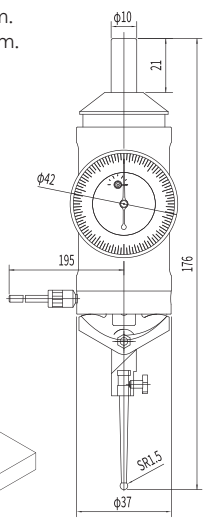
METRIC
0.01mm Graduation
4400-0121

Dasqua® CENTERING INDICATORS

- Use this indicator to quickly center work pieces or fixtures on your bore and milling set-ups.
- Determining the centers of bores and shafts.
- Sturdy metal housing suitable for workshop.
- Internal or external centering.
- Operates at any angle from vertical to horizontal without a change.
- The shank is 10mm diameter and 20mm long.
- The indicator is 180mm long with 45mm straight feeler.
- Internal diameter is from 4mm to 300mm.
- External diameter is from 0mm to 300mm.
- Straight feeler length: 45mm/l00mm/154mm.
- Curved feeler length: 46mm/100mm/154mm.
- Center point feeler length: 52.5mm.

Kit Includes:
- 3 internal & external feelers.
- Restraining arm
- Center point finder
- Wrench
- Fitted case





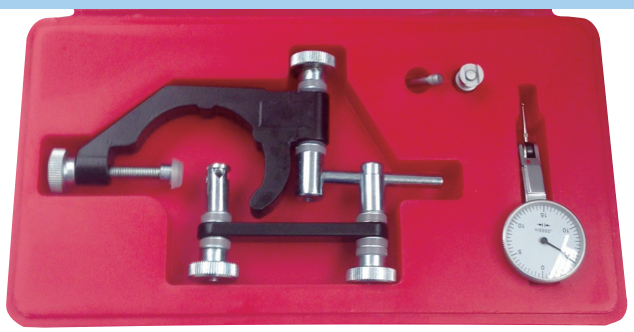


0.0005"/0.01mm GRADUATION

Item#	Range	Graduation	Accuracy
5711-6100	0-0.15"	0.0005"	0.001"
5712-1100	0-3mm	0.01mm	0.02mm

INDICATOR ACCESSORIES

PRECISION TEST INDICATOR HOLDER & KIT



0~0.03" TEST INDICATOR

- Resolution: 0.0005" .
- Precision pivot bearing.
- 0.098" Contact point.
- Satin chrome finish.
- Dovetail mount top, back, & front.
- 2 stems(5/32" & 3/8").
- Jeweled movements.
- Automatic reversing.

UNIVERSAL TEST INDICATOR HOLDER

- 1-7/8" Clamping diameter.
- Length from center of clamping bracket to indicator: 6-1/2".
- Fits Bridgeport "J" head.

Test Indicator Kit
4400–0013
FITTED DURABLE PLASTIC CASE

Holder Only
4401–0401

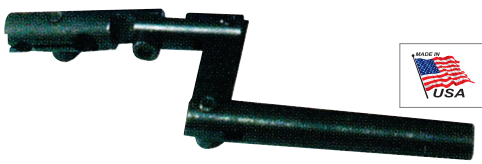


Indicator Not Included

AXIAL SUPPORT BRACKET

- Used for mounting indicators with dovetails or rods
- 3/8" diameter body for secure support
- Multi-position, 360° capability
- .375" shank
- Constant tension
- 6.500 radial sweep

4401–0740



MADE IN USA **4401–0741**

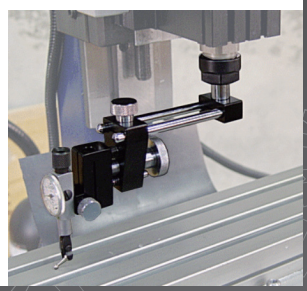
ZERO-SET UNIVERSAL KIT FOR TEST INDICATORS

- Designed for test indicator with dovetails or 1/4" post and functions as a quick and practical work positioning device
- Setting up a workpiece before machining, or aligning the center of a round workpiece in relation to the cutting head, takes virtually no time with "Zero-Set".
- The hardened clamping post consists of three O.D.'s (1/4, 3/8 & 1/2")
- It reaches anywhere within a 8" diameter and fine-adjusts about 3/8" with knob.

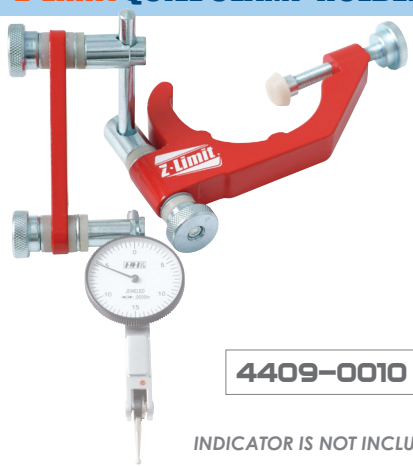


Indicator Not Included

4401–0423



Z-Limit QUILL CLAMP HOLDER



- **Manufactured and inspected at world class factory that produces highest quality European brands.**
- Fits Bridgeport type milling machines.
- Fits milling machines with 1-7/8" dia. quills.
- Clamps directly onto machine quill.
- Will not disturb working tool in the machine.

4409–0010

INDICATOR IS NOT INCLUDED

Z-Limit ULTRA-SERIES

Dasqua® UNIVERSAL TEST INDICATOR HOLDER -AXIAL SUPPORT

The Dasqua Universal Test Indicator Axial Support provides precise and stable positioning for test indicators. Designed for versatility, it offers fine adjustment capabilities and multiple mounting options, making it suitable for a wide range of applications. Its robust construction ensures durability and reliability, while its design enhances stability and accuracy. An essential tool for professionals requiring precise measurement and alignment.

- **Universal Axial Support** – Compatible with most test indicators.
- **Precision Adjustment** – Fine-tune positioning for accurate readings.
- **Versatile Mounting** – Multiple mounting options for diverse applications.
- **Robust Construction** – Durable materials for long-lasting use.
- **Enhanced Stability** – Provides secure and stable indicator placement.
- **Improved Accuracy** – Minimizes indicator movement for precise measurements.

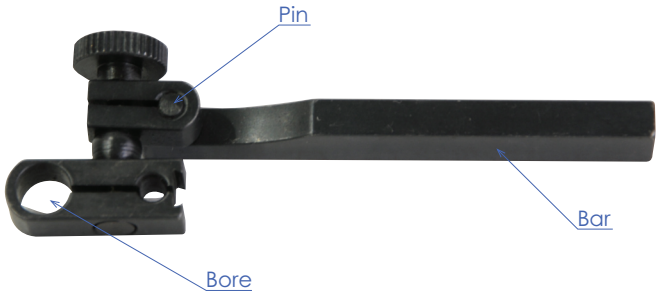


5221–3050



SWIVEL HEAD CLAMPING HOLDERS

- Rigid steel construction.
- Dovetail groove for clamping test indicators.
- Bores for indicators' stem.



Item#	Bore	Bar	Pin
4401-0450*	5/32 & 1/4"	1/2 x 1/4 x 3"	1/4
4401-0453	5/32 & 3/8"	1/2 x 1/4 x 3"	1/4
4401-0456	1/4 & 3/8"	1/2 x 1/4 x 3"	1/4

* Limited Supply

DOVETAIL INDICATOR CLAMPS

- 3" overall length
- For use with all test indicators and probes with dovetails
- Locks in four 90° quadrants



Item#	Dia. of Rod
4401-0426	1/4"
4401-0427	6mm
4401-0428	8mm

INDICATOR GRIP HOLDER

- Made for test indicator with 5/32" stem.
- Rod side dimension (dia.x L): 1/4"x 1-1/2".



4401–0119

ADAPTER CLAMP

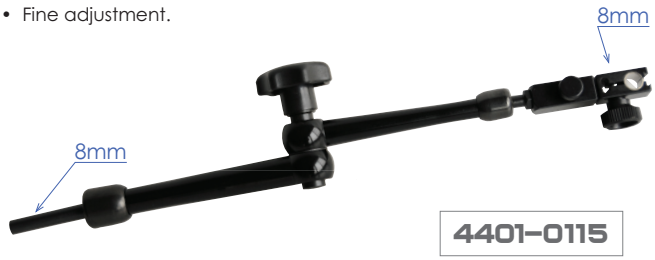
- Adapter for mag. base, indicator stems and connect rods.
- Rigid steel construction.
- Bore Diameter: 5/32, 1/4 & 1/4".



4401–0123

UNIVERSAL ARM FOR INDICATORS

- Rigid universal steel arm.
- Indicator stem hole: 8mm
- Unique central locking mechanism.
- Dovetail groove for clamping test indicator.
- Fine adjustment.
- Arm length 11"
- Rod side dimension (dia.x L): 8mmx40mm

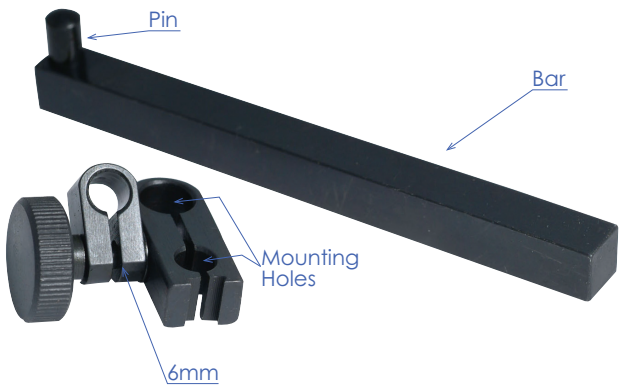


4401–0115

HEIGHT GAGE ATTACHMENT CLAMP SET

The most popular indicator clamp. Fits all indicators equipped with rods or dovetails.

Kit includes:
Clamp with dovetail and mounting holes



Item#	Mounting Holes	Bar	Pin
4401-0419	5/32 & 1/4"	5/16 x 5/16 x 3"	6mm
4401-0420	6 & 8 mm	9 x 9 x 75mm	6mm
4401-0421	7/32 & 3/8"	3/8 X 3/8 x 4"	6mm

DOVETAIL CLAMPS

- Rigid steel construction
- Dovetail groove for clamping test indicators
- Bores for indicators' stem



Item#	Bore	Clamp Hole
4401-0466	6 & 8mm	6mm
4401-0468	5/32 & 3/8"	1/4"
4401-0469	1/4 & 3/8"	4mm
4401-0470*	5/32 & 1/4"	5/32"

* Limited Supply

CALIPERS & DIVIDERS

Pro-Series SPRING DIVIDERS



- Easy adjustment over entire range.
- Balanced legs, uniform tension.
- Polished natural steel finish.

Item#	Size
4901-0065	4"
4901-0066	6"
4901-0067	8"
4901-0068	10"
4901-0069	12"

Pro-Series INSIDE CALIPERS

- Easy adjustment over entire range.
- Balanced legs, uniform tension.
- Polished natural steel finish.

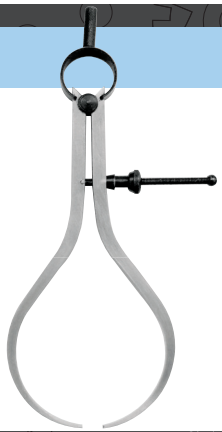
Item#	Size
4901-0070	6"
4901-0071	8"
4901-0072	12"



Pro-Series OUTSIDE CALIPERS

- Easy adjustment over entire range.
- Balanced legs, uniform tension.
- Polished natural steel finish.

Item#	Size
4901-0073	6"
4901-0074	8"
4901-0075	12"



Pro-Series 3 PC SPRING CALIPER SETS

- Easy adjustment over entire range.
- Balanced legs, uniform tension.
- Carbon steel legs with ground tips hardened to HRC 35.
- Chrome plated fittings and black finished legs.



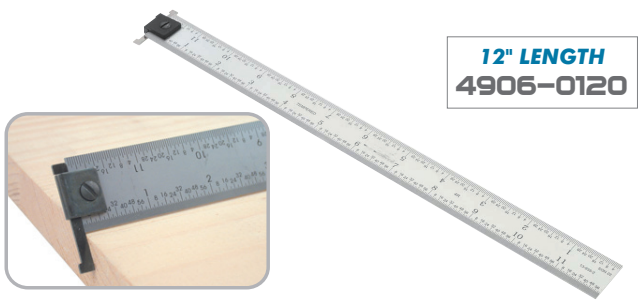
Set Includes:
Spring Divider,
Inside Caliper
& Outside Caliper

Item#	Size
4906-0071	4"
4906-0073	8"
4906-0074	10"

12" MACHINIST ADJUSTABLE HOOK RULER

- Manufactured from high quality stainless steel
- Graduations are properly etched for acurate measurements.
- Packed in soft plastic sleeve.
- **4R Readings: 1/8", 1/16", 1/32" & 1/64"**

NEW



12" LENGTH
4906-0120

6 PC SPRING CALIPERS & RULE MEASURING KIT

SPIRNG CALIPERS
- Easy adjustment over entire range.
- Balanced legs, uniform tension.
- Polished natural steel finish.

BRASS VERNIER CALIPER
- Made of solid brass
- Inch/mm reading

Brass Vernier



4"/100mm

Set Includes: one of each
- Spring Divider 6"
- Inside Caliper 6"
- Outside Caliper 6"
- Brass Vernier Caliper 4"/100mm
- Pocket rule 6"/150mm
- Carbide Tipped Scriber

6 PC KIT
4906-0106

POCKET RULE
- Made of stainless steel
- Inch/mm reading



Divider 6"/150mm | Inside 6"/150mm | Outside 6"/150mm



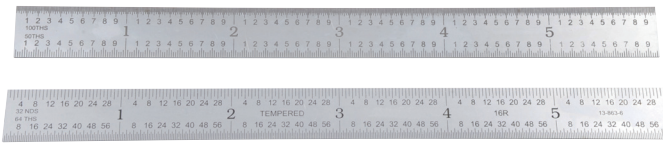
Carbide Scriber



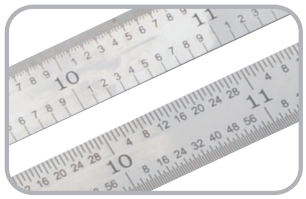
Pocket Rule 6"/150mm

FLEX & RIGID RULES

- **Premium Material** – Made from the finest steel for durability and long-lasting performance.
- **Fully Tempered** – Provides strength and resilience, preventing bending or breaking under normal use.
- **Chrome Finish** – Corrosion-resistant coating ensures longevity and a professional appearance.
- **Flexible & Rigid Options** – Flex and rigid options allow users to choose the best tool for their specific needs, whether they require flexibility for curved surfaces or a rigid rule for straight-line precision.
- **Precision Etched Markings** – Enhances accuracy and readability for precise measurements.



Style	Graduation
3R	32nds & 64ths, 10ths & 50ths
4R	8ths & 16ths, 32nds & 64ths
5R	32nds & 64ths, 10ths & 100ths
16R	32nds & 64ths, 50ths & 100ths
E/M	32nds & 64ths, mm & .5mm



RIGID

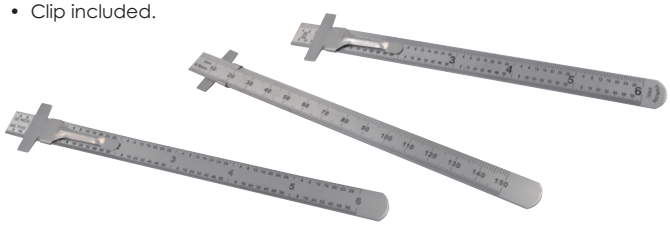
Item#	Style	Length	Width
4906-0201	4R	6"	3/4"
4906-0203	4R	8"	3/4"
4906-0202	4R	12"	1"
4906-0204	4R	24"	1-1/8"
4906-0206	4R	36"	1-1/8"
4906-0208	4R	48"	1-1/8"
4906-0236	E/M	6"	3/4"
4906-0237	E/M	8"	3/4"
4906-0238	E/M	12"	1"
4906-0240	E/M	24"	1-1/8"

FLEX

HHIP Item#	Style	Length	Width
4906-0161	3R	6"	1/2"
4906-0162	3R	8"	1/2"
4906-0163	3R	12"	1/2"
4906-0164	3R	24"	3/4"
4906-0165	3R	36"	3/4"
4906-0131	4R	6"	1/2"
4906-0133	4R	8"	1/2"
4906-0132	4R	12"	1/2"
4906-0134	4R	24"	3/4"
4906-0136	4R	36"	3/4"
4906-0140	5R	6"	1/2"
4906-0141	5R	8"	1/2"
4906-0142	5R	12"	1/2"
4906-0144	5R	24"	3/4"
4906-0146	5R	36"	3/4"

POCKET STAINLESS STEEL RULES

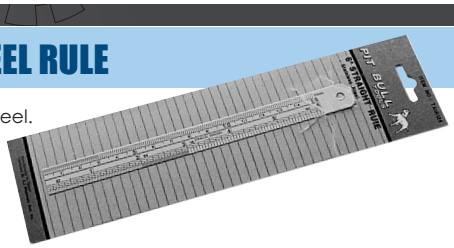
- Made from hardened stainless steel.
- Graduations are properly etched for accurae measurements.
- Packed in attractive PVC jacket.
- Clip included.



Item#	Length x Width	Reading
7006-0001	6 x 15/32"	32nds, 64ths & Decimal Equiv.
7006-0003	6 x 15/32"	E/M-32nds, 64ths, mm & 0.5mm

STAINLESS STEEL RULE

- Hardened stainless steel.
- Flexible.

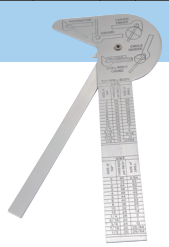


Item#	Size	Reading
7019-0001	6"/15cm	3R-16ths, 32nd, 1mm

MULTI-USE RULE & GAUGE

- This indispensable pocket tool performs six separate functions: drill point gauge, bevel protractor, circle center finder, circle divider, tap and drill table and 4" rule with etched graduations 0 in 64ths and millimeters.





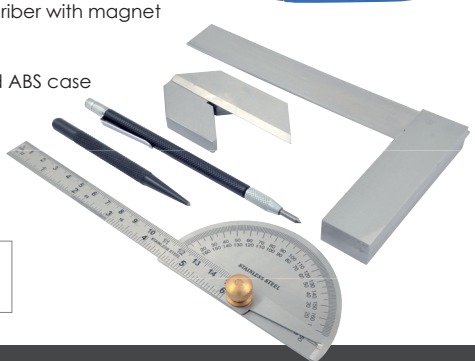
4906-0100

5 PC MEASURING & MARKING SET

- Made of hardend tool steel.
- **Set consists of one of each:**
  - Machinest Square: 6" (6" Blade x 4" Beam)
  - Center Finder Square: 1-1/2"
  - Round Head Protractor
  - Carbide Tipped Scriber with magnet other side.
  - Center Punch: 4"
- Complete in a fitted ABS case



Limited Supply!

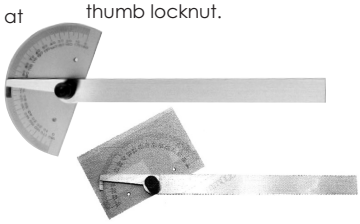


5 PC SET
4906-0105

STEEL PROTRACTORS

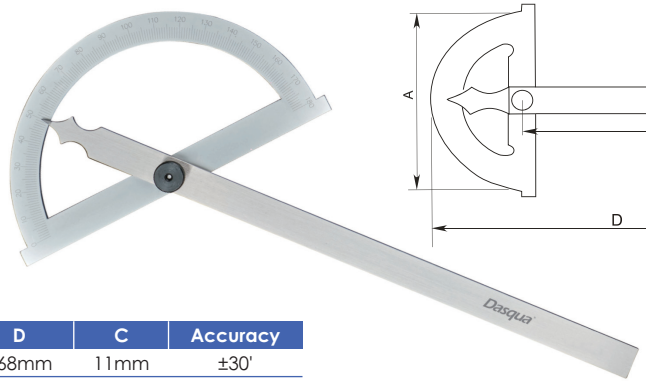
- Measures angles from 0 to 180°.
- Used for drawing radial lines, transferring angles and setting bevels.
- Blade secured firmly by lock nut at any angle.
- Semi-circle Head Radius: 2"
- Made of tempered steel with satin chrome finish.
- Features 6" arm and knurled thumb locknut.

Item #	Head Shape
4901-0005	Round
4901-0006	Square



Dasqua® 0-180° OPEN HEAD PROTRACTOR

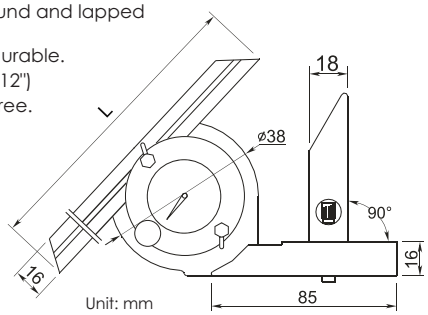
- Multi-purpose, engineering drawing, angle measurement, architectural design, woodworking, length measurement, etc.
- Packaged in a beautiful and durable leather bag.
- Measures angles from 0-180°
- Useful and accurate tool for setting bevels, transferring angles, and small squaring tasks.
- Blade secured firmly at any angle by a lock joint and knurled screw.
- Satin chrome finish for easy reading and resistance to rust.
- Hardened stainless steel.



Item#	Range	Graduation	Size (AxB)	D	C	Accuracy
1012-1005	0-180°	1°	80x120mm	168mm	11mm	±30'

Dasqua® 0-360° UNIVERSAL DIAL PROTRACTOR

- Made of stainless steel.
- With a dial for easy and accurate reading.
- Measuring surface hardened, ground and lapped ensures smooth movement.
- Satin chrome finish, anti-rust and durable.
- Provided with three blades (6", 8", 12")
- Indicator pointer shows each degree.
- Packed in fitted case.

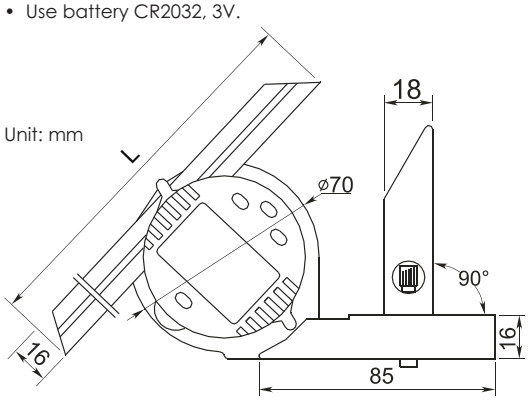




Item#	Range	Graduation	L	Accuracy
1031-2010	0-360°	5'	6"/150mm, 8"/200mm, 12"/300mm	±5'

Dasqua® 0-360° UNIVERSAL DIGITAL ELECTRONIC PROTRACTOR

- High contact display.
- All measuring face are hardened, ground and lapped.
- Hardened stainless steel.
- Fine adjustment.
- Use battery CR2032, 3V.



Data Output



REPLACEMENT BATTERY (ITEM #4102-0032)

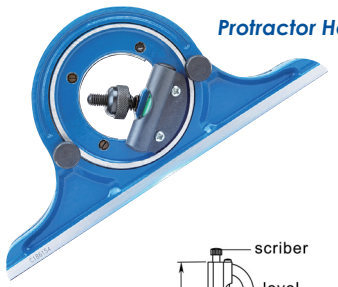
Item#	Range	Reading	L	Accuracy
1021-2005	0-360°	1'	6"/150mm, 8"/200mm, 12"/300mm	±5'

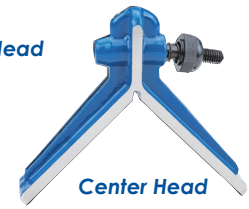
Dasqua® 12" 4 PC COMBINATION SQUARE SET -4R GRADUATION

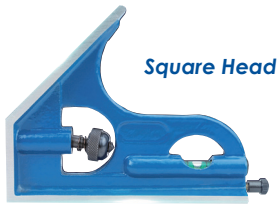
- This premium set is used primarily for setups, layouts, checking heights and depths, and angle setups.
- Set includes square head, center head, protractor and blade.
- Premium steel cast iron square, center, and protractor heads with powder-coated non-ground surfaces for durability.
- Double indexed protractor is graduated 180° in both directions.
- 12" 4R blade graduated in 8ths, 16ths, 32nds, 64ths increments for precise measurements.
- Easy-to-read satin chrome finished, hardened and tempered stainless steel blade for clear visibility and long-lasting performance.
- Powder-coated process guaranteeing high surface durability
- Integrated level and scriber point for added functionality.
- Accuracy is +/- 15'.
- Supplied in a sturdy, fitted plastic case.

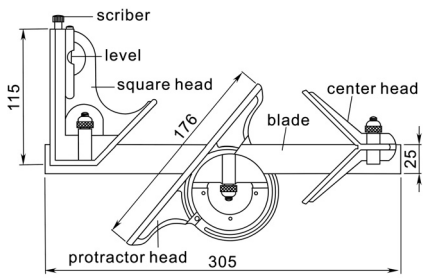










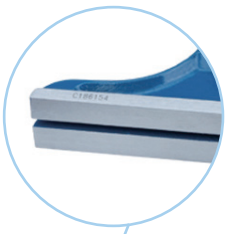


Item#	Rule	Measuring Range	Graduation
1012-2020	12"	0-180°	1/8&1/32 Inch, 1/16 &1/64 Inch

Dasqua® 12" 4 PC COMBINATION SQUARE SET -E/M (INCH/MM) GRADUATION

- Made by procoated mold and no blister on the surface.
- Case included.

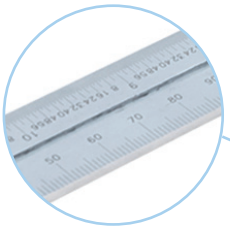
1/64" / 1.0mm & 1/32" / 0.5mm GRADUATION



- Low surface roughness and high accuracy with surfaces precisely ground.



- Powder-coated process guaranteeing high surface durability.



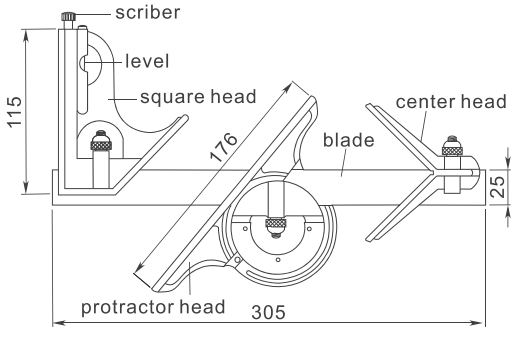


0-180°
300mm/12" Blade
1012-2010

- Distinct lines and figures against the satin chrome finish making reading easily.



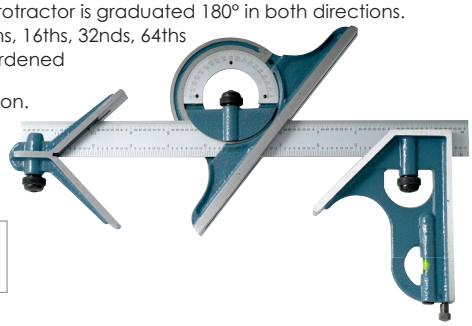
- Strong and elegant packing.



COMBINATION & STEEL SQUARES

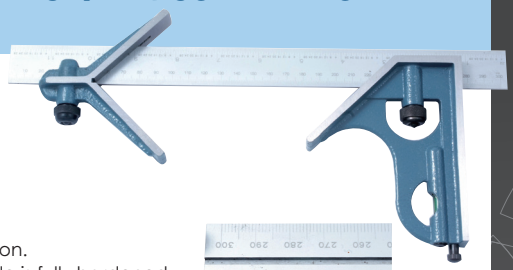
4 PC 12" E/M (INCH/MM) COMBINATION SQUARE SET

- Set includes: square head, center head, protractor and blade.
- Double indexed protractor is graduated 180° in both directions.
- Graduation: 4R-8ths, 16ths, 32nds, 64ths
- Blade made of hardened stainless steel.
- Microfine graduation.
- Accuracy ±15'.



0~12" Blade
4901-0003

3 PC 12" E/M (INCH/MM) COMBINATION SQUARE SET



0~12" Blade
4901-0314

- Microfine graduation.
- Easy-to-ready blade is fully hardened and tempered
- Square head has level and scriber point
- Graduation: E/M 0.5mm & 32nds, 1.0mm & 64ths.
- Blade has satin chrome finish.



MACHINIST STEEL SQUARES & SETS

- Made of high grade tool steel & hardened spring steel, blades have a ground finish.
- Accurate right angles both inside and outside.
- Precision ground.
- Strictly made in accordance to DIN 875.

Accuracy: 0.001"

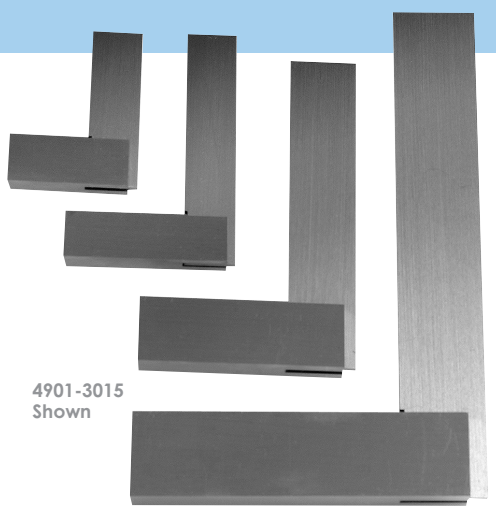
4 PC SET
2, 3, 4 & 6"
4901-0014

4 PC SET
4, 6, 9 & 12"
4901-3015



4901-0014 Shown

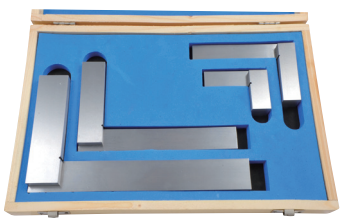
Item#	Blade Length	Beam Length
4906-0003	3	2.5
4906-0004	4	3.0
4906-0006	6	4.0
4906-0008	8	5.0
4906-0009	9	6.0
4906-0012	12	8.0



4901-3015 Shown

4 PC. ENGINEER'S STEEL SQUARE SETS

- **Precision Engineer's Square Set** – Includes squares for accurate layout, inspection, and setup work.
- **Hardened Spring Steel Blades** – Precision ground for durability, long-term accuracy, and resistance to wear.
- **True Inside & Outside Angles** – Accurate right angles on both inside and outside faces for versatile measuring tasks.
- **Beams Hardened & Ground** – Ensures consistent squareness and dependable performance in shop environments.
- **Fitted Storage Case Included** – Keeps squares organized, protected, and ready for transport or storage.



4 PC SET
2, 3, 4 & 6"
4906-0018



Dimensions

Blade Length	Beam Length
2"	2"
4"	3"
6"	4"
8"	5"
9"	6"
12"	8"

4 PC SET
2, 4 , 6 & 8"
4906-0019

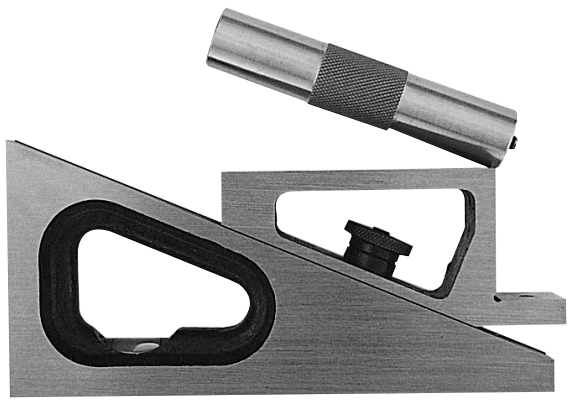
4 PC SET
4, 6, 9 & 12"
4906-0020

PLANER AND SHAPER GAGE

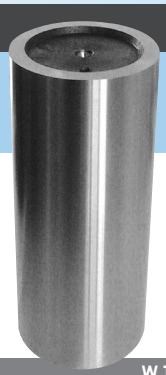
- Hardened and ground forged steel.
- Ground, flat and V ways assure accuracy.
- Both sides are ground square with working edges.
- Built-in precision level.
- Base size: 5-1/4" long and 3/4" wide.
- Includes 3" extension rod.
- Supplied in wood case.

Limited Supply!

Max. Range 6-1/4"
3402-0025



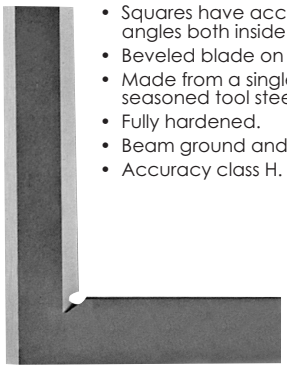
PRECISION CYLINDRICAL SQUARES



- Used for checking squares, height gages and many instruments.
- Easy to access from any angle around it.
- Hardened and both ends are lapped.
- Absolute 90° angle.

Item#	Dimension Dia.	Height	Squareness	W.T. (lbs.)
4901-2601	3"	6"	± 0.00010"	13
4901-2602	4"	12"	± 0.00015"	45

PRECISION BEVEL EDGE SQUARES



- Squares have accurate right angles both inside and outside.
- Beveled blade on both sides.
- Made from a single piece of fully seasoned tool steel.
- Fully hardened.
- Beam ground and lapped.
- Accuracy class H.

4 x 2-1/2"
4901-0022

6 x 4"
4901-0023

ROUND BAR CENTER FINDER

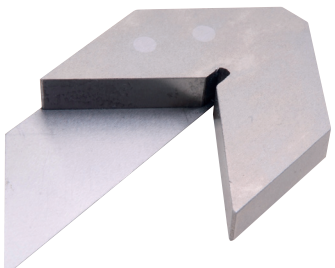
- Very useful to find the centers on any round object.
- Can be held in collets or drill chucks.
- Shank: 3/8"

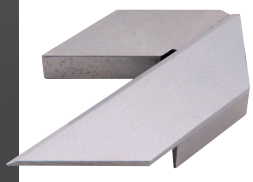
4406-0027



MACHINISTS CENTER SQUARES

- For rapid location of exact center of round, square and octagnal parts.
- Made from precision gound tool steel.
- Hardened and tempered blade.
- To execute place the item between the center square. Scribe different lines on the workpiece each time changing its position. Center of the scribed lines will give the accurate center of the work piece.





Range:
Up to 1-1/2" Diameter
4901-0351

Range:
Up to 3" Diameter
4901-0354

STEEL SURFACE GAGES

- Fine adjustment.
- Retractable pins in base for working on flat surfaces.
- Bottom V-groove ground for cylindrical works.
- Spindle can be adjustable to any angle above or below base.
- Scriber head hardened has spring control.
- Base fully hardened throughout.
- Two posts included.



Item#	Post Length
4401-2012	4 & 7"
4401-2014	9 & 12"

90° WIDE BASE SQUARES



- Used for checking squares.
- Wide base for easy free standing.
- Hardened and both ends are lapped.
- Absolute 90° angle.

Item#	Blade Length	Beam Length
4901-1213*	3"	2"
4901-1214*	4"	3"
4901-1216*	6"	4"
4901-1218	8"	5"

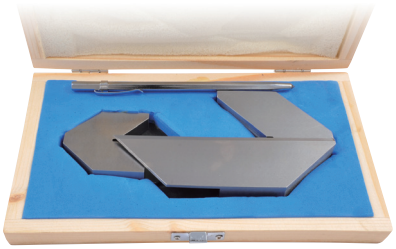
* Limited Supply

.0002" SQUARENESS

3 PC. CENTER FINDER SQUARES & SCRIBER KIT

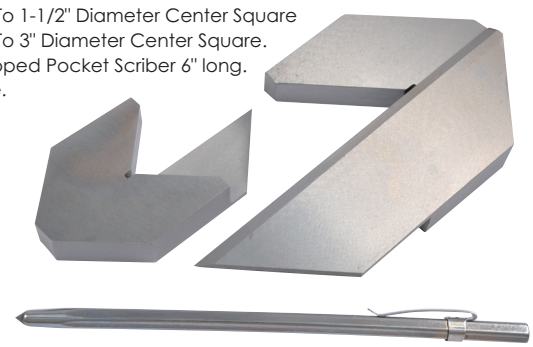
- **Rapid, Accurate Center Finding** – Quickly locates the exact center of round, square, and octagonal parts for precise layout work.
- **Versatile Machining Layout Tool** – Execute precise center squares and scribe multiple reference lines without repositioning the workpiece.
- **Hardened & Tempered Steel Construction** – Made from precision ground tool steel for durability, accuracy, and long service life.
- **Carbide-Tipped Scriber Included** – 6" carbide-tipped scriber delivers clean, sharp marking on metal surfaces.

3 PC. SET
4901-0356



Kit Includes:

- Range Up To 1-1/2" Diameter Center Square
- Range Up To 3" Diameter Center Square.
- Carbide Tipped Pocket Scriber 6" long.
- Fitted Case.

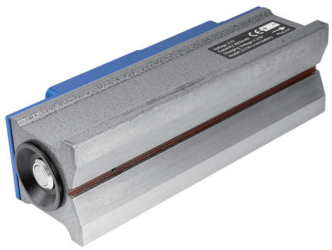


Dasqua® 6" HIGH PRECISION DIGITAL ELECTRONIC ADJUSTABLE LEVEL

- Customized professional aluminum box for extra protection.
- Metal On and Off button.
- Two modes: ABS and R.
- Multi-data recording.
- Groove bottom design, ground and round level to measure both are applicable.
- One button for zero setting.
- 2pcs of 3.7 V rechargeable batteries included.
- Unit is sealed and waterproof.
- Precision-machined groove bottom and rounded side allow accurate measurements on both flat and cylindrical surfaces.

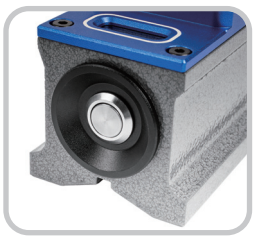
8300-1000

Sensitivity: ±0.01mm/m
Resolution: 0.001°











Dasqua® HIGH PRECISION LEVEL WITH PORTABLE DISPLAY KIT

Battery + CR2032

- The Dasqua ultra-high precision leveling device allows operators to save over 70% of the time spent on machine leveling.
- The measuring end and the handheld terminal are connected wirelessly, and the measuring data is directly displayed on the handheld terminal so that the horizontal state of the machine can be viewed anytime.
- This completely solves the problem that operators have to repeatedly check the bubble of the traditional bar-type level instrument.
- The unique network leveling function can help with improving leveling process to be more accurate and faster when completing the leveling work on large highprecision machine tools.

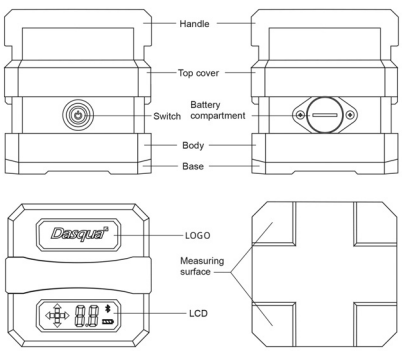
WITH PORTABLE DISPLAY











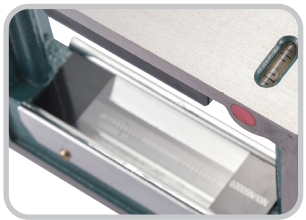


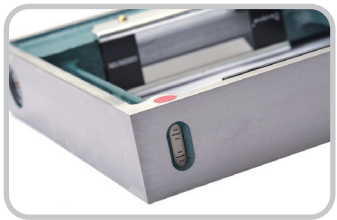
Item#	Resolution	Repetability
8300-0025	0.01mm	0.02mm/m

Dasqua® PRECISION FRAME SPIRIT LEVELS

DIN 877

- Strictly made in accordance with DIN 877.
- Used to measure the straightness and flatness of machine guide rails.
- Robust cast iron model, precision ground measuring surface ensures high accuracy.
- Base with V-groove to allow use on round bars and shafts.
- The adjustable glass buble is highly sensitive and easy to read.
- Lapped, hardened and polished stee body.









Item#	Range	Graduation
8302-0003	6x6"	0.0005"/10"
8302-0006	8x8"	0.0005"/10"
8302-0009	10x10"	0.0005"/10"
8302-0013	12x12"	0.0005"/10"

0.0005" GRADUATION

Dasqua® MASTER PRECISION LEVELS

DIN 877

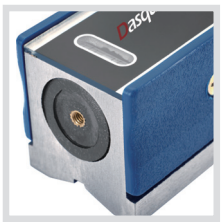
- Strictly made in accordance with DIN 877.
- Used to measure the straightness and flatness of machine guide rails.
- Robust cast iron model, precision ground measuring surface ensures high accuracy.
- Base with V-groove to allow use on round bars and shafts, cylindrical surfaces.
- Main vial and cross test vial

10 Second Accuracy!
1 Division Equals 0.0005" Per 10"



0.0005" GRADUATION





Item#	Range	Graduation
8302-0005	6"	0.0005"/10"
8302-0010	8"	0.0005"/10"
8302-0015	10"	0.0005"/10"
8302-0020	12"	0.0005"/10"

MASTER PRECISION LEVELS

- **High-Precision Sensitivity** – Ground and graduated main vial provides 0.0005" per 10" accuracy for precise leveling and alignment applications.
- **Ideal for Machine Tool Setup** – Designed for checking machine beds, surface plates, fixtures, and equipment requiring extremely accurate leveling.
- **Precision Ground Base** – Hardened and finely ground measuring surfaces ensure reliable contact and consistent measurement results.
- **Durable Cast Iron Construction** – Heavy-duty body resists distortion and provides long-term accuracy in shop and inspection environments.
- **Available in Multiple Lengths** – Offered in 4", 6", 8" and 12" sizes to accommodate a variety of machine setup and inspection applications.



Item#	Length
4901-0084	4"
4901-0086*	6"
4901-0081	8"
4901-0008	12"

0.0005" GRADUATION

* Limited Supply

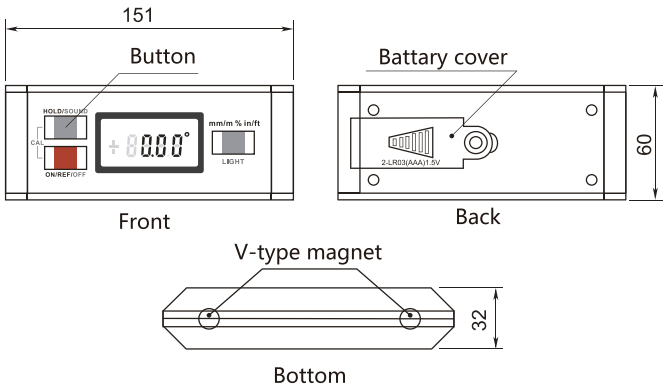
Dasqua® DIGITAL ELECTRONIC PROTRACTOR

Absolute | IP65 COOLANT & FLUID RESISTANT

- Absolute function, zero setting is unnecessary when the battery is replaced.
- Used as level and inclinometer to measure the included angle of non-continuous working surfaces.
- V-groove base with powerful embedded magnets, which secures strong attachment to the measuring surfaces (including cylindrical surface).
- Backlight function enables it to use in the dim plac.
- IP65 dust-proof and water-proof.

4" x 90°
8400-0005







SPECIFICATIONS

Range	Resolution	Accuracy
4 x 90°	0.1°	0°-90°: ±0.05° Rest of angle: ±0.15°

Dasqua® 6" DIGITAL ELECTRONIC 360° PRECISION LEVEL

Absolute | Battery 2xAAA

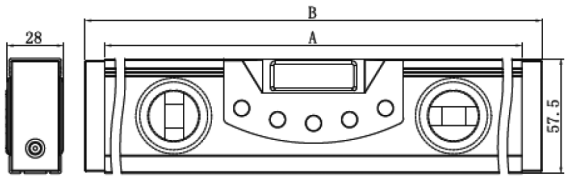
- **High-Accuracy Digital Measurement** – Measures angles through a full 4 × 90° range with 0.05° resolution for precise setup, inspection, and alignment work.
- **Absolute & Relative Measuring Modes** – Absolute function eliminates the need to reset zero after battery replacement, improving convenience and reducing setup time.
- **Magnetic V-Groove Base** – Strong built-in magnets and V-groove design securely attach to flat, round, and cylindrical surfaces including shafts, pipes, and machine components.
- **Special angle alarm and laser selection.**
- **Large Backlit Display** – Easy-to-read digital screen provides clear angle readings in bright shops or low-light working conditions while improving measurement efficiency.

NEW

6"
8301-2606



WITH MAGNETIC BASE



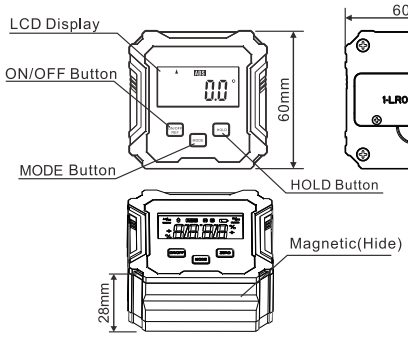
SPECIFICATIONS

Size	Measuring Range	Resolution	(mm) A	(mm) B	Accuracy
150mm / 6"	0.05°	0.05°	152.4	172.4	±2°

Dasqua® DIGITAL ELECTRONIC ANGLE GAUGE

- Temperature drift testing ensures no influence on accuracy from temperature changing, others will not do the testing
- Imported chip to ensure 0.2° accuracy
- Powerful built-in magnets on the base
- LCD Display with Backlight





8400-0020



SPECIFICATIONS:

Range	Resolution	Power	Weight	Accuracy
4 x 90°	0.05°	1x AAA battrey	4 OZ	+/- 0.2°



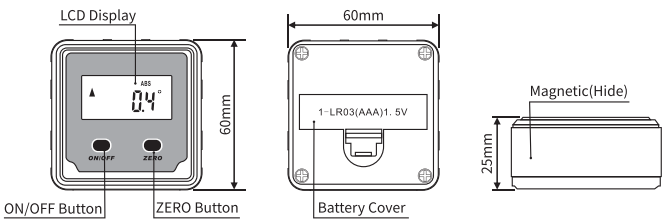


Dasqua® PROFESSIONAL DIGITAL ELECTRONIC ANGLE GAGE

- Large easy-to-read backlight LCD display.
- Absolute 0° measuring at level surface.
- Measure relative bevel.
- Permanent strong magnet on measuring faces.
- CNC machined aluminum body.



4" x 90°
8400-0010



SPECIFICATIONS

Range	Resolution	Accuracy
4 x 90°	0.1°	±0.2°

Dasqua® 180° DIGITAL ELECTRONIC GAGE WITH FLIP-OUT DISPLAY

- Flip-out tilting display.
- Ultra-precise magnetic gage sets the angle of saw blades jointer fences, bandsaw tables and drill press tables.
- Measures both absolute level and relative bevel with readings that are always visible.
- V-groove in base for round objects like pipe and drill bits.

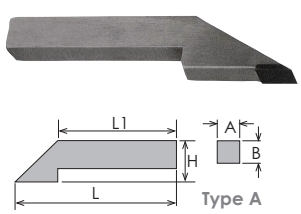
180°
8400-0000

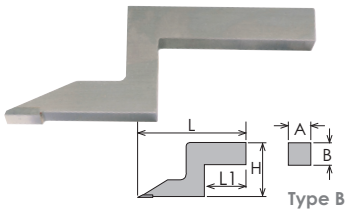


SPECIFICATIONS

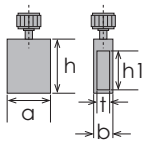
Range	Resolution	Accuracy	Repeatability	Size
±180°	0.1°	±0.1°	±0.1°	2.2x2.3x1.3"

CARBIDE SCRIBERS & CLAMP FOR HEIGHT GAGES





- **Carbide-tipped scribers provide sharp, wear-resistant marking** for accurate layout work on metal surfaces.
- **Multiple scribing styles and lengths are available** to reach difficult areas and suit a variety of measuring applications.
- **Heavy-duty height gage clamp securely holds scribers** for stable, repeatable marking and improved setup accuracy.





Unit: Inch

Scriber Item#	Type	L	L1	H	A	B
4300-0016	A	2.15	1.3	0.5	0.23	0.33
4300-0035	B	1.7	0.8	1.3	0.23	0.32
4300-0126	B	3.2	1.6	1.2	0.35	0.35
3001-4105	B	2.52	1.1	1.9	0.20	0.31
3110-4120	B	3.15	1.4	1.6	0.35	0.35
3110-4125*	B	8.0	4.3	1.9	0.39	0.63
3130-4125	A	4.13	2.6	1.4	0.39	0.47
3130-4130	B	4.33	2.6	1.5	0.39	0.59
3130-4103	B	2.57	1.6	1.2	0.25	0.50

* Limited Supply

Unit: Inch

Clamp Item#	h	a	h1	b	t
4300-0151	1.34	0.79	0.80	0.59	0.355

DIAL HEIGHT GAGES



- Made of high quality stainless steel and satin chrome finish.
- Carbide tipped scriber for longer life.
- Fine feed adjustment.
- Positive lock screw.
- Fitted case.



0.001" GRADUATION

Item#	Range
4300-0028	0~6"
4300-0029*	0~8"
4300-0030	0~12"

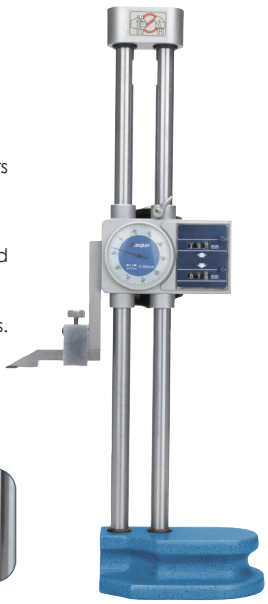
* Limited Supply



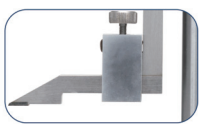
Replacement Scriber (Item# 4300-0035) (see above for dimensions)

Dasqua® DOUBLE-BEAM DIAL HEIGHT GAGE

- Provided with a dial and two digit counters for more accurate reading.
- Double-beam ensures higher measuring accuracy.
- One counter reads in the plus direction and the other reads in the minus direction.
- Feed wheel on the back.
- Carbide tipped scriber for sharp, clean lines.
- Both counters and dial can be re-zeroed at any scriber position.
- Base hardened, ground and lapped for maximum flatness.
- Dustproof shield optional.







Item#	Range	Resolution	Graduation
3222-4205	0-12"	0.001"	0.1"

Dasqua® 0-6" DIGITAL ELECTRONIC HEIGHT GAGE WITH MAG BASE

- **Precision Digital Measurement** – Measures from 0-6" (0-150mm) with 0.0005" / 0.01mm / 1/128" resolution for accurate layout and inspection work.
- **Strong Magnetic Base** – Anodized aluminum base with powerful integrated magnets ensures stable positioning on steel surfaces during measurement.
- **Large Easy-to-Read LCD Display** – Clear digital readout allows fast readings in shop or inspection environments.
- **Durable Construction** – Features a hardened stainless steel scale designed for long-term accuracy and industrial use.
- **Inch / Metric / Fraction Conversion** – Easily switch between inch, metric and fraction measurements at the touch of a button.
- Great for machinists, tool & die makers, quality control inspectors, fabricators and welders.

INCH/METRIC/FRACTION

0-6" Range
3130-4005



SPECIFICATIONS

Range	Resolution	Accuracy
0-6"/0-150mm	0.0005"/0.01 mm/1/128"	0.0015"/0.03 mm

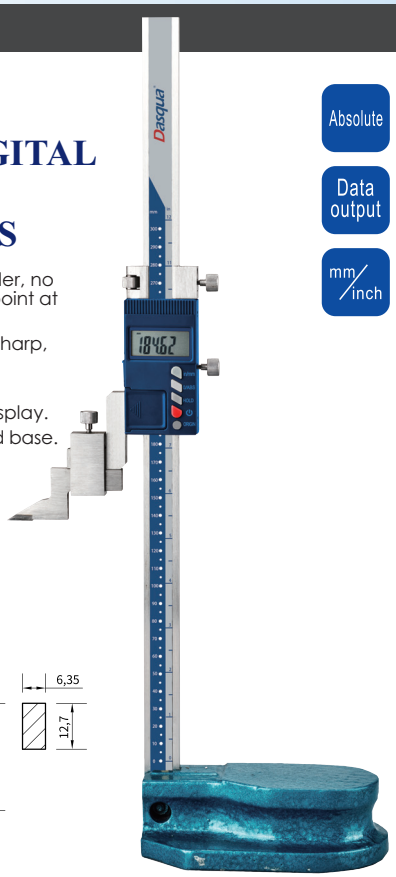


Dasqua®

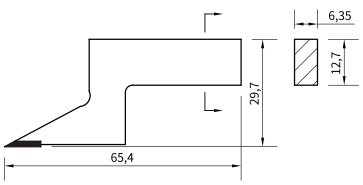
ABSOLUTE DIGITAL ELECTRONIC HEIGHT GAGES

Absolute | Data output | mm/inch

- Built-in absolute liner encoder, no need to set the reference point at every power-on.
- Carbide tipped scriber for sharp, clean lines.
- SPC data output.
- Large, easy-to-read LCD display.
- Rigid, heavy duty beam and base.
- Made of stainless steel.



INCH/METRIC 0.0005"/ 0.01MM GRADUATION



Replacement Scriber for 4300-0124 (Item# 4300-0126)
(see page 79 for dimensions)

Item#	Range	Resolution	Accuracy
3130-8115	0-12"/0-300mm	0.0005"/0.01mm	±0.04"
4300-0124	0-24"/0-600mm	0.0005"/0.01mm	±0.025"

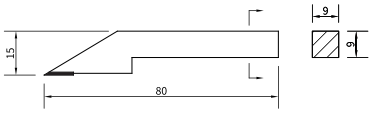
Dasqua®

DIGITAL ELECTRONIC DOUBLE-BEAM HEIGHT GAGE

- Heavy duty construction for industry use.
- Large LCD display.
- Zero-setting at any position.
- Double stainless beams assure high accuracy.
- Base is hardened, ground and lapped for maximum flatness.
- Carbide tipped scriber for sharp, clean lines.
- On/Off switch, ABS/INC switchable and hold function.
- Micro-adjustable wheel for easy head displacement/precision positioning.







INCH/METRIC 0.0005"/0.01MM GRADUATION

Item#	Range	Accuracy
3230-8105	0-12"/0-300mm	+/- 0.002"/0.04mm

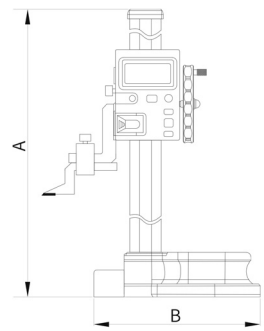


Dasqua®

DIGITAL ELECTRONIC HEIGHT GAGES - With Wheel

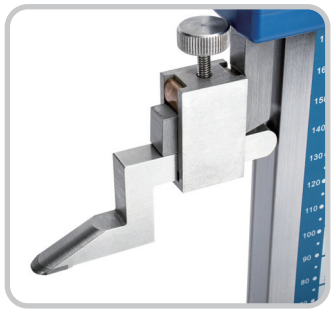
IP54 COOLANT&FLUID RESISTANT | Battery + CR2032 | mm/in | Data output

- **Precision Digital Height Measurement** – Designed for accurate height, step, and scribing measurements in inspection and machining environments.
- **Stainless Steel Beam Construction** – Durable stainless steel beam ensures long service life and resistance to wear in daily shop use.
- **Fine Adjustment Wheel for Control** – Integrated hand wheel allows smooth, precise positioning for repeatable and accurate measurements.
- **Clear Digital Readout** – Large LCD screen provides fast, easy reading with inch/metric conversion at the push of a button.
- **Stable Heavy-Duty Base** – Newly designed base improves stability during measurement and scribing operations.
- **Carbide-Tipped Scriber** – Produces sharp, clean layout lines on metal surfaces.
- **IP54 Rated Protection** – Resistant to dust and splashing coolant for dependable performance in shop environments.
- **Data Output Capability** – Supports data output for quality control documentation and inspection reporting.



INCH/METRIC





Item#	Range	Graduation	Accuracy	mm A	mm B
3530-0005	0-12"/0-300mm	0.0005"/ 0.01mm	±0.04	492	190
3530-0010	0-24"/0-600mm	0.0005"/0.01mm	±0.05	796	190

GRANITE PLATES & STANDS

BLACK GRANITE SURFACE PLATES

Granite surface plates provide an unmatched level of flatness for accurate measurement, inspection, and assembly across various applications.

- Meet Federal Specifications GGG-P-463C.
- Inspected for accuracy using an autocollimator.

Advantages of Granite

- **Incredibly Flat:** Precision ground for accuracy.
- **Durable and Stable:** Harder than steel, non-magnetic, and resistant to wear.
- **Versatile:** Ideal for:
  - **Machinists and Engineers:** Measuring, inspecting, and calibrating tools.
  - **Quality Control:** Ensuring accuracy in manufacturing processes.
  - **DIY Enthusiasts:** Woodworking, metalworking, jewelry making, leather crafting, and more.



Grade A = Grade 00
Grade B = Grade 0

INCLUDES CERTIFICATE OF INSPECTION. NOT NIST TRACEABLE

****Please let us know if you require calibration****

Tool Room Grade (A/00)

The highest standard for flatness. This is perfect for the most demanding applications where precision is paramount, such as:

- **High-precision inspection:** Ensuring the accuracy of critical components and tools.
- **Gage calibration:** Verifying the accuracy of measuring instruments.
- **Quality control:** Maintaining strict quality standards in manufacturing processes.

Shop Grade (B/1)

A practical and economical choice for everyday workshop tasks. This grade is well-suited for:

- **General workshop use:** Providing a reliable surface for various tasks.
- **Assembly:** Ensuring accurate alignment and fit of components.
- **Production checking:** Verifying dimensions and tolerances during manufacturing.
- **Hobbyist projects:** Providing a stable and accurate surface for DIY tasks.

Grade: A • Ledge: 0

Item#	Size	Accuracy	Wt. (lbs)
4401-1822	12 x 12 x 3"	±.000050"	53
4401-1812	18 x 12 x 3"	±.000050"	80
4401-1826	18 x 18 x 3"	±.000075"	116
4401-2418	24 x 18 x 3"	±.000075"	150
4401-1830	24 x 24 x 4"	±.00008"	267
4401-3624	36 x 24 x 4"	±.0001"	495
4401-4836	48 x 36 x 6"	±.0002"	1200

Grade: B • Ledge: 0

Item#	Size	Accuracy	Wt. (lbs)
4401-1596	6 x 6 x 2"	±.0001"	10
4401-1597	6 x 8 x 2"	±.0001"	12
4401-1598	12 x 8 x 2"	±.0001"	20
4401-1599	12 x 9 x 2"	±.0001"	26
4401-0011	12 x 9 x 3"	±.0001"	40
4401-1842	12 x 12 x 3"	±.0001"	53
4401-0012	18 x 12 x 3"	±.0001"	80
4401-1846	18 x 18 x 3"	±.00015"	116
4401-0013	24 x 18 x 3"	±.00015"	150
4401-1850	24 x 24 x 4"	±.0018"	267
4401-0014	36 x 24 x 4"	±.0002"	495
4401-1604	48 x 36 x 6"	±.0004"	1200
4401-1607	48 x 72 x 6"	±.0004"	2480

GRANITE SURFACE PLATE STANDS

- Overall working height: 36"
- Made of heavy-gauge steel with durable baked enamel finish.
- Assembly required.
- Stand comes with leveling screws







For 0 Ledge

Item#	For Plate Size	Wt. (lbs)
4401-1301	24 x 18"	64
4401-1401	36 x 24"	82
4401-1602	48 x 36"	126
4401-1608	48 x 72"	225

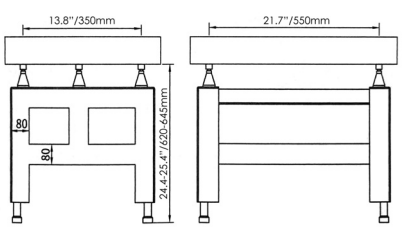
Dasqua® GRANITE SURFACE PLATE STAND

NEW

- **Designed for 1000 × 630 × 140mm (39.4 x 24.8 x 5.5") Granite Plates** for a secure and stable fit. Can be used for other sizes of granite plates.
- **Heavy-Duty Steel Construction** – Rigid steel frame provides excellent support and minimizes vibration for accurate inspection and measurement work.
- **Adjustable Leveling Feet** – Integrated leveling jacks allow precise height and leveling adjustments to compensate for uneven floors and improve measurement accuracy.
- **Stable Inspection Platform** – Designed to support large granite surface plates used for layout, inspection, calibration, and quality control applications.
- **Ergonomic Working Height** – Adjustable height range of 24.4" to 25.4" (620–645mm) provides a comfortable working position while maintaining excellent accessibility to the surface plate.



8295-0020



Dasqua® GRANITE SURFACE PLATES-GRADE A(00)

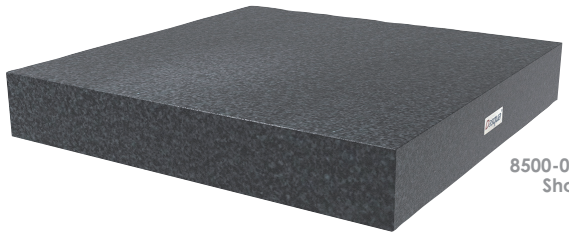
DIN 876

- Meets DIN 876, grade A(00) are used in metrology, which is the science of measurement.
- The top surface of this Dasqua surface plate is precision ground to achieve a high degree of flatness as shown in the chart.
- Granite surface plates meet or exceed Federal Specifications GGG-P-463C and it includes a certificate of inspection. (Note that these are not NIST traceable.)
- Granite plates are used for measuring the flatness and squareness of other objects, laying out parts, calibrating instruments, setting up tools, checking parallelism and perpendicularity, and measuring heights with the use of a height gage.
- They are also used as a work surface for assembling, inspecting, and marking parts. Non-magnetic and non-conductive. Harder than steel and does not nick or burr.
- Surface plates are offered by Dasqua in various sizes, with different levels of flatness and are checked by an autocollimator for overall accuracy assurance.

Grade A(00)



8500-6340 Shown



8500-0004 Shown

SPECIFICATIONS

Item#	Size L x W x H	Flatness	Weight (lbs.)
8500-0017	300 x 200 x 60mm	0.0029mm	27
8500-0043	400 x 250 x 70mm	0.0029mm	51
8500-0011	400 x 400 x 60mm	0.0029mm	69
8500-0007	450 x 450 x 80mm	0.0031mm	117
8500-6340*	630 x 400 x 80mm	0.0035mm	137
8500-0044	630 x 400 x 100mm	0.0035mm	174
8500-0004	630 x 630 x 100mm	0.0038mm	273

* Limited Supply

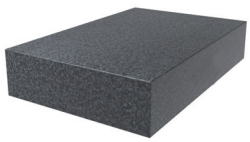
GRANITE SURFACE PLATES - Grade A (00)

Advantages of Granite:

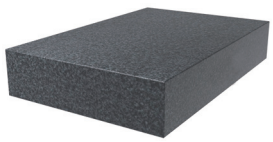
- **Incredibly Flat** – precision ground for accuracy.
- **Durable and Stable** – harder than steel, non-magnetic and resistant to wear.
- **Versatile. Ideal for:**
  - o **Machinists and Engineers** – measuring, inspecting and calibrating tools.
  - o **Quality Control** – ensuring accuracy in manufacturing processes.
  - o **DIY Enthusiasts** – woodworking, metalworking, jewelry making, leather crafting and more.
- **Tool Room Grade A/00** – The highest standard for flatness. This is perfect for most demanding applications where precision is paramount such as:
  - o **High-precision inspection** – Ensuring the accuracy of critical components and tools.
  - o **Gage calibration** – Verifying the accuracy of measuring instruments.
  - o **Quality Control** – maintaining strict quality standards in manufacturing processes.
- **Quality Assurance** – meets federal specifications GGG-P-463C. Inspected for accuracy using an autocollimator.

Item#	Size (LxWxH)	Tolerance (In/mm)	Weight (lbs.)
4401-3020	11.81x7.87x2.36" (300x200x60mm)	0.0001" / 0.0029mm	25
4401-4025	15.7x9.8x2.36" (400x250x60mm)	0.0001" / 0.0029mm	41
4401-4040	15.7x15.7x2.36" (400x400x60mm)	0.0001" / 0.0029mm	65
4401-4545	17.7x17.7x3.15" (450x450x80mm)	0.00012" / 0.0031mm	111
4401-6340	24.8x15.7x3.15" (630x400x80mm)	0.00016" / 0.0035mm	137
4401-6363	24.8x24.8x3.94" (630x630x100mm)	0.0002" / 0.0038mm	269

Granite surface plates provide an unmatched level of flatness for accurate measurement, inspection and assembly across various applications.

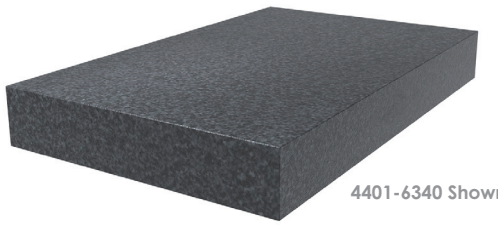


4401-3020 Shown



4401-4025 Shown

Grade A(00)



4401-6340 Shown

BLACK GRANITE SURFACE PLATES WITH STAND

- Surface plates are checked by auto-collimator for overall accuracy assurance.
- Granite surface plates meet or exceed Federal Specifications GGG-P-463C.
- Stand overall working height: 36"



STAND HEIGHT: 36"





- Stand made of heavy-gauge steel with durable baked enamel finish.
- Assembly required.
- Stand comes with leveling screws

PLATE SPECIFICATIONS
Grade: A
Ledge: 0
Accuracy: ± 0.0001"

Grade: B
Ledge: 0
Accuracy: ± 0.0002"

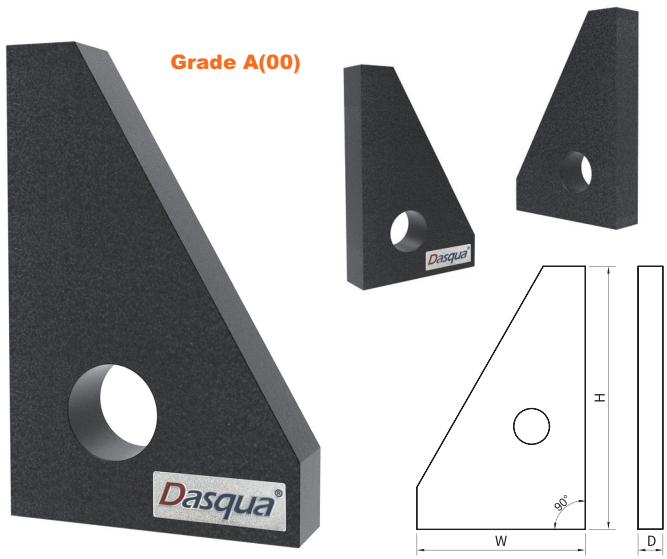


INCLUDES CERTIFICATE OF INSPECTION. NOT NIST TRACEABLE

Item#	Size	Grade	Accuracy	Wt. (lbs)
9901-2418	24 x 18 x 3"	A	±.000075"	224
9901-3616	36 x 24 x 4"	B	±.0002"	621
9901-3624	36 x 24 x 4"	A	±.0001"	621

Dasqua® PRECISION GRANITE SQUARES 90°-GRADE A(00)

- **High Precision Granite Square** – Manufactured from solid black granite with square accuracy of ±0.0002mm, ideal for inspection, setup, and layout work.
- **Stable Solid Granite Construction** – One-piece granite design provides excellent stability, wear resistance, and long-term dimensional accuracy compared to metal squares.
- **Large Reference Faces** – Features one large face and two precision-ground edges, allowing reliable squareness checks on flat and vertical surfaces.
- **Ideal for 90° Verification** – Designed specifically to check 90° angles between surfaces on edges, check 90° degrees squareness of the X and Y axes when used in a horizontal position.
- **Shop Inspection Room Ready** – Commonly used with other measuring tools to verify squareness of components and assemblies where high accuracy is required.
- **Manufacturer Inspection Certificate Included** – Supplied with an inspection certificate from the manufacturer (certificate not NIST traceable).



SPECIFICATIONS

Item#	Size H x W x D	Weight (lbs.)
8500-0038	250 x 160 x 50mm	11
8500-0041	400 x 250 x 50mm	20
8500-0042	630 x 400 x 50mm	49

PRECISION GRANITE SQUARES



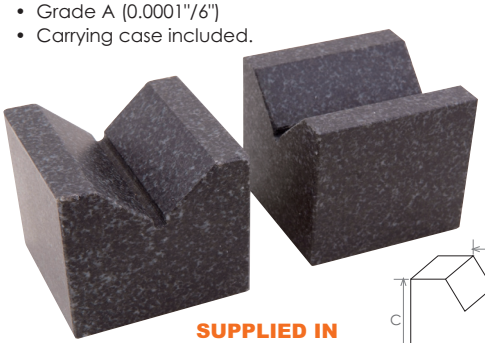
- These squares are made from a solid block of granite that has been carefully machined to ensure accurate right angles.
- Black granite squares are more durable than pink granite and help to avoid scratching.
- Granite precision squares come with one large face and two edges that are finished flat and square to each other. It consists of two faces precisely perpendicular to each other, forming a 90-degree angle.
- A precision granite square is a tool used specifically for checking the squareness (90-degree angle) between two surfaces or edges.
- Check 90 degree squareness of the X and Y axes when used in it's horizontal position.
- Check perpendicularity of the Z axes when used in it's vertical position.
- Precision granite squares are commonly used with other measurement tools to verify the squareness of various components and assemblies.
- They are particularly useful in applications where high accuracy and reliability in squareness measurements are required, such as in precision machining and tooling.
- Square has a round hole so it weighs less and is easier to handle.
- An inspection certificate from the manufacturer is provided.

Item#	H x W x Thick	Squareness	Wt. (lbs.)
4901-2705	10x 6x 1"	+/- 0.0002"	7
4901-2706	15x10x1.5"	+/- 0.00028"	18

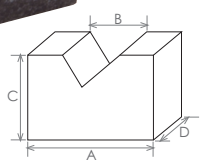
MATCHED GRANITE V-BLOCK SET

- Matched Granite V-Block Set
- 90° V-centered and parallel to bottom, two sides and ends.
- Application For Inspection and Calibration Operations.
- Grade A (0.0001"/6")
- Carrying case included.

3402-1312



SUPPLIED IN MATCHED PAIR



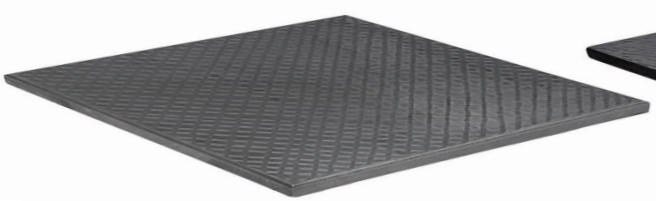
SPECIFICATIONS *Unit: mm*

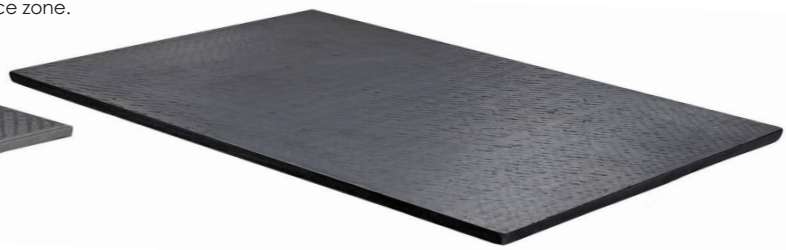
Capacity (Dia.) Min.	Capacity (Dia.) Max.	A	B	C	D	Squareness & Parallism Accuracy	Wt. (Lbs.)
5	63	63	38	63	63	.00012"	3.8

CAST IRON HAND SCRAPED SURFACE PLATES

- Made from close grained castings stress relieved, precision ground and hand scraped for high accuracy.
- Very sturdy, heavy duty construction.
- Holds magnetic bases easily.
- Flatness accuracy refers to a geometric tolerance that specifies the maximum allowable deviation of a surface from a perfectly flat plane. In simpler terms, it means the surface must stay within a tolerance zone.

Item#	Size	Flatness Accuracy	Wt. (lbs)
4406-1212	12x12x2"	±.000008mm	35.30
4406-1214	18x12x2-3/8"	±.00001mm	43.55
4406-1218	24 x18x3-3/8"	±.000012mm	99.60





Pro-Series RECTANGULAR STEEL GAGE BLOCK SETS



- Meets or exceeds Federal GGG-G-15C.
- Surface hardness: HRC 64
- Made of the highest quality tool steel.
- Complete with manufacturer's calibration or certificate.
- Fitted wood case with sizes labeled.

HHIP PRO-SERIES

81 pc Set, Grade AS-2
4101-0022

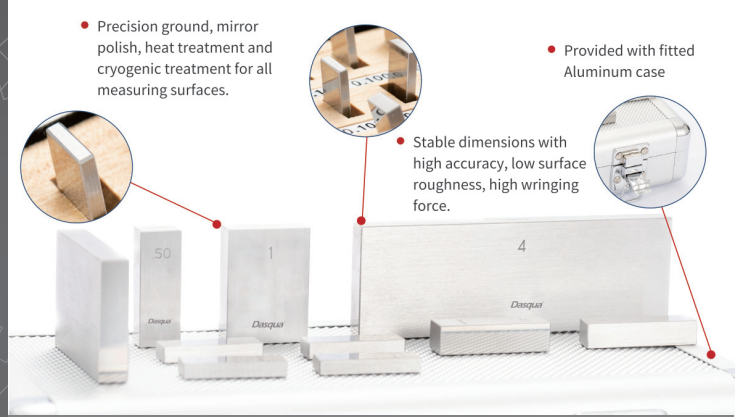
Offering N.I.S.T. Traceable Calibration Conforms to
- MIL-STD 45662A
- GGG-G-15C
- ISO/IEC 17025 Accredited
- ISO 9000, 10012-1
- ANSI-NCSL Z540-1
- ISO GUIDE 25 Certified

ACCURACY

Grade AS-0= Grade 2(At) : +4/-2 millionth
Grade AS-1= Grade 3(Bt): +8/-4 millionth
Grade AS-2= Grade B: ± 50 millionth

Item#	No. of Blocks	Grade	Blocks Included in All Sets
4101-0001	81 pc	AS-0	9 Blocks: .1001" thru .1009" step of .0001"
4101-0021	81 pc	AS-1	49 Blocks: .101" thru .149" step of .001"
4101-0022	81 pc	AS-2	19 Blocks: .050" thru .950" step of .050"
4101-0001CERT	81 pc	NIST	4 Blocks: 1.000" thru 4.000" step of 1.000"
4101-0002	36 pc	AS-0	10 Blocks: .1000" thru .1009" step of .0001"
4101-0004	36 pc	AS-2	9 Blocks: .101" thru .109" step of .001"
4101-0002CERT	36 pc	NIST	9 Blocks: .110" thru .190" step of .010" 8 Blocks: .050, .200,.300, .400, .500, 1.0, 2.0 & 4.0"

Dasqua® 81 PC RECTANGULAR CALIBRATION GAGE BLOCK SETS



- Used to calibrate and adjust measuring equipment precision instruments, machine and fixtures and to standardze the measurement of length in manufacturing.
- Made of premium hardened steel. High-carbon, high-chrome steel provides high hardness HRC63 and wear resistance.
- Stable dimensions with high accuracy, low surface roughness, high wringing force.
- Strictly made in accordance with DIN ISO 3650.
- Precision ground, mirror polish, heat treatment and cryogenic treatment of all measuring surfaces.
- Certificate of accuracy is fumished.
- Edges are slightly bevelled for protection.
- Each block is serialized and marked for easy identification.

ACCURACY

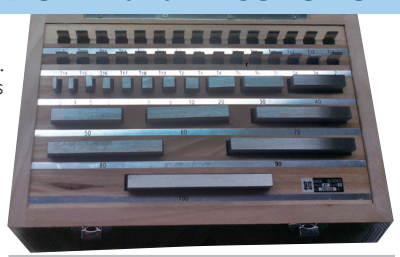
Length Range (L)	AS 0(in.)	AS 1(in.)
L-0.05"	4	6
0.05<L--0.4"	4	6
0.45<L-1"	4	6
1<L-2"	4	6
2<L-3"	4	6
3<L-4"	5	8

Item#	Grade	Pcs/Set	Nominal Size	Steps	Pieces
6111-3281	AS 1	81	0.05"	/	1
			0.1000-0.1009"	0.0001"	10
			0.101-0.149"	0.001"	49
6110-3281	AS 0		0.150-0.950"	0.05"	17
			1.000-4.000"	1.000"	4

Grade 0: mainly used in calibration laboratory by specialized inspection staff, as reference standards for calibration of high precision measuring equipment and accuracy lower than 1/2 of accuracy of gauge blocks.
Grade 1: mainly used in laboratory to inspect htgh precision workpieces, gauge blocks and measuring equipment.

METRIC RECTANGULAR STEEL GAGE BLOCK SETS

- Fitted case supplied.
- Meets or exceeds JS Standard.
- Furnished with manufacturer's calibration or certificate.
- Each block has a series no.
- Made of the highest quality tool steel.



Offering N.I.S.T. Traceable Calibration Conforms to
- MIL-STD 45662A
- GGG-G-15C
- ISO/IEC 17025 Accredited
- ISO 9000, 10012-1
- ANSI-NCSL Z540-1
- ISO GUIDE 25 Certified

ACCURACY

Nominal Size (mm)	JIS 1 Tolerances in Microns (0.001mm)	JIS 2 Tolerances in Microns (0.001mm)
10 or Less	±0.20	±0.45
10~25	±0.30	±0.60
25~50	±0.40	±0.80
50~75	±0.50	±1.00
75~100	±0.60	±1.20

Item#	No. of Blocks	Grade	Blocks Included in All Sets
4101-1041	87 pc	JIS 1	9 Blocks: 1.001~1.009 Step of 0.001mm
4101-1042	87 pc	JIS 2	49 Blocks: 1.01~1.49 Step of 0.01mm
4101-1041 CERT	87 pc	NIST	19 Blocks: 0.5~9.5 Step of 0.5mm 10 Blocks: 10~100 Step of 25mm

WOOD CASE FOR 81 PC RECTANGULAR GAGE BLOCK SETS

- Fits any grade.
- Well made wood case with high quality hardware.
- Insert is perfect fit for each block.
- Clear sizes labeled.



CASE ONLY
4101-0099

SIZES LABELED	
9 Blocks	.1001" thru .1009" step of .0001"
49 Blocks	.101" thru .149" step of .001"
19 Blocks	.050" thru .950" step of .050"
4 Blocks	1.000" thru 4.000" step of 1.000"
10 Blocks	.1000" thru .1009" step of .0001"
9 Blocks	.101" thru .109" step of .001"
9 Blocks	.110" thru .190" step of .010"
8 Blocks	.050, .200,.300, .400, .500, 1.0, 2.0 & 4.0"



PRECISION MEASURING TOOLS

GAGE BLOCK SETS & ACCESSORIES

81 PC STEEL SQUARE GAGE BLOCK SETS

ACCURACY
Grade AS-0= Grade 2(At) : +4/-2 millionth
Grade AS-1= Grade 3(Bt): +8/-4 millionth
Grade AS-2= Grade B: ± 50 millionth

81 pc Set
Grade AS-2 (Grade B)
4101-0052

- Each block with center hole threaded.
- Meet or exceeds U.S. Federal specification GGG-G-15C.
- Complete with manufacturer's calibration or certification.
- Made of the highest quality tool steel.
- Surface Hardness: HRC 64
- Sturdy fitted wood case.
- Center hole.



Offering N.I.S.T. Traceable Calibration Conforms to

- MIL-STD 45662A
- GGG-G-15C
- ISO/IEC 17025 Accredited
- ISO 9000, 10012-1
- ANSI-NCSL Z540-1
- ISO GUIDE 25 Certified

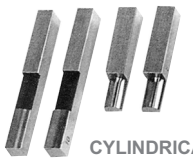
Item#	Grade	Blocks Included in All Sets
4101-0005*	AS-1	**9 Blocks:** .1001~ .1009" step of .0001" **49 Blocks:** .101~ .149" step of .001" **19 Blocks:** .050~ .950" step of .050" **4 Blocks:** 1.000~ 4.000" step of 1.000"
4101-0052	AS-2	
4101-0005CERT	**NIST**	

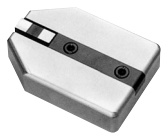
* Limited Supply

RECTANGULAR GAGE BLOCK ACCESSORIES

- **PRECISION MEASUREMENT SETUP** – Allows accurate inspection, layout, and measurement of outside, inside, and center dimensions
- **HARDENED STEEL COMPONENTS** – Precision-ground accessories provide durability and dependable measurement performance
- **QUICK AND SECURE MOUNTING** – Clamp and holder design allows fast attachment to gage blocks for efficient setup and repeatable results
- **VERSATILE SHOP APPLICATIONS** – Ideal for toolrooms, inspection departments, machine shops, and quality control applications requiring precise dimensional measurements


CLAMP


RADIUS CYLINDRICAL JAWS


BASE BLOCK

Item#	Description
4101-0601*	Base Block (4x2.750x1/7")
4101-0606	Clamp (4" capacity)
4101-0607	Clamp(8" capacity)
4101-0610	Cylindrical Jaws (pair) (Radius 0.0787")
4101-0611	Cylindrical Jaws (pair) (Radius 0.200")

* Limited Supply

50 PC PRECISION STEEL GAGE BALL SETS

- **High Precision & Accuracy** - Manufactured to tight tolerances (0.00012"/0.003mm) for precise measurements.
- **Made from hardened chrome steel** for durability and wear resistance. Hardened to 60HRC. Ground and lapped.
- **Versatile Applications** - Used for measuring hole diameters, calibrating micrometers, inspecting part tolerances, and checking bore dimensions. Commonly used in machinist setups, quality control, and precision measurement labs.
- **Uniform Sphericity** - Balls are manufactured with a high degree of roundness (Grade 24) to ensure consistency.
- **Labeled Storage Case** - Comes in a well-organized case with labeled compartments for easy size identification and access.

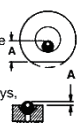


A 50-Piece (25 Pair) Precision Steel Gage Ball Set is commonly used for measuring, inspection, calibration, and gaging applications.

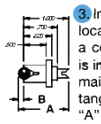


1. Checking micrometers at exact spot for wear as shown at "A" as Micro Balls are ground and lapped to a sphericity of .0006mm

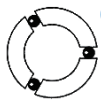
2. Checking wall thickness from inside curve to flat on outside end.



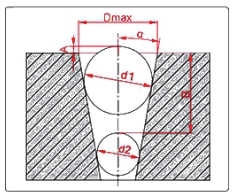
4. Checking depth of valve seats, ways, slots, etc.



3. In turning and grinding, where shoulder locations with respect to each other or to a common end are held close it is imperative that depth of center drill be maintained. Select a Micro Ball that is tangent to a center and mike overall as "A" or indicate distance as "B."


5. For boring of collets, select a set of Micro Balls the width of slots on collet. Coat Micro Balls with grease or vaseline before inserting. Close collet and bore.

6. Calculate angle (α) and diameter (Dmax) according to the ball diameter (d1, d2), height (A) and depth (B)



50 PC METRIC SET
1-25mm
4103-3050

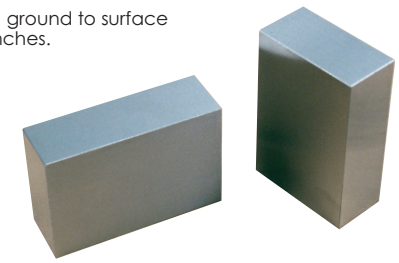
50 PC INCH SET
1/8-1"
4103-3052

ULTRA PRECISION 1-2-3 BLOCKS WITH NO HOLE

- Hardened to RC 58-60 and ground to surface finish from 6 to 10 micron inches.
- **Dimensions:** 1 x 2 x 3 .

MATCHED PAIRS AND SOLD AS PAIR

3402–0058

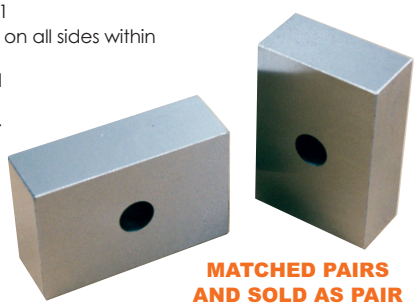


ULTRA PRECISION 1-2-3 BLOCKS WITH ONE HOLE

- For precision grinding, layout, etc.
- **Drilled Hole Size:** .500 ~.501
- Accuracy with squareness on all sides within 0.0001 per inch.
- Hardened to RC 58-60 and ground to surface finish from 6 to 10 micron inches.
- **Dimensions:** 1 x 2 x 3"

Limited Supply!

3402–0054



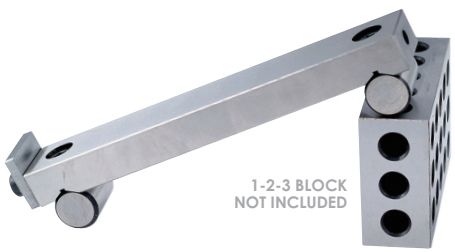
MATCHED PAIRS AND SOLD AS PAIR

SINE BARS

- For angles set up by using Sine Bar with 1-2-3 Blocks or a Gage Block.
- **Parallelism:** 0.0004".
- Working face accuracy 0.00003"/ per inch.
- Rolls center distance accuracy 0.0002".
- Flange on the end for the resting of workpiece.

5 x 1"(LxW)
3402–1205

2.5 x 1"(LxW)
3402–1203



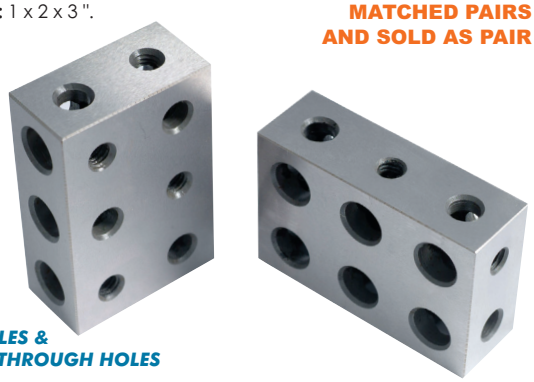
1-2-3 BLOCK NOT INCLUDED

ULTRA PRECISION 1-2-3 BLOCKS WITH 11 HOLES

- Hardened and precision ground on all 6 sides of each block.
- Accuracy with squareness on all sides within .0001 per inch.
- Consists of 5 tapped holes 5/16 - 18 for clamping and 6 untapped holes drilled through.
- **Dimensions:** 1 x 2 x 3 ".

3402–0051

MATCHED PAIRS AND SOLD AS PAIR



5 TAPPED HOLES & 6 UNTAPPED THROUGH HOLES

36 PC SPACE BLOCK SET

- Four connecting screws 1/4"~28 are included to make any length desired.
- **ID is threaded 1/4"~28.**
- Meets or exceeds federal specifications.
- Work surface hardened to 57~60 RC.
- Made of precision tool steel.
- Individually marked.
- Complete in fitted case.

3101–0003

Set Includes:
9 Blocks: .101 to .109 by .001"
15 Blocks: .050 to .190 by .010"
9 Blocks: . 200 to 1.000 by .100"
2 Blocks: .0625" and .125"
1 Extra Block: 1.000"

ACCURACY: ±0.0001"



5" SINE BAR WITH 18 RAISERS SET

A 5" sine bar set with 18 risers is a precision tool used in machining and inspection to set or measure angles accurately. Commonly applied in grinding, milling, and inspection setups.

5" Sine Bar 18 Raisers
3402–1206

- Sine bar is 5 inches (measured between the centers of the two precision-ground rollers).
- Made of hardened and precision-ground steel (often tool steel or stainless steel for durability).
- Working face accuracy 0.00003"/per inch.
- Rolls center distance 5" with accuracy 0.0002".
- 18 Raiser Blocks used for stacking to achieve precise height settings. Enables setting angles accurately via sine function calculations.
- For angles set up by using sine bar with 18 different raisers: 1/4 TPF, 1/2 TPF, 1°, 2°, 3°, 4°, 5°, 6°, 7°, 8°, 9°, 10°, 11°,12°, 13°, 14° and 15°.
- Fitted case included.

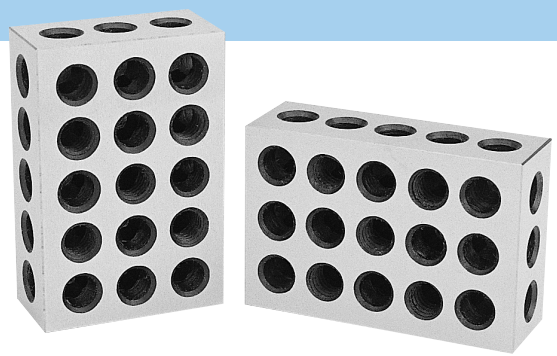


PRECISION MEASURING TOOLS

1-2-3 BLOCKS SETS

PRECISION 1-2-3 BLOCKS SETS

- Heat treated and case hardened to HRC 55 to 60.
- Hardened and precision ground on all 6 sides of each block.
- Accuracy with squareness on all sides within 0.0002" per inch.
- 23 holes consists of 5 tapped holes (3/8" - 16 for 1-2-3) for clamping and 18 untapped holes drilled.
- Cross drilling design gives minimum weight and maximum strength.
- **Dimensions:** 1 x 2 x 3"



1-2-3 BLOCK SET
3402–0005

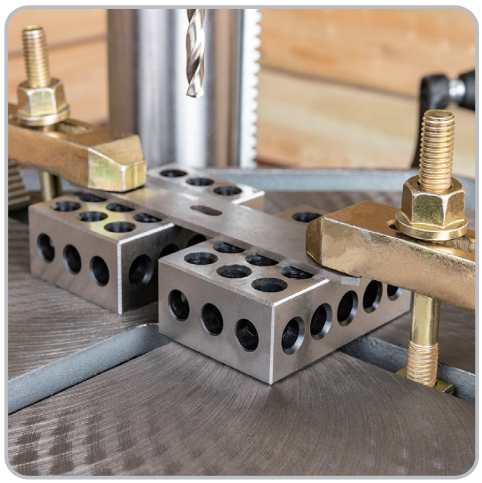
TiN Coated 1-2-3 BLOCK SET
3402–0905

MATCHED PAIRS AND SOLD AS PAIR

5 TAPPED HOLES & 18 UNTAPPED THROUGH HOLES

Dasqua® 1-2-3 BLOCKS SETS

- Product Dimensions: 1" x 2" x 3".
- Heat treated and case hardened to HRC 58-62.
- Hardened and precision ground on all 6 sides of each block.
- 23 holes consists of 5 tapped holes that are 3/8-16 for clamping and 18 untapped holes
- Sold in pairs.
- Tolerance of size ±.0002",Parallelism 0.0002",Height of pair 0.0002".
- Cross drilling design gives minimum weight and maximum strength.



MATCHED PAIRS AND SOLD AS PAIR



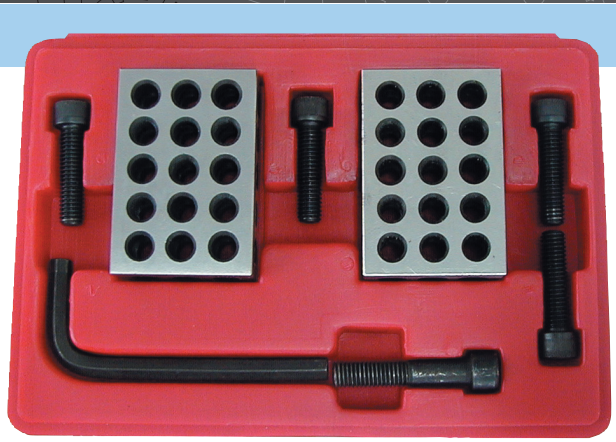
5 TAPPED HOLES & 18 UNTAPPED THROUGH HOLES

Item#	Size	Squareness	Package
8407-1010	1 x 2 x 3"	0.0003"/1"	Carton Box
8407-0005	1 x 2 x 3"	0.0001"/1"	ABS Plastic
8407-0010	1 x 2 x 3"	0.0003"/1"	ABS Plastic



ULTRA PRECISION 8 PC 1-2-3 BLOCKS & SCREWS SET

- Hardened and precision ground on all 6 sides of each block.
- Accuracy with Squareness on all sides within 0.0001 per inch.
- 23 holes consist of 5 (3/8"-16) tapped holes for clamping and 18 untapped holes drilled .
- Supplied with fitted case.



MATCHED PAIRS

8 PC SET
3402–0055

INCLUDES
Matched pair of 1-2-3 blocks with 23 holes, 5 pc of 3/8 -16 Socket Screws, Hex key

5 TAPPED HOLES & 18 UNTAPPED THROUGH HOLES

Dasqua® PRECISION 2-4-6 BLOCK SET

- 23 holes consists of 5 tapped holes that are 5/8"-11 for clamping and 18 untapped holes.
- Hardened and precision ground on all 6 sides of each block.
- Product Dimensions: 2x4x6".
- Heat treated and case hardened to HRC 58-62.
- Tolerance of size +/- 0.0002", Parallelism 0.0002", Height of pair 0.0002".
- Cross drilling design gives minimum weight and maximum strength.



8407–0035
Wt. 19 Lbs.

MATCHED PAIRS SOLD AS PAIRS

SUPERIOR QUALITY



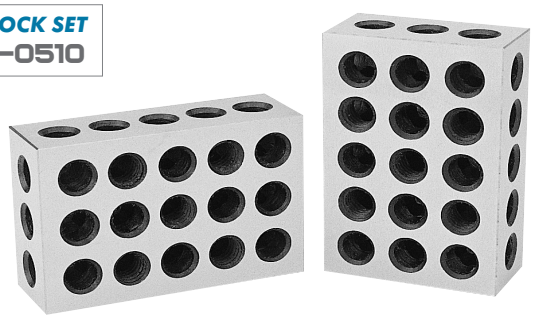
5 TAPPED HOLES & 18 UNTAPPED THROUGH HOLES

PRECISION 2-4-6 BLOCKS SET

- Heat treated and case hardened to HRC 55 to 60.
- Hardened and precision ground on all 6 sides of each block.
- Accuracy with squareness on all sides within 0.0002" per inch.
- 23 holes consists of 5 tapped holes (5/8"-11 for 2-4-6) for clamping and 18 untapped holes drilled.
- Cross drilling design gives minimum weight and maximum strength.
- Dimensions: 2 x 4 x 6"

MATCHED PAIRS AND SOLD AS PAIR

2-4-6 BLOCK SET
3402–0510



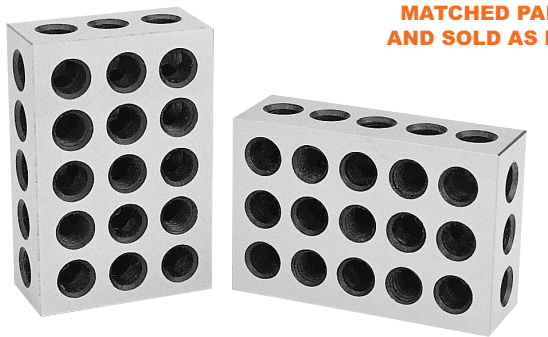
5 TAPPED HOLES & 18 UNTAPPED THROUGH HOLES

PRECISION 2-3-4 BLOCKS SET

- Hardened and precision ground on all 6 sides of each block.
- Accuracy with squareness on all sides within 0.0001" per inch.
- 23 holes consist of 5 (3/8"-16)tapped holes for clamping and 18 untapped holes drilled.
- Dimensions: 2 x 3 X 4".

3402–0906

MATCHED PAIRS AND SOLD AS PAIR

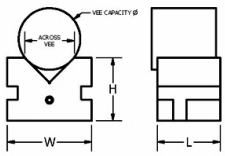


5 TAPPED HOLES & 18 UNTAPPED THROUGH HOLES

V-BLOCK SET, 3/8 EDGE & CENTER FINDER & 1-2-3 BLOCK COMBO SET

MULTI-USE V-BLOCK & CLAMP SET(PAIR)
2.5(L)X2.75(W)X2"(H) (3402-0112)

- Capacity: 2" (Round), 1-7/16" (Square)
- Stepped groove construction.
- 90° V groove accuracy are central, parallel and square with all surfaces within 0.0003".
- Case is hardened and ground.
- Clamps are included.



3/8" SHANK EDGE & CENTER FINDER (4401-0040)

- Accurately locates the starting point for all types of machine work and jig boring
- Hardened and ground all over
- Accuracy 0.0002"
- Tip Diameter: 0.200"

Combo Set
9999–0003
3402-0112, 4401-0040 & 3402-0005



PRECISION 1-2-3 BLOCKS SET-Matched Pair (3402-0005)

- Heat treated and case hardened to HRC 55 to 60.
- Hardened and precision ground on all 6 sides of each block.
- Accuracy with squareness on all sides within 0.0002" per inch.
- 23 holes consists of 5 tapped holes (3/8" - 16 for 1-2-3) for clamping and 18 untapped holes drilled.
- Cross drilling design gives minimum weight and maximum strength.
- Dimensions: 1-2-3 is 1 x 2 x 3"

1-2-3 BLOCK COMBO SETS



Dasqua® PRECISION 1-2-3 BLOCKS & 1/8" PARALLEL SET COMBO KIT

This set includes 1-2-3 Blocks (1 Pair) 23 Holes & 1/8" 10 Pc. Thin Parallel Set in a durable aluminium case.

12 PC Set
8407–8201
INCLUDES DURABLE ALUMINUM CASE





1/8" x 6" 10 PC THIN PARALLEL SET:

- Premium alloy steel, oil-quenched and hardened to HRC 58–63
- Precision ground for accuracy: ±0.01 mm height/width, ±0.005 mm parallelism
- Rounded corners protect hands, workpieces, and vises
- Slightly lapped edges help reduce collision damage
- Includes 10 matched pairs: 1/2, 5/8, 3/4, 7/8, 1, 1-1/8, 1-1/4, 1-3/8, 1-1/2 & 1-5/8".

1-2-3 BLOCKS (PAIR):

- Hardened and precision ground on all 6 sides
- Size: 1" x 2" x 3"
- 23-hole design for versatile clamping and fixturing (5 tapped holes that are 3/8"-16 & 18 untapped holes)
- Heat treated for durability (HRC 58–62)
- High accuracy for setup and alignment work. Tolerance of size +-0.0002", parallelism 0.0002" and height of pair 0.0002"

HHIP 12 PC PRECISION 1-2-3 BLOCKS & 1/8" PARALLEL SET COMBO KIT

1/8" PARALLEL SET

- The 2-hole parallels are made from fine quality tool steel that is stress relieved against distortion.
- These parallels are precision ground and hardened and are complete with a fitted wood case.
- **Sizes include:** 1/8 X 1/2 X Length, 1/8 X 5/8 X Length, 1/8 X 3/4 X Length, 1/8 X 7/8 X Length, 1/8 X 1 X Length, 1/8 X 1-1/8 X Length, 1/8 X 1-1/4 X Length, 1/8 X 1-3/8 X Length, 1/8 X 1-1/2 X Length and 1/8 X 1-5/8 X Length.
- The tolerance for the parallels is parallel to 0.0003 on 2 sides, top & bottom and the dimensions are within 0.001" allowance.



3" Length Set Shown

1-2-3 BLOCKS SET

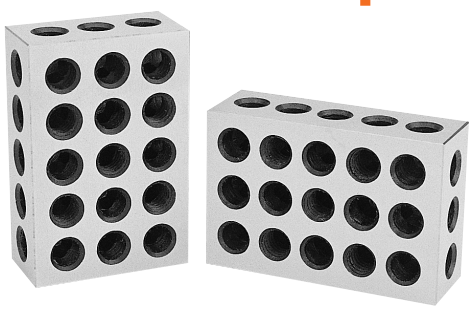
- The 23 hole 1-2-3 blocks are heat treated and case hardened to HRC 55 to 60 and are hardened and precision ground on all 6 sides of each block.
- These blocks are accurate with squareness on all sides within 0.0002" per inch.
- The 23 holes consist of 5 tapped holes that are 3/8"-16 for clamping and 18 untapped holes.
- The 1-2-3 blocks have a cross drilling design to give them minimum weight and maximum strength.
- Dimensions: 1 x 2 x 3"



DIMENSIONS
ThickxHt.xLong
1/8 x 1/2 x X"
1/8 x 5/8 x X"
1/8 x 3/4 x X"
1/8 x 7/8 x X"
1/8 x 1 x X"
1/8 x 1-1/8 x X"
1/8 x 1-1/4 x X"
1/8 x 1-3/8 x X"
1/8 x 1-1/2 x X"
1/8 x 1-5/8 x X"

BUY A COMBO & SAVE !

MATCHED PAIRS AND SOLD AS PAIR

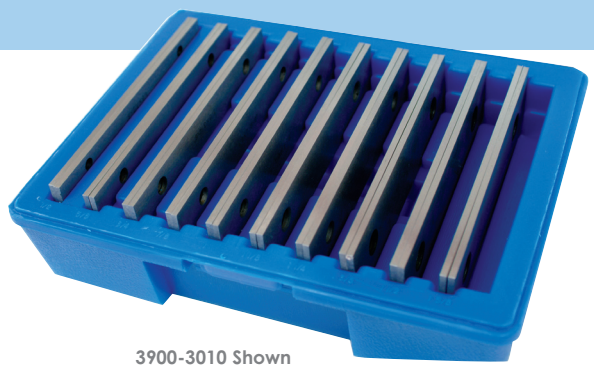


5 TAPPED HOLES & 18 UNTAPPED THROUGH HOLES

10 Pair x 3" Length SET & 1-2-3 Block Set COMBO	10 Pair x 4" Length SET & 1-2-3 Block Set COMBO	10 Pair x 5" Length SET & 1-2-3 Block Set COMBO	10 Pair x 6" Length SET & 1-2-3 Block Set COMBO
9999–0031	9999–0032	9999–0033	9999–0057

10 PAIR 1/8" PRECISION PARALLEL SETS

- **Precision Ground Accuracy** – Parallel surfaces are ground to within 0.0005" and held to a ±0.001" dimensional tolerance for dependable setup and measurement tasks.
- **Hardened Tool Steel Construction** – Made from high-quality tool steel that is hardened and stabilized to resist wear, distortion, and maintain long-term accuracy.
- **Versatile Setup Applications** – Ideal for elevating workpieces, setup work, inspection, layout, milling, grinding, and EDM operations.
- **Convenient Identification & Clamping** – Each parallel features two holes for easy handling, hanging, or wire tying during storage and setup.
- **Protective Fitted Case Included** – Supplied in a durable fitted case that keeps the parallels organized, protected, and ready for use in the shop.



3900-3010 Shown

DIMENSIONS ThickxHt.xLong
1/8 x 1/2 x X"
1/8 x 5/8 x X"
1/8 x 3/4 x X"
1/8 x 7/8 x X"
1/8 x 1 x X"
1/8 x 1-1/8 x X"
1/8 x 1-1/4 x X"
1/8 x 1-3/8 x X"
1/8 x 1-1/2 x X"
1/8 x 1-5/8 x X"

1/8 X 6" SET
3900-3010
PLASTIC CASE





TOLERANCE: PARALLEL TO 0.0003" ON 2 SIDES, TOP AND BOTTOM.
DIMENSIONS: WITHIN 0.001"ALLOWANCE.

3900-3012 Shown



1/8 X 3" SET
3900-3012
WOOD CASE

1/8 X 4" SET
3900-3002
WOOD CASE

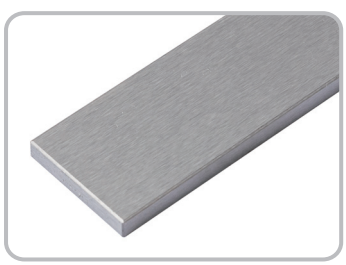
1/8 X 5" SET
3900-3013
WOOD CASE

Dasqua® 10 PAIR 1/8" PRECISION PARALLEL SET WITH ALUMINUM CASE

- Made of premium alloy steel, hardened, stress-relieved, precision ground, used in pairs.
- With high perpendicularity, parallelism, dimension accuracy, convenient to use and maintain.
- Easy to operate during the drilling, milling, assembling work, convenient to clamp workpiece, and provide a reliable and accurate posotion for the workpiece.
- **Accuracy:** Height ±0.0004", thickness ±0.0004", Parallism ±0.0002", **use in pairs:** ±0.0004"(height/thickness).
- Edges are slightly beveled.
- **Superior surface finish:** Ra 0.4um/16uin, high hardness: HRC58-63, long service life.
- Matched pairs are marked with sizes.
- Fitted aluminum case.





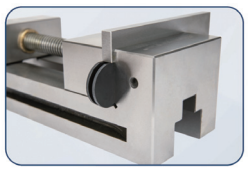


Item#	Set	Length x Thickness	Height
8204-0015	10 Pairs	1/8 x 6"	1/2", 5/8", 3/4", 7/8", 1", 1-1/8", 1-1/4", 1-3/8", 1-1/2", 1-5/8"

Dasqua® PREMIUM MAGNETIC PARALLEL SET WITH HANDLE

- Higher accuracy from Dasqua.
- Height tolerence: ±0.005mm, Width tolerence: 0.01mm.
- Hardness: 55-60HRC.
- Newly designed embeded magnets leaving your hands for clamping and setting up, reduce the clamping time significantly.


BEFORE USE


IN USE

Patented Design for Easy Installation and Disassembly



Item#	Set (Pairs)	Length	Width	Thickness
1801-0115	5	6"/150mm	1"/25mm, 1.37"/35mm, 1.57"/40mm, 1.77"/45mm, 1.85"/47mm	0.1"/2.5mm

PRECISION PARALLEL SETS

- Made from fine quality tool steel stress relieved against distortion, precision ground and hardened.
- These precision parallels are recommended for layout work, standards and set-up.
- The holes are designed for easier handling and set-ups.
- Hardness: Case hardened RC 55 to 62 on 2 sides, top and bottom only.
- Complete with fitted durable plastic case.
- TOLERANCE: PARALLEL TO 0.0003" ON 2 SIDES, TOP AND BOTTOM.
- DIMENSIONS: WITHIN 0.001"ALLOWANCE.



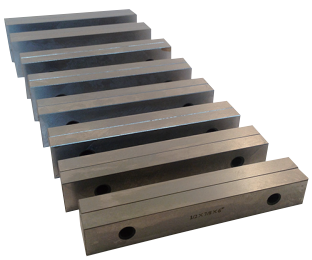
3/16", 4 PAIR SET
3900-3004

DIMENSIONS
3/16 x 1 x 6"
3/16 x 1-1/4 x 6"
3/16 x 1-1/2 x 6"
3/16 x 1-3/4 x 6"



1/4", 9 PAIR SET
3900-3009

DIMENSIONS
1/4 x 3/4 x 6"
1/4 x 7/8 x 6"
1/4 x 1 x 6"
1/4 x 1-1/8 x 6"
1/4 x 1-1/4 x 6"
1/4 x 1-3/8 x 6"
1/4 x 1-1/2 x 6"
1/4 x 1-5/8 x 6"
1/4 x 1-3/4 x 6"



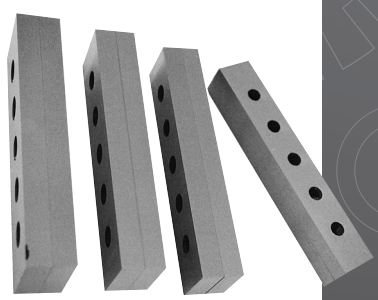
1/2", 8 PAIR SET
3900-3008

DIMENSIONS
1/2 x 7/8 x 6"
1/2 x 1 x 6"
1/2 x 1-1/8 x 6"
1/2 x 1-1/4 x 6"
1/2 x 1-3/8 x 6"
1/2 x 1-1/2 x 6"
1/2 x 1-5/8 x 6"
1/2 x 1-3/4 x 6"

DIMENSIONS
1/2 x 1 x 6"
1/2 x 1-1/4 x 6"
1/2 x 1-1/2 x 6"
1/2 x 1-3/4 x 6"

1/2", 4 PAIR SET
3900-3014

Item 3900-3014 Shown



INDIVIDUAL PRECISION PARALLELS

- Made from fine quality tool steel stress relieved against distortion, precision ground and hardened.
- 2 Holes in each parallel, are designed for easier handling and set-ups.
- Tolerance: Parallel to 0.0003" on 2 sides, top and bottom.
- Dimensions: Within 0.0001" allowance.



SOLD BY PAIR

Item#	DIMENSION (ThinkxHt.xLong)
3900-3061	1/8 x 1/2 x 6"
3900-3062	1/8 x 5/8 x 6"
3900-3063	1/8 x 3/4 x 6"
3900-3064	1/8 x 7/8 x 6"
3900-3065	1/8 x 1 x 6"
3900-3066	1/8 x 1-1/8 x 6"
3900-3067	1/8 x 1-1/4 x 6"
3900-3068	1/8 x 1-3/8 x 6"

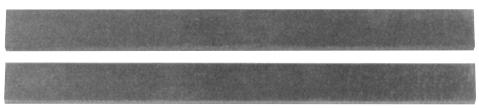
Item#	DIMENSION (ThinkxHt.xLong)
3900-3069	1/8 x 1-1/2 x 6"
3900-3070	1/8 x 1-5/8 x 6"
3900-3075	1/4 x 3/4 x 6"
3900-3077	1/4 x 1 x 6"
3900-3079*	1/4 x 1-1/4 x 6"
3900-3085*	1/2 x 1 x 6"
3900-3086*	1/2 x 1-1/8 x 6"

* Limited Supply

ULTRA PRECISION INSPECTION PARALLEL

- Parallels are furnished by pair.
- Made of high grade tool steel, stabilized and thoroughly hardened to HRC 58.
- Surface finish to 16 microninches.
- High precision - 4 faces accuracy within 0.00015" per 6 inches

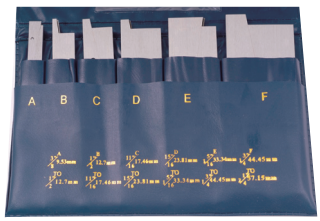
SOLD BY PAIR



ACCURACY: 0.00015"/6"

Item#	Size	Weight (lbs.)
3900-3049	1 x 2 x 12"	14

6 PC ADJUSTABLE PARALLEL SET



- Made of precision ground tool steel.
- Easily expanded to size in openings for quick reference measurements.
- Lock desired size by set screws provided.
- Exact size can be set with micrometer.
- Furnished in fitted plastic case with size range markings.

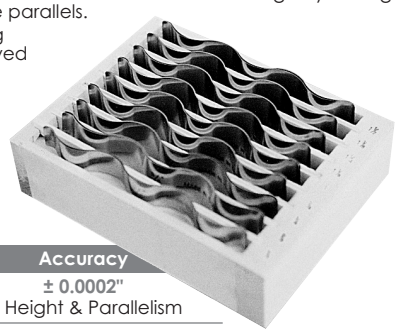
3900–0029



DIMENSIONS
3/8~1/2", 1/2~11/16", 11/16~15/16", 15/16~1-5/16", 1-5/16~1-3/4", 1-3/4~2-1/4"

9 PAIR WAVY PARALLEL SET

- For use on: Precision clamping of parts in drilling, boring, milling, grinding, assembly work, etc.
- Can readily be used as elastic shims.
- Thin and fragile workpieces can be secured without damage by utilizing the spring pressure of these parallels.
- Made of high quality spring steel, hardened, stress relieved and precision ground.
- Fitted case.



3900–2909

Range	Accuracy
1/2" ~ 1-1/2" in 1/8" Height Increments	± 0.0002" in Height & Parallelism

10 PC ANGLE BLOCKS SET

BLOCK SIZE:
3" Length x 1/4" Thickness

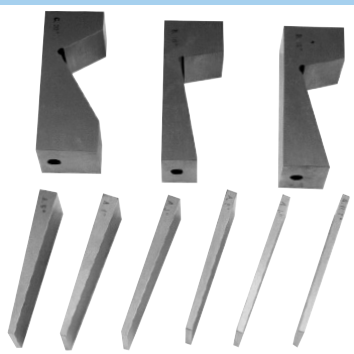


- Simple, quick angle set ups.
- Manufactured of tool steel-hardened, stabilized and ground.
- Angle accuracy: 20'.
- Fitted case.

3402–0015

INCLUDES
1, 2, 3, 4, 5, 10, 15, 20, 25, 30°

9 PC UNIVERSAL ANGLE BLOCK SET



- HRC 45 to 50 heat treatment.
- Angle Accuracy: ±5'
- Combination V-block and angle plate for rapid, easy setting.
- No sine vise, sine plate, angle vise, chart or gage block needed.

3402–0018

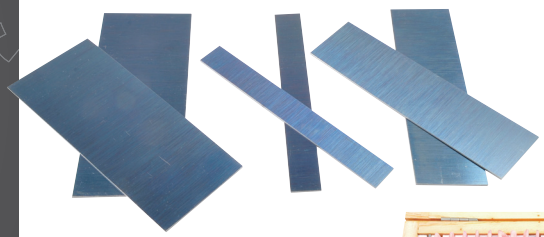
BLOCK SIZE: 2.75" L x 1.18" W

Set Includes
V-Blocks: 10, 15, 30°
Angle plates: 0.5, 1, 2, 3, 4, 5°

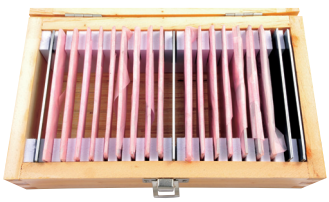
1/32" ULTRA THIN STEEL PARALLEL SETS

- **Ultra Thin 1/32" Parallels** – Ideal for precision setup and workholding where standard parallels are too thick.
- **Precision Ground Accuracy** – Parallelism held to ±0.0001", ensuring accurate height and repeatable setups.
- **High-Quality Steel Construction** – Made from fine-quality steel, stress relieved to prevent distortion and maintain long-term accuracy.
- **Hardened for Durability** – RC 50–55 hardness delivers excellent wear resistance for daily shop use.
- **20-Piece Set with Storage Case** – Includes a wide range of sizes, neatly organized in a fitted storage case for easy access.

DIMENSIONS
1/32 x 1/2"
1/32 x 9/16"
1/32 x 5/8"
1/32 x 11/16"
1/32 x 3/4"
1/32 x 13/16"
1/32 x 7/8"
1/32 x 15/16"
1/32 x 1"
1/32 x 1-1/16"
1/32 x 1-1/8"
1/32 x 1-3/16"
1/32 x 1-1/4"
1/32 x 1-5/16"
1/32 x 1-3/8"
1/32 x 1-7/16"
1/32 x 1-1/2"
1/32 x 1-9/16"
1/32 x 1-5/8"
1/32 x 1-11/16"



20 PAIR SET
4" LENGTH
3900–3030



20 PAIR SET
6" LENGTH
3900–3032



17 PC PRECISION ANGLE BLOCK SET

- Get quick setups for fringing various angles from 1/4 to 45°
- Hardened steel
- Fitted case

ACCURACY: 0.0003"

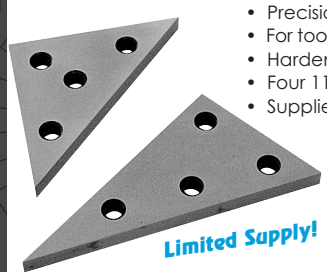


17 PC SET
3402–0019

BLOCK SIZE:
3" Length x 1/4" Thickness

INCLUDES
1/4, 1/2, 1, 2, 3, 4, 5, 10, 15, 20, 25, 30, 35, 40, & 45° and 2 riser blocks

2 PC SOLID ANGLE PLATE SET



- Precision ground angles.
- For tooling setups, production and inspection.
- Hardened and ground steel.
- Four 11/32" holes.
- Supplied in fitted case.

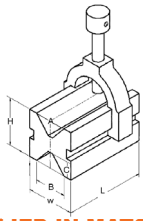
3402–0016

Includes
1pc- 45° x 45° x 90° (3 x 3 x 5/16)
1pc- 30° x 60° x 90° (2 x 3-3/8 x 5/16)

V-BLOCKS & CLAMP SETS

V-BLOCKS & CLAMPS SET

- 90° V groove accuracy are central, parallel and square with all surfaces within 0.0003".
- Case is hardened and ground.
- Clamps are included.



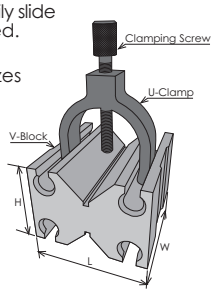


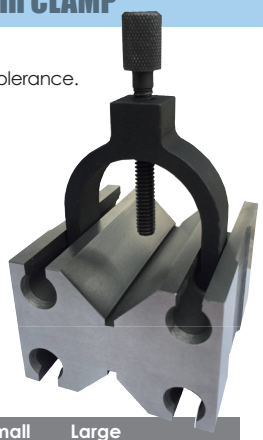
SUPPLIED IN MATCHED PAIR

Item#	Vee Capacity	Dimension (W x H x L)
3402-0952	1"	1-1/4 x 1-1/4 x 1-5/8"
3402-0951	1"	1-3/8 x 1-5/8 x 1-3/4"
3402-0953	1-1/2"	1-5/8 x 1-3/4 x 2-3/4"
3402-0954	1-1/2"	1-3/4 x 2-1/2 x 2-3/4"
3402-0955	2-1/8"	2-3/4 x 3-1/2 x 4-7/8"

Toolmaker's V-BLOCKS -Slot-In CLAMP

- Made of hardened & ground tool steel.
- Supplied in matched pair, machined to close tolerance.
- A versatile tool for Toolmakers & Machinists
- Clamps can easily slide in & are included.
- Both sides have different Vee sizes





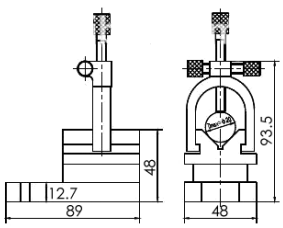
Item #	W	H	L	Small Vee	Large Vee	Weight
3402-0968	2-1/2	1-3/4	2-3/4	1	1-3/16	6 lbs.
3402-0970	3-1/2	2-3/4	4-7/8	1.22	1.38	24 lbs.

TOOLMAKER'S V-BLOCKS & CLAMP

- Blocks have four 3/8"~26 tapped holes, two in the base and one on each side for attachment to an angle iron. The angle iron holding the block can then be attached to a lathe faceplate or held by a magnetic chuck.
- Versatile tool for grinding, milling or drilling.
- A clearance hole for drilling or removing dowel pins is provided in the block.
- Blocks are hardened and precision ground.
- Side screw supports the block and prevents tilting.



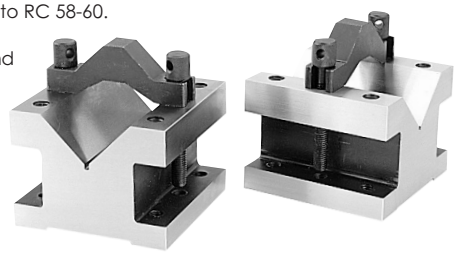
1-5/16" CAPACITY
3402-0981



ULTRA PRECISION V-BLOCK & CLAMP SETS

- Guaranteed square parallel within 0.0002".
- Hardened & ground to RC 58-60.
- 90° Vee blocks.
- Supplied with bolts and clamps in wooden case.

SUPPLIED IN MATCHED PAIR

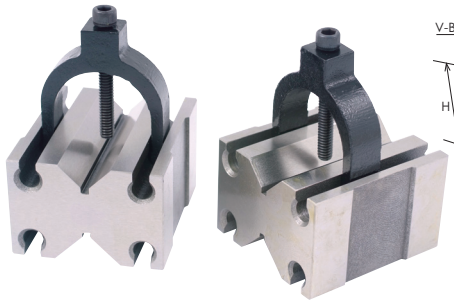


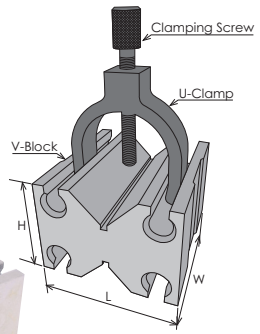
Item#	Length	(Inch) Width	Height
3402-0001*	1-3/8	1-3/8	1-3/16
3402-0002	2-3/8	2-3/8	2
3402-0003	4-1/8	4-1/8	3-1/16

* Limited Supply

VERTEX® V-BLOCK WITH CLAMP

- Made of hardened tool steel machined & ground in pairs toclose tolerance.
- A versatile tool for Toolmakers & Machinists
- Clamps can easily slide in & are included.
- Both sides have different Vee sizes





MADE IN TAIWAN

3402-0964

SUPPLIED IN MATCHED PAIR

W	H	L	Small Vee	Large Vee	G.W.
2-1/2	1-3/4	2-3/4	1	1-3/16	6 lbs

SUPER VEE BLOCK SET

- A unique and universal holding tool for small, miniature or intricate parts, used in conjunction with larger V-blocks
- Furnished with bridges to straddle long workpieces, allowing top hold down screw of V-block clamp to be utilized
- Hardened and high-precision ground
- Fitted case

SOLD AS PAIR



MADE IN USA

SQUARENESS & PARALLELISM: 0.0002"

3402-0958

INCLUDES
2 V-blocks: ..... 0.030~ .156" & .050~ .281" capacity 2 bridges and 5 upper prisms: .....1/8, 5/32 & 3/16" capacity

STEEL MULTI-USE V-BLOCK & CLAMP SET

- Stepped groove construction.
- Truly centered 90° V groove accuracy is central, parallel and square with all surfaces within 0.001".
- Clamps are included.
- Made from special tool steel precision ground and case hardened to 55-60 HRC.
- Each block has two 90° vees (large and small) which are central, parallel and square with the ends and sides.

3402–0111

SUPPLIED IN MATCHED PAIR



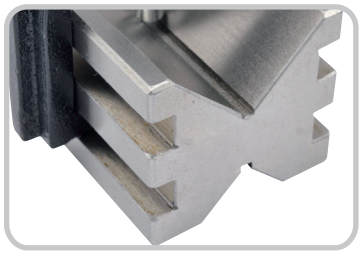
DIMENSIONS

Size (L x W x H)	Large V Width	Small V Width	Large V Depth	Small V Depth
1-5/8 x 1-1/4 x 1-1/4"	13/16"	9/16"	5/16"	1/4"

CAST IRON MULTI-USE V-BLOCK & CLAMP SETS

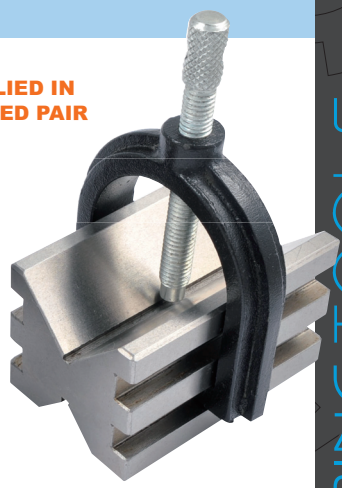
- **Precision V-Groove Accuracy** – 90° grooves are central, parallel, and square with all surfaces within 0.004".
- **Versatile Clamping** – Includes clamps for secure holding of workpieces during machining or inspection.
- **Matched Pair** – Supplied in matched pairs for consistent and reliable performance.
- **Durable Cast Iron Construction** – Heavy, rigid material provides excellent vibration damping, stability, and long-term dimensional accuracy.
- **Multiple Sizes Supported** – Suitable for a wide range of workpiece dimensions





SUPPLIED IN MATCHED PAIR

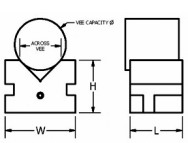


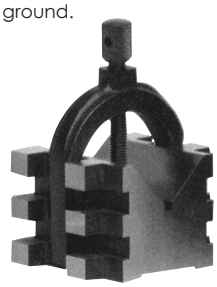


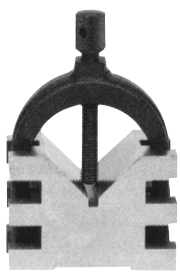
Item#	Size (L x W x H)	Large V Width	Small V Width	Large V Depth	Small V Depth	Weight
3406-0111	2 x 1-1/2 x 1-1/2"	7/8"	5/8"	3/8"	1/4"	2.4 lbs.
3406-0115	2-3/4 x 1-3/4 x 1-5/8"	1-1/4"	3/4"	9/16"	5/16"	3.8 lbs.

MULTI-USE V-BLOCK & CLAMP SET

- Stepped groove construction.
- 90° V groove accuracy are central, parallel and square with all surfaces within 0.0003".
- Case is hardened and ground.
- Clamps are included.







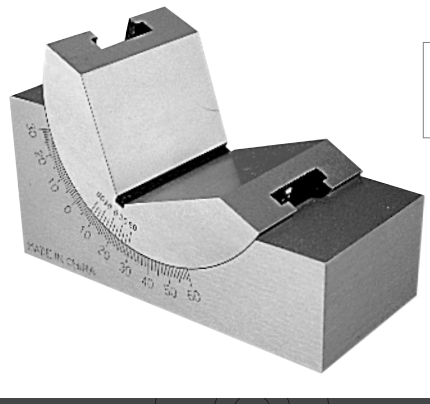
SUPPLIED IN MATCHED PAIR

Item#	Size (L x W x H)	Capacity Round	Capacity Square
3402-0112	2.50 x 2.75 x 2.00"	2"	1-7/16"

Replacement Clamp (Item #3402-0115)

0-60° PRECISION ANGLE BLOCKS

- For drilling, milling, and set up applications.
- 0~60° adjustable angle by locking the hex screw on the bottom.
- Squareness: - 0.0002".
- Angle accuracy: ±10'.
- Hardness: HRC 50-55.



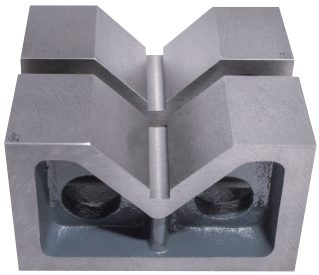
1-3/16 x 1-13/16 x 4"
(W x H x L)
3402–0011

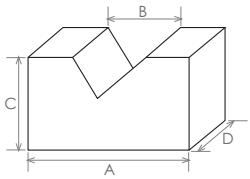
1 x 1-1/4 x 3"
(W x H x L)
3402–0010

V-BLOCK SETS

CAST IRON V-BLOCKS SETS

- Made of high quality casting, properly seasoned against distortion.
- Machined square and parallel to meet standard specifications.





SUPPLIED IN MATCHED PAIR

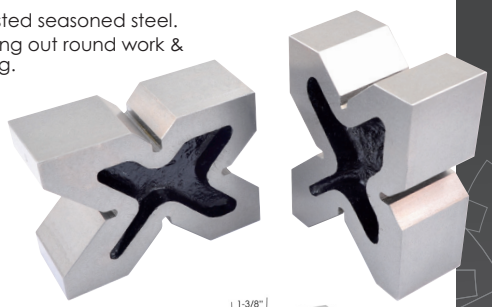
Item#	Dimensions A	B	C	D	Square & Parrallel	Wt. (lbs)
3402-1000	2"	1	1-5/8	7/8	0.0005"	2
3402-1001	3"	1-3/4	2-3/8	1-1/4	0.0005"	3
3402-1002	4"	2-1/4	2-5/8	1-5/8	0.0005"	5
3402-1003	5"	2-1/2	3-1/8	2	0.0005"	8
3402-1006	6"	3-1/8	3-1/2	2-1/2	0.0005"	13
3402-1007	7"	3-1/2	4-1/2	3	0.0006"	27
3402-1008	8"	4-1/2	5-1/2	4	0.0007"	44
3402-1010	10"	5	6-5/8	5	0.001"	73
3402-1012	12"	6	8	7	0.0012"	135

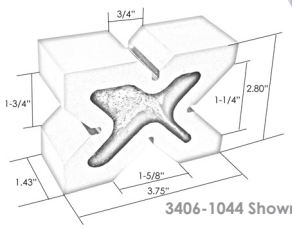
FOUR WAY V-BLOCK SETS

- Made from quality casted seasoned steel.
- Very useful tool for laying out round work & holding it for machining.
- Each block incorporates 4 different sized Vee's (90°)for wide range of jobs.

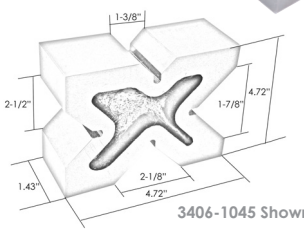
SUPPLIED IN MATCHED PAIR

90° Square Angle
0.0006" Parrallel





3406-1044 Shown



3406-1045 Shown

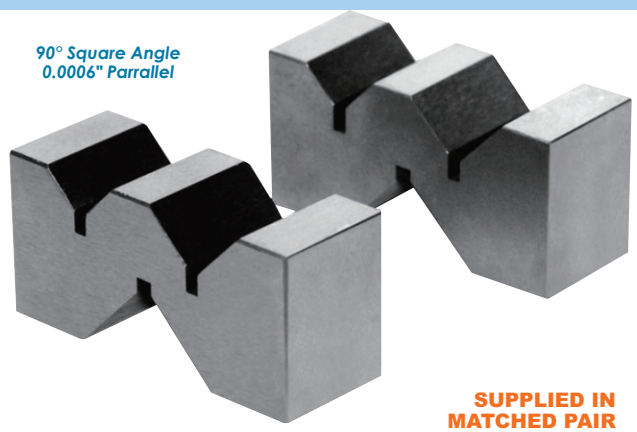
SQUARE & PARRALLEL 0.0008"

Item #	Length	(Inch) Thick	Height	Weight (lbs)
3406-1044	3-3/4	1-3/8	2-3/4	5.4
3406-1045	4-3/4	1-3/8	4-3/4	11.8

TRIPLE "V" STEEL V-BLOCK SETS

- **Triple "V" Design for Versatility** – Three precision-ground V-grooves allow secure holding of round, square, and irregular workpieces from multiple orientations.
- **Precision Ground & Square** – All sides are hardened and precision ground parallel and square; every angle is true 90° for dependable accuracy.
- **High Accuracy Performance** – Central and side V-grooves are ground parallel and square with 0.0006" parallel accuracy, ideal for inspection and layout work.
- **Matched Pair for Perfect Alignment** – Supplied as a factory-matched pair to ensure consistent height, squareness, and repeatable setups.
- **Heavy-Duty Tool Steel Construction** – Hardened steel resists wear and deformation, making these V-blocks suitable for shop, toolroom, and inspection environments.

90° Square Angle
0.0006" Parrallel



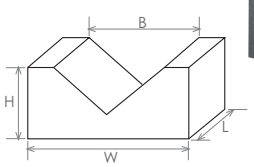
SUPPLIED IN MATCHED PAIR

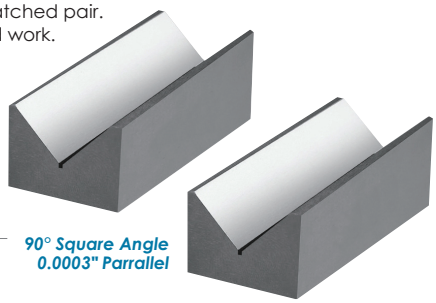
Item #	Length	(mm) Width	Height	Suitable for Dia.	Wt. (lbs.)
3406-1032	50	20	14	5~33	0.5
3406-1033	75	24	35	6~45	2.0
3406-1034	100	33	52	8~60	5.1
3406-1035	125	44	69	8~75	11.1

ELONGATED STEEL V-BLOCK SETS

- All sides hardened and precision ground parallel and square.
- "V" grooves ground central & parallel and square.
- Perfect alignment in matched pair.
- Holds square and round work.

SUPPLIED IN MATCHED PAIR





90° Square Angle
0.0003" Parrallel

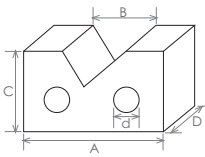
Item#	(mm) W	H	L	Capacity B	Wt. (lbs)
3406-1017*	40	30	75	5~40	2.4
3406-1019	44	40	100	5~55	5.2
3406-1023	65	55	200	5~75	19

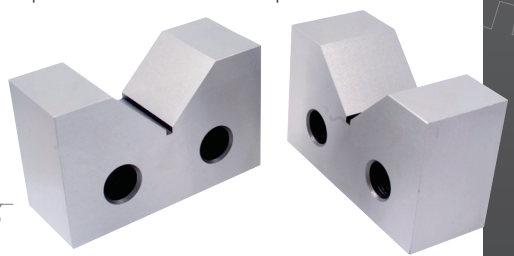
* Limited Supply

STEEL V-BLOCKS SETS

- Made of tool steel, hardened and ground.
- Machined square and parallel to meet standard specifications.

SUPPLIED IN MATCHED PAIR



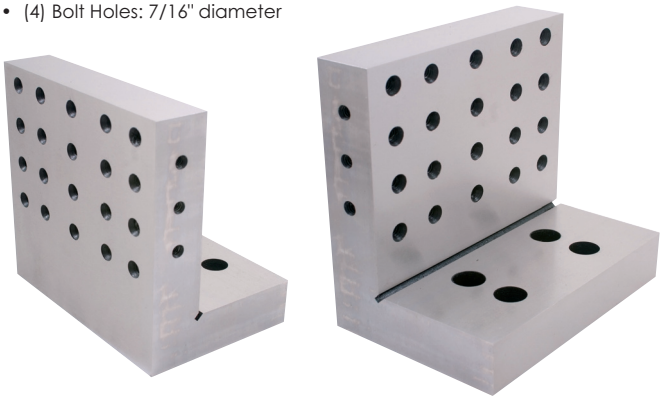


Item#	A	B	(Inch) C	D	d	Weight (lbs)
3402-1302	2"	1	1.26	0.90	0.24	1.1
3402-1303	3"	1.7	2.38	1.33	0.45	4.6
3402-1304*	4"	2.2	2.66	1.66	0.54	8.3
3402-1305*	5"	2.45	3.14	2.03	0.78	15.3
3402-1306	6"	3.1	3.52	2.52	0.93	25

* Limited Supply

ANGLE PLATES WITH BACK HOLES

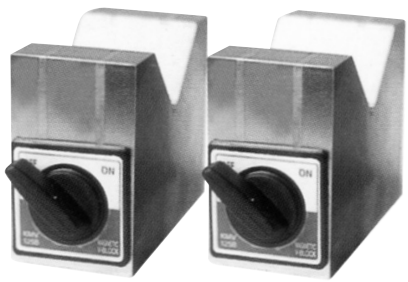
- Solid, one piece angle plate is made from hardened tool steel
- Square and parallel within 0.0002"
- Precision ground finishing
- (4) Bolt Holes: 7/16" diameter

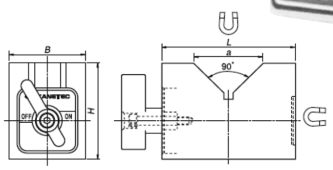


Item#	Dimension	Thread of tapped holes	Weight (lbs.)
3402-2664	6x6x4x1-1/4"	(26)1/4"-20	20

ALUMINUM CAST MAGNETIC V-BLOCK SETS

- Holds cylindrical workpieces for grinding.
- 90° Vee blocks.
- Precision ground flat, square and parallel to 0.0005".
- Switch on/off.





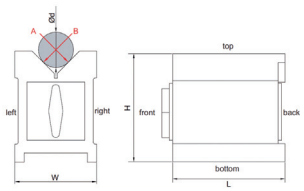
SUPPLIED IN MATCHED PAIR

Item#	Dimensions B	H	L	Max. Hold Dia.	Power Pull Each (lbs)
3402-0890	1-1/2"	2"	2-3/4"	1.90"	33
3402-0900	2"	3"	4"	3.15"	44
3402-0902	2"	4"	6"	3.90"	50

Pro-Series MAGNETIC V-BLOCKS WITH SWITCH

- Precision ground finished working surfaces.
- Ideal for scribing, grinding, measuring and machining round or irregular shape items.
- On/Off switch.

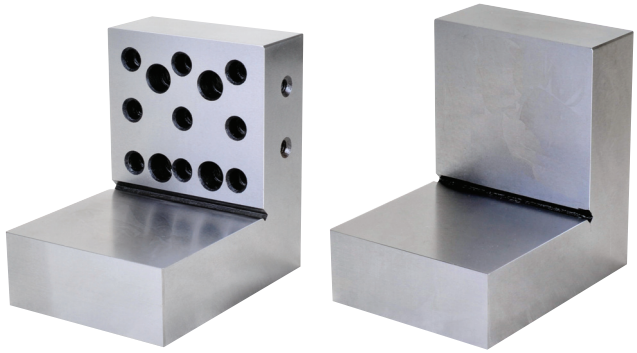




Item#	Dimensions W	H	L	Vee Width	Power Pull (lbs)
3402-0995	2.13"	2.87"	2.76"	1.5"	66
3402-0997	2.36"	2.87"	4.29"	1.5"	77

STEEL RIGHT ANGLE PLATES

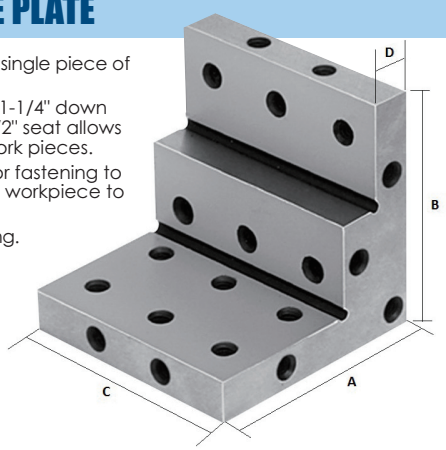
- Solid, one piece angle plate is made from hardened steel
- Square and parallel within 0.0002".
- Furnished with 1/4"-20 tapped holes



Item#	Size	Holes
3402-0443	4 x 4 x 3 x 1-1/8"	Yes
3402-1443	4 x 4 x 3 x 1-1/8"	No

STEPPED ANGLE PLATE

- Manufactured from a single piece of hardened tool steel.
- A convenient step of 1-1/4" down from the top and a 1/2" seat allows for use with smaller work pieces.
- Tapped holes allow for fastening to fixtures and clamping workpiece to the angle plate.
- Precision ground finishing.
- Square and parallel within 0.0002".



SPECIFICATIONS:

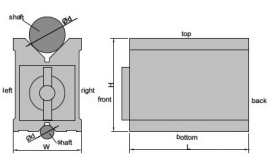
Dimension A x B x C x D	Thread of tapped holes
4 x 4 x 4 x 1-1/4"	(20)5/16"-18

3402-0101

MAGNETIC V-BLOCKS WITH SWITCH

- Precision ground finished working surfaces.
- Ideal for scribing, grinding, measuring and machining round or irregular shape items.
- On/Off switch.
- Two-centered 90° Vees.

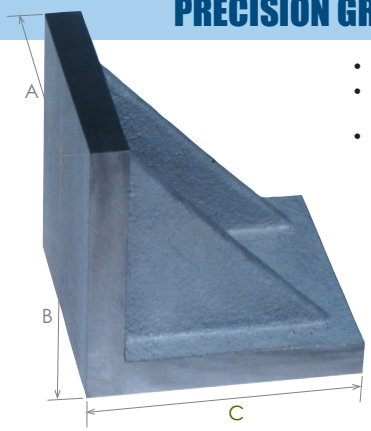




Item#	Dimensions W	H	L	Power Pull (lbs)
3402-0990	2-3/4"	3-3/4"	3"	130
3402-0901	2-3/4"	3-3/4"	4"	250
3402-0993	3"	3-3/4"	6"	320

ANGLE PLATES

PRECISION GROUND ANGLE PLATES

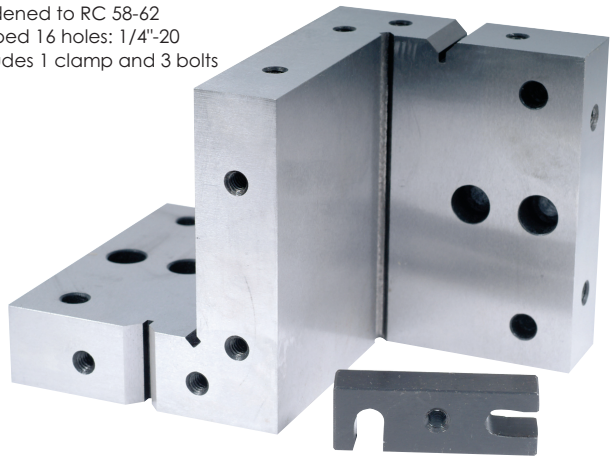


- Webbed end
- Made from high tensile cast iron normalized and stress relieved.
- Precision ground finishing: Square and parallel to 0.0005" per 6" on two working surfaces.

Item#	(Inch) A	B	C	No. of Ribs
3402-1052	2	2	2	1
3402-1053	3	3	3	1
3402-1054	4	4	5	1
3402-1055	5	5	5	1
3402-1056	6	6	6	1
3402-1058	8	8	8	1
3402-1060	10	10	10	2
3402-1062	12	12	12	2

COMPOUND ANGLE PLATE

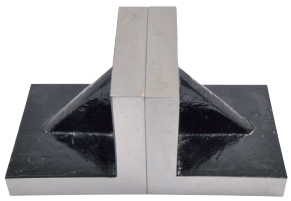
- Features ground vees for convenient holding of small round parts
- Ground flat, square and parallel within 0.0002"
- Wall dimension: 6" x 4" x 1"
- Solid 1 piece steel construction
- Hardened to RC 58-62
- Tapped 16 holes: 1/4"-20
- Includes 1 clamp and 3 bolts



Item #	Length	Wall Height	Thickness	Tapped Holes	Weight lbs
3402-1101	6"	4"	1"	(16) 1/4"-20	12

2 PC PRECISION SOLID ANGLE PLATES - SOLD BY PAIR

- **Precision 90° Angle Reference** – Designed to provide a solid, square base for accurate mounting of vises, fixtures, and sub-plates in inspection and production setups.
- **High Accuracy Ground Surfaces** – Precision ground flat and square with accuracy of 0.0004" per 6" (±0.01 mm per 150 mm) for reliable referencing and alignment.
- **Heavy-Duty Cast Iron Construction** – Manufactured from close-grained cast iron for excellent stability, vibration damping, and long service life.
- **Matched Pair for Flexible Setups** – Sold as a matched pair; use both plates together for opposing support or separately for different orientations and backup referencing.
- **Versatile Shop & Inspection Tool** – Ideal for machining, inspection, tooling, layout work, and precision setup applications in toolrooms and production environments



MATCHED PAIR

2 PC SET SOLD BY PAIR

Item#	Length	(Inch) Width	Height	Weight (lbs)
3406-0222	2	2	2	2.5
3406-0223	3	3	3	6
3406-0224	4	4	4	12



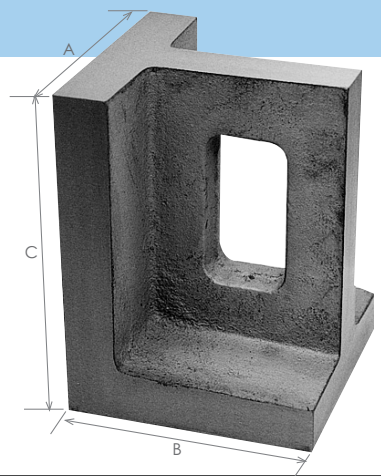
3406-0223 Shown

PRECISION GROUND UNIVERSAL RIGHT ANGLE PLATES

- Widely used for fixture components.
- All face, ends and edges are finished square and parallel.
- The opening provides a convenient hand grip for handling.
- Square within 0.0005" per 6".
- Parallel within 0.00025" per 6".

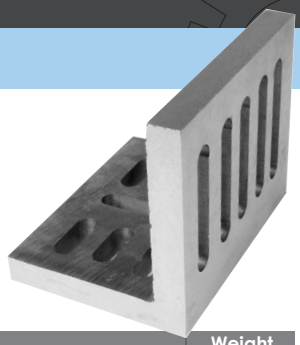
PRECISION GROUND SURFACE

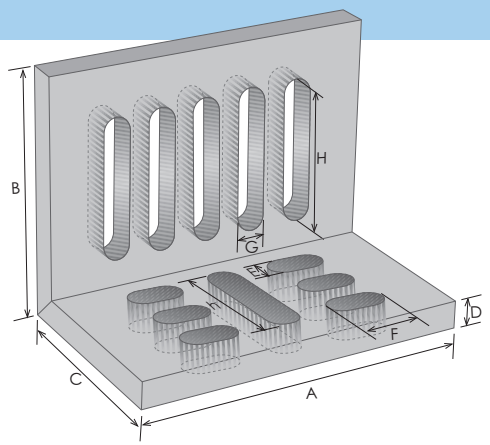
Item#	A	(Inch) B	C	Wt. (lbs)
3402-1031	3-3/4	4	5	10
3402-1032	4	5	6	16
3402-0103	4	4	6	15
3402-1033	4-1/2	5	8	21
3402-1041	5	8	12	49
3402-0109	6	6	8	35
3402-0110	8	10	12	78



SLOTTED ANGLE PLATES - OPEN END

- Convenient clamping slots for mounting and are widely used for machining, layout and inspection.
- Made of high tensile cast iron properly seasoned against distortion.
- Open-End style, accurately machined square and parallel on all faces.
- Slot A is 90° to slot C.



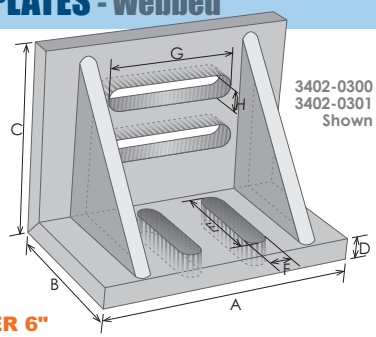


MACHINED TO 0.002" PER 6"

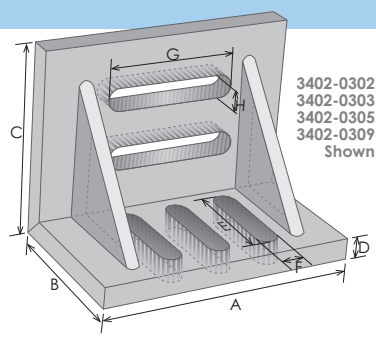
Item#	(Inch) A x B x C	(mm) D	E	F	G	H	h	Weight (lbs)
3402-0203	6 x 5 x 4-1/2	15	12	87	12	74	-	8
3402-0209	8 x 6 x 5	18	16	118	16	86	-	13
3402-0210	10 x 8 x 6	20	20	67	20	118	85	28
3402-0212	12 x 9 x 8	23	22	81	22	120	153	45

SLOTTED ANGLE PLATES - Webbed

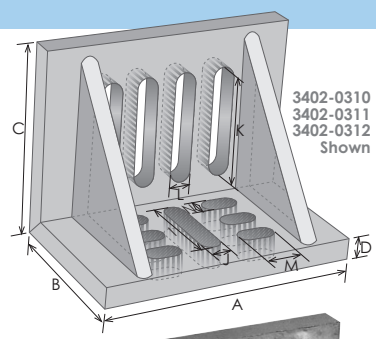
- Made of high tensile cast iron properly seasoned against distortion.
- Clamping slots are widely used for machining, layout and inspection.
- Accurately machined and ground square and parallel on outside and ends.



3402-0300
3402-0301
Shown



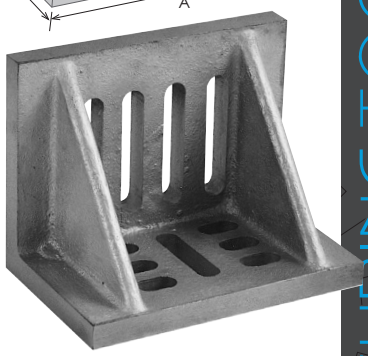
3402-0302
3402-0303
3402-0305
3402-0309
Shown



3402-0310
3402-0311
3402-0312
Shown

MACHINE TO .002" PER 6"

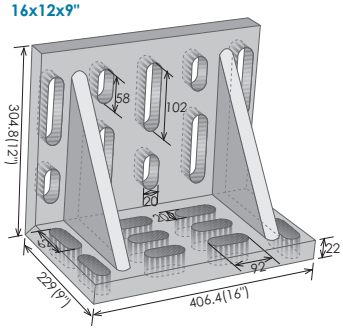
Item#	(Inch) A	B	C	(mm) D	E	F	G	H	I	J	K	L	M	N	Weight (lbs)
3402-0300	3	2.5	2	9	40	10	37	10	-	-	-	-	-	-	5
3402-0301	3.5	3	2.5	11	48	10	47	10	-	-	-	-	-	-	6
3402-0302	4.5	3.5	3	12.5	50	11	70	11	-	-	-	-	-	-	7
3402-0303	6	5	4.5	13	74	12	86	12	-	-	-	-	-	-	11
3402-0305	7	5.5	4.5	15	88	13	105	13	-	-	-	-	-	-	14
3402-0309	8	6	5	15	98	14	105	14	-	-	-	-	-	-	17
3402-0311	9	6	7	15	-	-	-	-	94	10	116	18	52	18	27
3402-0310	10	6	8	16	-	-	-	-	89	18	130	18	52	18	38
3402-0312	12	8	9	18	-	-	-	-	128	20	150	20	58	20	50



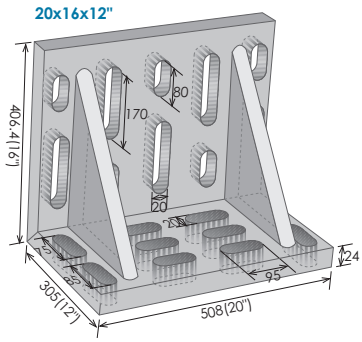
GIANT SLOTTED ANGLE PLATES - Webbed

- Machined on outside faces and with cored slots arranged for maximum clamping versatility.
- Made of high grade closegrained cast iron, stress relieved against distortion.

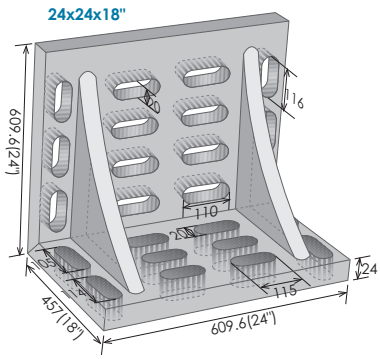
16x12x9"

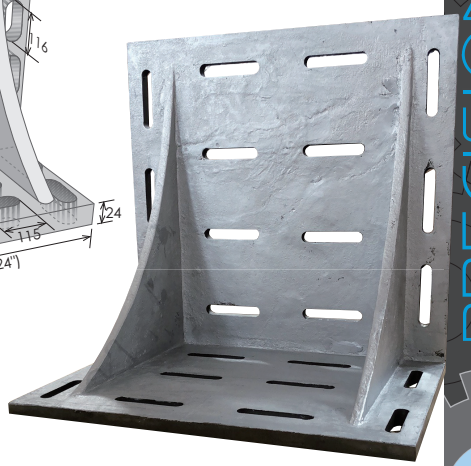


20x16x12"



24x24x18"





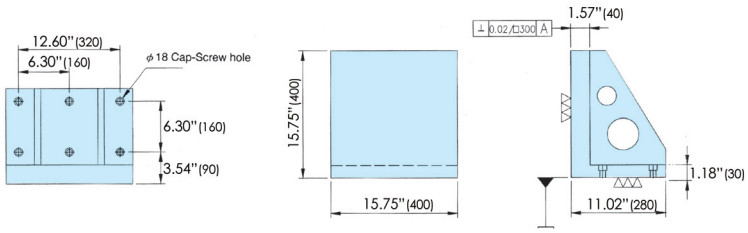
16x12x9"	20x16x12"	24x24x18"
3402-0340	3402-0342	3402-0344
Weight: 74 Lbs.	Weight: 150 Lbs.	Weight: 330 Lbs.

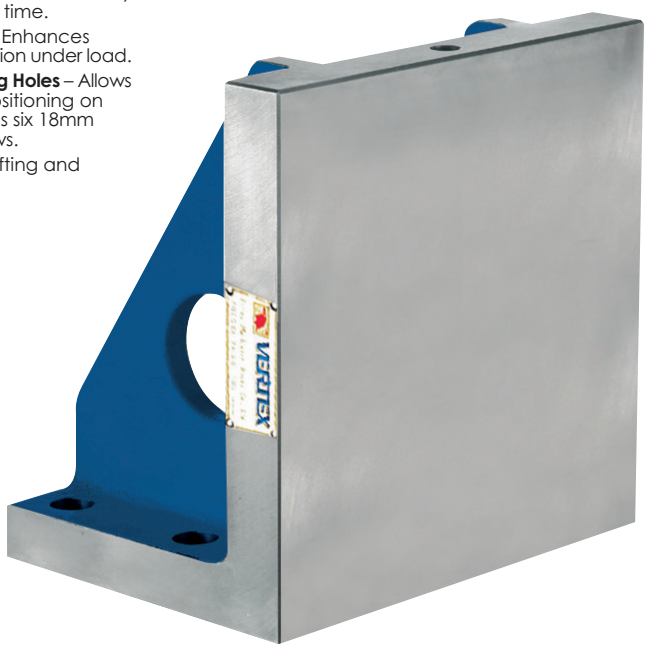
VERTEX® PRECISION 90° MACHINE ANGLE PLATE WITH SCREW HOLES

- **Made in Taiwan** – High Quality & Exceptional Value: Precision manufacturing delivers consistent accuracy and durability comparable to premium brands at a more competitive price point.
- **Precision 90° Ground Faces** – Ensures accurate right-angle setup for machining, inspection, and assembly.
- **Heavy-Duty Cast Iron Construction (FC30)** – Provides excellent rigidity and vibration damping for stable machining.
- **Heat Treated (Normalized)** – Improves durability and maintains accuracy over time.
- **Reinforced Ribbed Structure** – Enhances strength while reducing deflection under load.
- **Face-Type Design with Mounting Holes** – Allows secure clamping and easy positioning on machine tables; plate features six 18mm clearance holes for cap screws.
- **Included Eye Bolt** – Simplifies lifting and handling of heavier setups.

3402-1072
Weight: 198 Lbs.

MADE IN TAIWAN



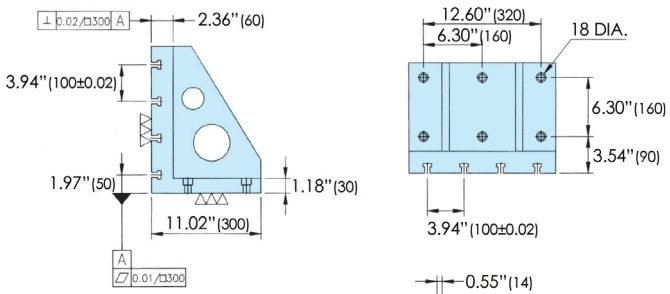


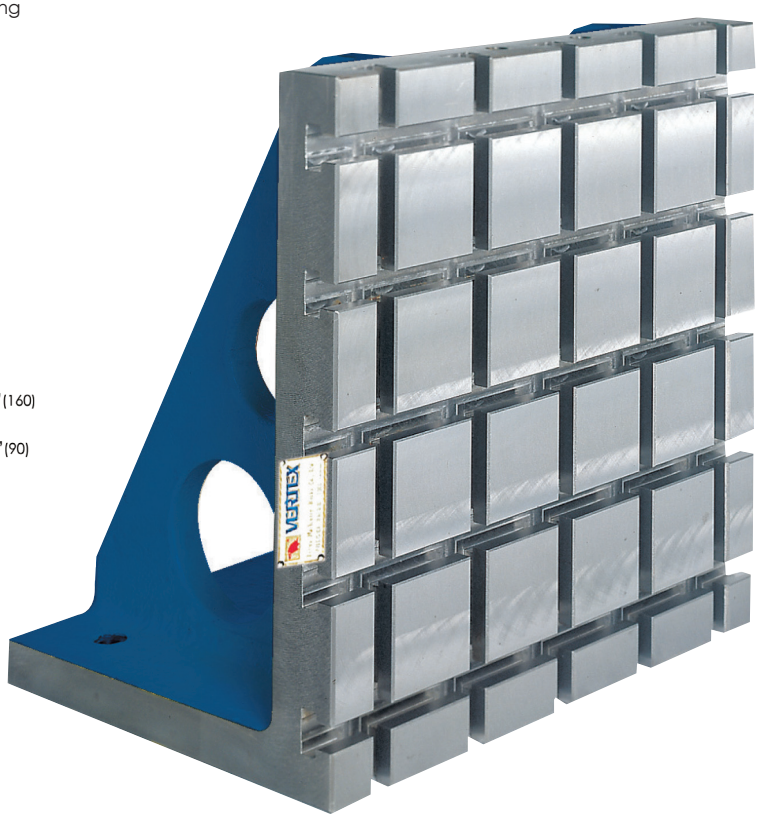
VERTEX® PRECISION 90° T-SLOT MACHINE ANGLE PLATE

- **Made in Taiwan** – High Quality & Exceptional Value: Precision manufacturing delivers consistent accuracy and durability comparable to premium brands at a more competitive price point.
- **Designed for HMC / VMC Applications** – Optimized for horizontal and vertical machining centers, improving setup flexibility and productivity
- **High-Strength Cast Iron Construction (FC30 / GG30)** – Delivers excellent rigidity and vibration damping for stable, accurate machining
- **Heat Treated & Stress Relieved** – Maintains long-term accuracy and resists distortion under heavy loads
- **Precision Ground 90° Faces** – Ensures accurate right-angle positioning for machining, inspection, and assembly work
- **T-Slot Grid with 50 ±0.02 mm Pitch** – Provides consistent spacing for precise, repeatable clamping setups
- **Alignment Bushings (SUJ2 / 100Cr6, Heat Treated)** – Enables accurate locating and quick fixture alignment for repeat jobs
- **Threaded Inserts (S45C / CK45, Heat Treated)** – Improves durability and allows secure clamping across all mounting points
- **Full Grid Hole Pattern** – Alignment bushings and threaded inserts at every location allow easy adaptation to standardized jig components

MADE IN TAIWAN

3402-1078
Weight: 252 Lbs.

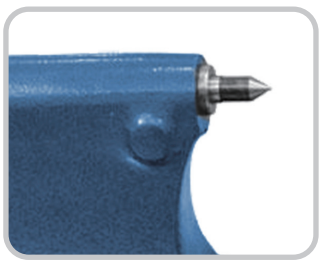


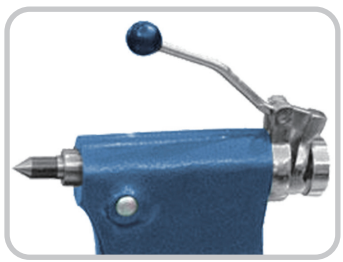


Dasqua® HEAVY DUTY PRECISION BENCH CENTER -11.81"/300mm Center Distance & Max. 13.39"/340mm Swing

- Used to make fast and precise checks of runout on cylindrical/tapered parts.
- Base and center-stocks are made of stress-relieved and aged cast iron.
- Centers are made of hardened and precision ground steel.
- Extra heavy duty adjustable indicator holder included.
- Quick release centers, #2 Morse taper centers.
- Head stock can be adjusted lengthwise and locked securely in any position by special lever type handle.

Weight Capacity: Horizontal - 200kg
Vertical - 100kg





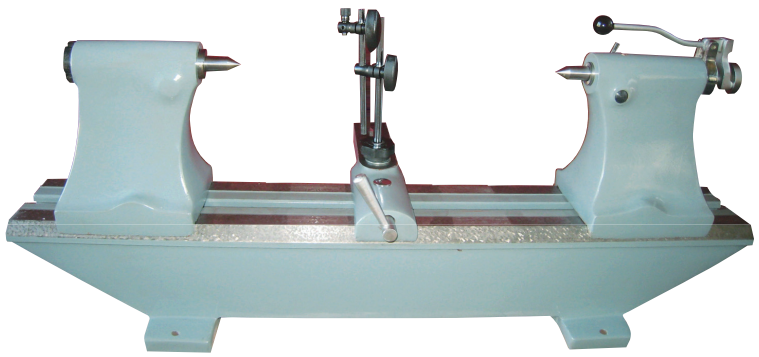


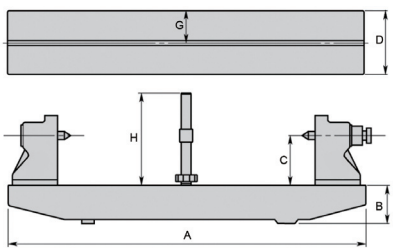
Item#	Distance between two centers	Center height	Range	Accuracy	
				Parallelism (μm)	Verticality (μm)
7851-0007	300mm	170mm	Ø340mm	⩽8	⩽5

HEAVY-DUTY PRECISION BENCH CENTERS

- Centers are hardened and precision ground.
- Quick-release centers.
- Hand scraped ways, adjustable gibes.
- MT2 dead center.
- Heavy duty adjustable indicator holder included.
- Indicator holder included and accepts most of AGD indicators.
- Head stock can be adjusted lengthwise and locked securely with special lever type handle.

23.5"
(Center to Center)
4401–0024





Item#	OAL A	Center to Center	Max. Swing C	B	D	G	H	Accuracy Run-out	Weight (Lbs.)
4401-0023	36"	19"	5.25"	6.3"	5.5"	2.76"	7.9"	0.00015"	240
4401-0024	40"	23.5"	5.25"	6.3"	5.5"	2.76"	7.9"	0.00015"	440
4401-0025	56"	39"	8.50"	6.3"	5.5"	2.76"	7.9"	0.00018"	620

Dasqua® CONCENTRICITY CHECKER WITH CAST IRON BASE

- **Hardened Cast Iron Base & Guideways** – Provides exceptional rigidity and wear resistance for long-term accuracy and repeatability.
- **Precision V-Block Supports (Ø4–Ø22mm Capacity)** – Securely holds cylindrical workpieces for accurate concentricity and runout inspection.
- **Adjustable Tailstocks with Centers** – Allows precise positioning and support of shafts and round components during measurement.
- **Movable Indicator Column** – Flexible positioning enables easy setup for different part sizes and measurement points.
- **High Accuracy Performance** – Designed for fine inspection with low runout error, ensuring reliable quality control results.
- **Smooth Sliding Base Design** – Enables easy alignment and consistent measurement along the full length of the workpiece.
- **Versatile Inspection Tool** – Ideal for checking concentricity, runout, straightness, and parallelism in machining applications.

NEW



7851–2005

SPECIFICATIONS:

Center Height	Distance Between Centers	Parallelism	Vertical Accuracy	Runout Accuracy	Center Angle (Taper)
300mm	80mm	0.01mm	0.015mm	0.003mm	60° (545 x 135 x 17.4)

CONCENTRICITY CHECKERS

Pro-Series PRECISION CONCENTRICITY CHECKER



- Suitable for measuring concentricity, roundness and deviation with high accuracy.
- Metal base can be easily attached a magnetic base
- Measuring Range: 0.059~0.980"/1.5~25 mm diameter.
- Device Dimension: 10.5 L x4.5 W x 5" H.
- Accuracy: 0.00008"/ 0.002mm.
- Max. length to hold a parts: 4"

4401-1001

MADE IN TAIWAN



MINI UNIVERSAL MAG BASE
W/FINE ADJUSTMENT

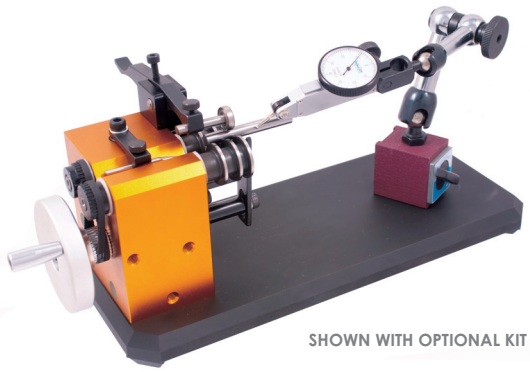




Accuracy: 0.00008"/ 0.002mm.

0.0005 GRADUATION
0-0.03" RANGE TEST INDICATOR

Base & Indicator Kit
4400-0027
With Fitted Case



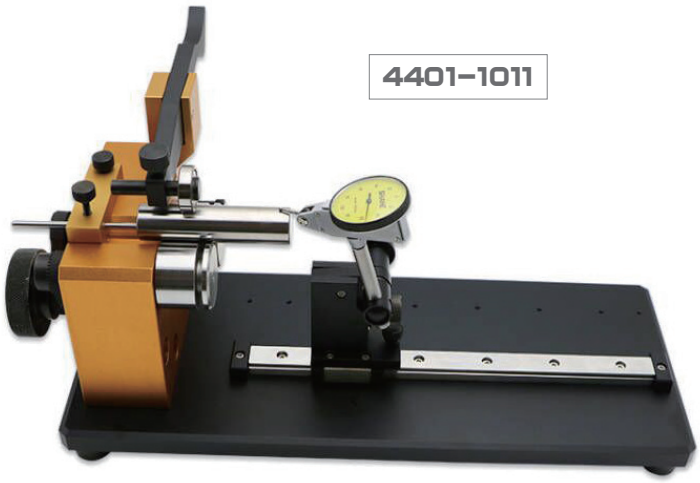
SHOWN WITH OPTIONAL KIT

LARGER CAPACITY UNIVERSAL CONCENTRICITY GAGE/CHECKER

- Concentricity Gage allows you to measure the runout of parts internal and external.
- Diameter Capacity: 0.394~1.969"(10~50 mm)
- Length Capacity: 6"
- Device Dimension: 360 (length) X150 (width) X 151mm (height)
- Accuracy: 0.00012"/ 0.003mm.
- Directional Drive Hand Wheel pushes the parts into the stop for accurate repeatable readings with equal pressure.
- Two position wheels made from solid steel
- Precision Drive Wheel has a perfect ratio to push the parts down.
- Ultra high precision ball bearings provide friction free movement.
- Heavy duty base mounted fine adjustable sliding test indicator holder. Will accept test indicator with dovetail slot.
- Adjustable mechanical arm stop holds the arm up for one handed operation.
- Two master setting pins included: 10 & 50mm diameter

Accuracy: 0.00012"/ 0.003mm

4401-1011









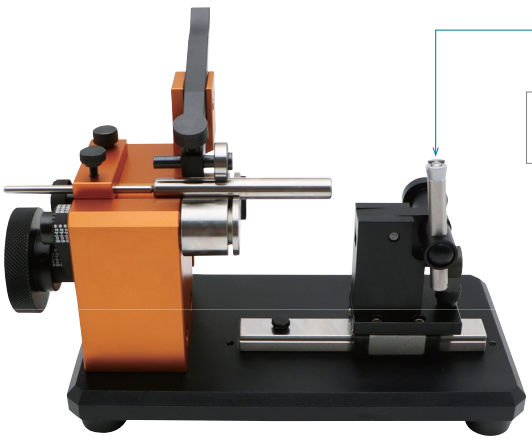
0.0005 GRADUATION
0-0.03" Range Test Indicator
4400-0010

UNIVERSAL CONCENTRICITY GAGE/CHECKERS

- Concentricity Gage allows you to measure the runout of parts internal and external.
- Diameter Capacity: 0.157~0.980"(4~25 mm)
- Length Capacity: 4"
- Device Dimension: 216 (length) X114 (width) X 130mm (height)
- Weight: 10.90 lbs.
- Accuracy: 0.00012"/ 0.003mm.
- Directional Drive Hand Wheel pushes the parts into the stop for accurate repeatable readings with equal pressure.
- Two position wheels made from solid steel
- Precision Drive Wheel has a perfect ratio to push the parts down.
- Ultra high precision ball bearings provide friction free movement.
- Heavy duty base mounted fine adjustable sliding test indicator holder. Will accept test indicator with dovetail slot.
- Adjustable mechanical arm stop holds the arm up for one handed operation.
- Two master setting pins included: 4 & 10mm diameter

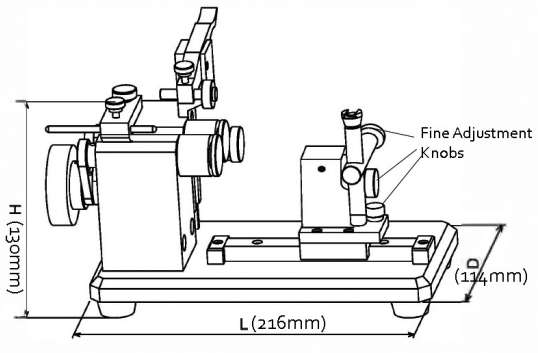
Accuracy: 0.00012"/ 0.003mm

SINGLE INDICATOR HOLDER

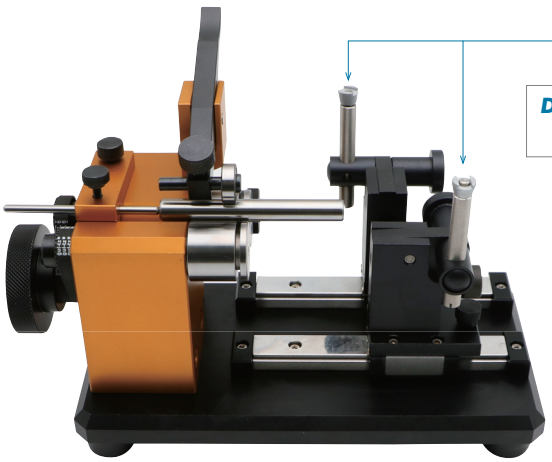


Single Indicator Holder
4401–1006



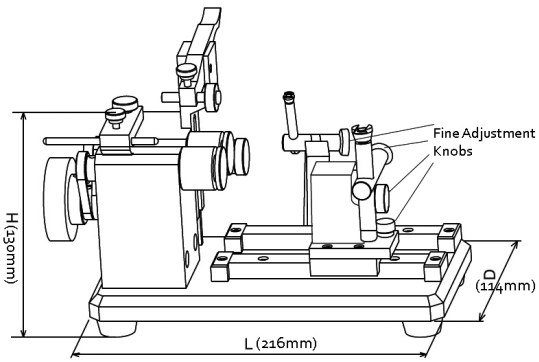


DOUBLE INDICATOR HOLDER

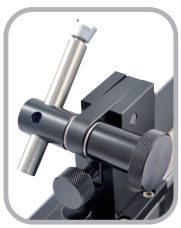


Double Indicator Holder
4401–1008





SHOWN WITH OPTIONAL INDICATOR(not included)



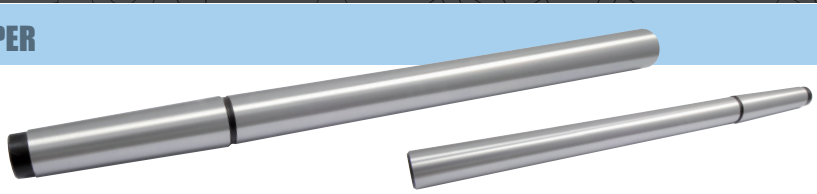





0.0005 GRADUATION
0-0.03" Range Test Indicator
4400–0010

TEST/INSPECTION MANDRELS - MORSE TAPER

- Used for checking the alignment of machine spindle axis.
- Made of high grade tool steel
- Precision ground and heat treated for maximum concentricity.
- Serves to represent materially an axis of rotation, so that the axis can be checked for alignment.
- A mandrel mounted between centers provides a reference straight - line joining the two points (centers), so as to check the alignment of the centers.
- T.I.R. is less than 5 microns per 6".



Item#	Morse Taper	Overall Length
3906-4122	MT2	11-1/8
3906-4123	MT3	13-3/16
3906-4124	MT4	15-1/4

6 PC COMPOSITE SET OF SPECIMENS

- Each Specimen 7/8" x 3/8" of electroformed solid nickel.
- Each type of surface finish is truly and consistently reproduced with a realistic idea of the feel, appearance and texture of the machined components.
- For quick and easy comparisons.
- Conforms to S.A.E and military specifications.
- Supplied with wallet and instructions.

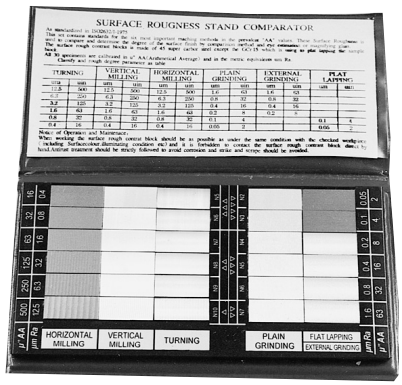
Limited Supply!



Item#	Surface Type	Micron Inch AA
4101-0024	Plain Grinding	2, 4, 8, 16, 32 & 63
4101-0025	Horizontal Milling	16, 32, 63, 125, 250 & 500
4101-0026	Vertical Milling	16, 32, 63, 125, 250 & 500
4101-0027	Turning	16, 32, 63, 125, 250 & 500
4101-0028	External Grinding	8, 16, 32 & 63

COMPOSITE SET OF SURFACE ROUGHNESS STANDARDS

- 30 Specimens 7/8" x 3/8" of electroformed solid nickel.
- Each type of surface finish is truly and consistently reproduced with a realistic idea of the feel, appearance and texture of the machined components.
- For quick and easy comparisons.
- Conforms to S.A.E and military specifications.
- Supplied with wallet and instructions.



4101-0030

SPECIFICATIONS	
Horizontal Milling (6 specimens)	16, 32, 63, 125, 250 and 500*
Vertical Milling (6 specimens)	16, 32, 63, 125, 250 and 500*
Turning (6 specimens)	16, 32, 63, 125, 250 and 500*
Plain Grinding (6 specimens)	2, 4, 8, 16, 32 and 63*
Flat Lapping (2 specimens)	2 and 4 *
External Grinding (4 specimens)	8, 16, 32 and 63*

* Micron Inch AA

Dasqua® SURFACE ROUGHNESS TESTER

The Dasqua Portable Surface Roughness Tester provides accurate and reliable surface finish measurements in a compact and user-friendly design. It measures Ra, Rz, Rq, and Rt parameters with a wide range of up to 320µm, displayed clearly on the digital screen. This tester ensures precise surface finish analysis and is ideal for quality control, manufacturing, and inspection applications. Dasqua's model is a trusted tool for professionals requiring accurate surface roughness data.

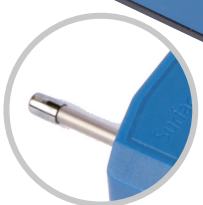
- **Portable Surface Roughness Tester** – Electro mechanical integration design, compact, lightweight, and easy to use. More than 20 hours continuous use.
- **Multiple Parameters** – Measures Ra, Rz, Rq, and Rt.
- **Wide Measurement Range** – Up to 320µm.
- **High Accuracy** – Reliable and precise readings.
- **Digital Display** – Clear and easy-to-read results.
- **Versatile Applications** – For various surface finish measurements. Can be connected to a computer and printer.
- **Compatible with** – ISO, DIN, QNSI, and JIS national standards.
- Optional accessories available.

1804-6302











DIMENSIONS

Testing parameters	Ra, Rz, Rq, Rt, Rp, Rv, R3z, R3y, RzJIS, Rsk, Rku, Rsm, Rmr, Rx
Measuring range (um)	Ra: 0.005-16.000 Rz: 0.02-160.00
Sample length (mm)	0.25, 0.80, 2.50
Evaluation length(mm)	(1-5)L
Maximum drive stroke	17.5mm/0.7inch
Indication accuracy	0.001
Indication error	±(7-10)%
Variability	<6%
Data Storage	100 groups
Power	Rechargeable li-battery
Working temperature	-20°-40°
Relative humidity	<90%
Size	158mmx63.5mmx46mm
Weight of Host	0.3kg

INCLUDES

Host	1
Standard Sensor	1
Calibration block and bracket	1
Bracket	1
Charger	1
Adjustable support	1
Operating manual	1
Warranty card	1
Certificate of approval	1
Instrument case	1

3R ROCKWELL HARDNESS TESTER

- This hardness tester is used to determine Rockwell hardness of hard alloys, quenched and unquenched steels.
- It can be applied in the laboratories, scientific research institutes and colleges.

Standard Accessories Included:

- 5-3/4" testing table.
- 2-3/16" testing table.
- 2-3/16" testing table with "V" groove.
- 120° diamond penetrator.
- 1/16" steel ball penetrating.
- Rockwell A test block (1pc)
- Rockwell B test block (1pc)
- Rockwell C test block (3pc)
- Screwdrivers (2)
- Complete instruction manual.
- Dust-proof plastic cover.

SPECIFICATIONS	
Maximum load	330 lbs.
Load range	132lbs, 220lbs, 330lbs.
Initial range load	22 lbs.
Maximum test load	4-1/4"
Depth throat	5-1/4"
Maximum depth of spindle below base	2"
Base size	7" x 18"
Height	24-1/2"
Approx.. weight	209 lbs.

8902-0150



Load Range	132lbs	220lbs	330lbs
Penetrator	Diamond 120	Ball 1/16"	Diamond 120
Test Scales	Rockwell A	Rockwell B	Rockwell C
Suitable for	Test on case hardened steel	Annealed ferrous & non-ferrous metal	Annealed hardened & tempered or deep case hardened steel

PENETRATORS FOR HARDNESS TESTER



Item#	Description
8902-0151	C Diamond
8902-0152	1/16" Steel Ball

TEST BLOCKS FOR HARDNESS TESTER



Item#	Description
8902-0130	20-30 HRC Test Block
8902-0155	35~55 HRC Test Block
8902-0170	60~70 HRC Test Block
8902-0188*	80~88 HRA Test Block
8902-0195	85~95 HRB Test Block

* Limited Supply

HASTINGS TRIPLET MAGNIFIER

- Triplet lens system
- Case color: black



Item#	Power	Lens Dia.
4902-0045	10 X	21mm

8X LED LIGHT DESK TOP MAGNIFIER

- 8x powerful magnifier
- Flexible arm any desired position adjustable
- Diameter of Visible Area: 5"
- Adjustable LED light with 300 LUX brightness, 2.5Watt.
- Power Supply: 110V/1 phase
- Furnished with 60" cord.



8070-0001



SPARE LED BULB 2.5W
(Item #8070-0004)

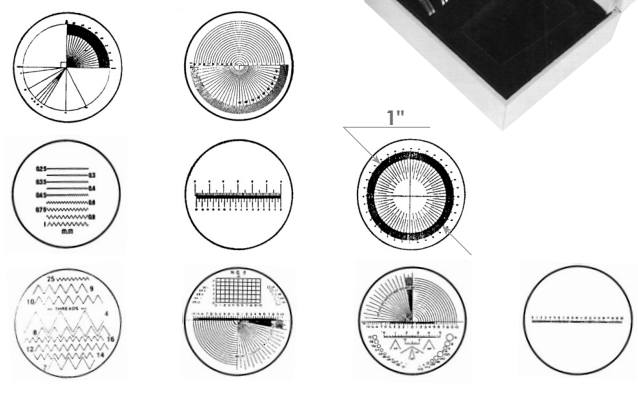
10X POCKET OPTICAL COMPARATOR SET

- Widely used by machinists, toolmakers and inspectors for checking angles, diameters, radii, thread pitches, hole sizes, etc.
- The scales are photo etched into glass reticle for easy reading.
- Reticle screw-in mounting are interchangeable.
- **9 Pc Set Includes: Comparator and 8 pc Reticle.**
- Lens diameter: 21mm

10x POWER
8902-0041







PRECISION MEASURING TOOLS

29 PC JOBBER DRILL SETS

- Production grade
- Straight shank
- Right hand
- Supplied in metal drill index
- **COBALT** used for drilling in tough high tensile strength materials like stainless steel, titanium and inconel.
- **TiN Coated** will improve the tool life and is used where elevated speeds & feeds are the objective. TiN provides high lubricity and facilitates chip flow which reduces heat and edge build-up.

M35 (5%) Cobalt
5000-0011*

Bright Finish, HSS
5001-0029*
* Limited Supply

1/16~1/2" by 64ths

TiN Coated, HSS
5000-0001

Black Oxide, HSS
5000-0002





HSS WIRE GAGE DRILL SETS

- Supplied in metal index case
- High speed steel
- Right hand

61 PC SET #1~60
5001-1060

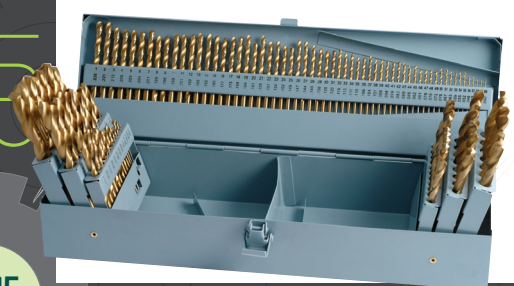
20 PC SET #61~80
5001-1020



115 PC HSS JOBBER DRILL SET

SET INCLUDES: 1/16~1/2" By 64ths, #1~60, A~Z

- Supplied in metal drill index
- **TiN Coated** will improve the tool life and is used where elevated speeds & feeds are the objective. TiN provides high lubricity and facilitates chip flow which reduces heat and edge build-up.
- Production grade
- High speed steel
- Right hand
- Straight shank



TiN Coated
5000-0003

SOLID CARBIDE DRILLS
STANDARD LENGTH, 118° SPLIT POINT

- **SOLID CARBIDE** used for low tensile strength materials such as zinc, brass, plastics and other abrasive material



* Limited Supply

Size	OAL	Item#	Size	OAL	Item#
1/16	1-1/2	5003-4004	23/64	4-1/4	5003-4023*
5/64	1-3/4	5003-4005	3/8	4-1/4	5003-4024
1/8	2-1/4	5003-4008	13/32	4-1/4	5003-4026*
3/16	2-3/4	5003-4012	7/16	4-1/4	5003-4028
1/4	3-1/4	5003-4016	29/64	4-3/4	5003-4029*
19/64	3-3/4	5003-4019*	15/32	4-3/4	5003-4030*
5/16	3-3/4	5003-4020	31/64	4-3/4	5003-4031*
11/32	4	5003-4022*	1/2	4-3/4	5003-4032

M35 5% COBALT DRILLS
135° SPLIT POINT

GROUND FROM SOLID

- **COBALT** used for drilling in tough high tensile strength materials like stainless steel, titanium and inconel.
- **135° SPLIT POINT** provides self-centering properties and secure positioning on work surface face treatment increases abrasion resistance.



* Limited Supply

Size	OAL	Item#	Size	OAL	Item#
3/32	2-1/4	5002-4006	5/16	4-1/2	5002-4020
1/8	2-3/4	5002-4008	11/32	4-3/4	5002-4022*
5/32	3-1/8	5002-4010	3/8	5	5002-4024
3/16	3-1/2	5002-4012	7/16	5-1/2	5002-4028*
1/4	4	5002-4016	29/64	5-5/8	5002-4029*
17/64	4-1/8	5002-4017	15/32	5-3/4	5002-4030*
9/32	4-1/4	5002-4018*	31/64	5-7/8	5002-4031*
19/64	4-3/8	5002-4019*	1/2	6	5002-4032



25 PC METRIC 118° DRILL SET

- Production grade
- High speed steel
- Black surface treated

Limited Supply!

MM DRILL SET IN METAL INDEX

Item#	Set	Range
5000-0007	25	1~13mm x 0.5mm

19 PC COBALT METRIC DRILL SET - 135°

- Cobalt is used for drilling in tough high tensile strength materials like stainless steel, titanium and inconel.
- 135° split point provides self-centering properties and secure positioning on work surface face treatment increases abrasion resistance.
- With index steel case.
- Ground from solid blank.

1~10mm x 0.5mm
5000-0005





Set Includes
1.0 ,1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 4.5, 5.0, 5.5, 6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0, 9.5, 10MM

18 PC HSS METRIC TAP & DRILL COMBO SET

- High speed steel made taps and drills.
- Plug taps are fully ground.
- Steel index case.
- Drills are matched with taps to make jobs much easier.



M2.5 ~ M12
1011-0020





Set Includes:
1 each HSS Hand Tap
M2.5x0.45, M3.0x0.50, M3.5x0.60, M4.0x0.70, M5.0x0.80, M6.0x1.00, M8.0x1.25, M10.0x1.50 & M12.0x1.75
1 each HSS Jobbers Drill
2.05, 2.50, 2.90, 3.30, 4.20, 5.00, 6.70, 8.50 & 10.20mm

18 PC HSS TAP & DRILL COMBO SETS

- High speed steel made taps and drills.
- Steel index case.
- Drills are matched with taps to make jobs much easier.



National Course Pitch Set Includes:
1 each HSS Hand Tap
6-32 NC, 8-32 NC, 10-24 NC, 10-32 NF, 1/4"-20 NC, 5/16"-18 NC, 3/8"-16 NC, 7/16"-14 NC, 1/2"-13 NC
1 each HSS Jobbers Drill
#36, #29, #25, #21, #7, F, 5/16" ,U, 27/64"



National Fine Pitch Set
1011-0019

National Course Pitch Set
1011-0018

National Fine Pitch Set Includes:
1 each HSS Hand Tap
6-40 NF, 8-36 NF, 10-24 NF, 10-32 NF, 1/4"-28 NF, 5/16"-24 NF, 3/8"-24 NF, 7/16"-20 NF, 1/2"-20 NF
1 each HSS Jobbers Drill
#33, #29, #25, #21, #3, I, Q, 25/34", 29/64"

HARLINGEN® 15 PC HSS METRIC TAP & DRILL COMBO SET
-Spiral Point & Plug Style

The Harlingen 15 pc. HSS Metric Tap & Drill Set provides a complete threading solution. Featuring plug-style spiral point taps for efficient chip removal in through holes, this set includes matching drills and taps, a tap wrench, and a fitted case. Made from durable HSS steel, it's ideal for metalworking, automotive repair, machinery maintenance, and threading certain rigid plastics. Note that when threading plastics, lower speeds and lubrication are recommended.

15 PC Set
M2.5~M12
1011-0030



- **HSS Steel** – Durable high-speed steel for long tool life.
- **Spiral Point (Plug)** – Drives chips forward, ideal for through holes.
- **Tap Wrench Included** – Ready for immediate use.
- **Fitted Case** – Organized and portable.
- **Applications** – Metalwork, auto repair, machinery, some rigid plastics.
- **Materials** – Mild steel, aluminum, copper, certain rigid plastics.
- **Set Includes:** Drills (2.5-10.2mm) & spiral point plug taps (3-12mm), wrench & fitted case.

14 PC H.S.S. 3-IN-1 COMBINED DRILL/TAP/COUNTERSINK & SCREWDRIVER BIT SETS

- Complete hole drilling, tapping, deburring and countersinking in one operation with power drill saves labor and time.
- For use to tap steel, copper, brass, aluminum and plastic up to 10-gauge(metal).
- Back tapered design helps prevent thread damage from over-drilling.
- One-piece drill/tap assures proper drill for tap size.
- Made of high speed steel for longer life.
- **14 pc Includes**: 6pc of combinaition drill & tap countersink.
  1pc of high torque tested quick-change adapter
  6pc of quick change CRV steel bit.
  1pc of carry case.

14 PC SET
#6~1/4"
1011-0140



1011-0140 Shown

Limited Supply!



1011-0141 Shown

Item#	Thread Range	CRV Bit
1011-0140	6~32, 8~32, 10~24	Slot3, Slot4, PZ1
	10~32, 12~24, 1/4~20	PZ2, PH1, PH2
1011-0141	M3X0.5, M4x0.7, M5x0.8,	Slot3, Slot4, PZ1
	M6x1.0, M8x1.25 & M10x1.5	PZ2, PH1, PH2

SILVER & DEMMING DRILLS & SET
118° DRILL POINT • 1/2" STRAIGHT SHANK

- High Speed Steel.
- 6" overall length.
- Black oxide.
- Set supplied with case.

8 PC SET, 9/16~1" x16ths
5000-0010





INDIVIDUALS

Item#	Size
5000-0050	17/32"
5000-0052	9/16"
5000-0056	5/8"
5000-0060	11/16"
5000-0064	3/4"
5000-0068	13/16"
5000-0072	7/8"
5000-0076*	15/16"
5000-0080	1"
5000-0088	1-1/8"
5000-0097*	1-3/8"

* Limited Supply

13 PC M35 COBALT SILVER & DEMMING DRILL SET
118° DRILL POINT • 1/2" STRAIGHT SHANK

- M35 (5%)cobalt used for drilling in tough high tensile strength materials like stainless steel, titanium and inconel.
- 6" overall length.
- Supplied with case.

13 PC SET INCLUDES:
17/32, 9/16, 19/32, 5/8, 21/32, 11/16, 23/32, 3/4,13/16, 7/8, 15/16, 31/32 & 1"

13 PC SET
5000-0012



METRIC SILVER & DEMMING DRILLS
118° DRILL POINT • 1/2" STRAIGHT SHANK

- High Speed Steel.
- 6" overall length.
- Black oxide.



Limited Supply!

Item#	Size
5000-0140	14mm
5000-0145	14.5mm
5000-0150	15mm
5000-0160	16mm
5000-0165	16.5mm
5000-0170	17mm
5000-0180	18mm
5000-0185	18.5mm
5000-0190	19mm
5000-0195	19.5mm
5000-0205	20.5mm
5000-0210	21mm
5000-0220	22mm
5000-0230	23mm

HSS TAPER SHANK DRILLS
118° SPLIT POINT

- Designed for drilling in many different materials and a wide range of applications. These drills feature a surface treatment to imporove chip flow and a taper shank made to American National Standard (Morse) dimensions. Black oxide finish for increased wear resistance and improved lubridity, reducing chip welding and galling.

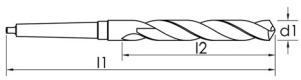
HIGH SPEED STEEL



5302-4112 Shown



5302-2024 Shown



Item#	Dia. d1	Flute Length l2	Shank Taper	OAL l1
5302-1020*	5/16	3-1/8	1MT	6-3/8
5302-2024	3/8	3-1/2	2MT	7-3/8
5302-2028	7/16	3-7/8	2MT	7-3/4
5302-2036	9/16	4-7/8	2MT	8-3/4
5302-2040	5/8	4-7/8	2MT	8-3/4
5302-2044	11/16	5-3/8	2MT	9-1/4
5302-2048	3/4	5-7/8	2MT	9-3/4
5302-2052*	13/16	6-1/8	2MT	10
5302-3052	13/16	6-1/8	3MT	10-3/4
5302-3056	7/8	6-1/8	3MT	10-3/4
5302-3104*	1-1/16	6-5/8	3MT	11-1/4
5302-4112*	1-3/16	7-3/8	4MT	13
5302-4116*	1-1/4	7-7/8	4MT	13-1/2
5302-4120*	1-5/16	8-5/8	4MT	14-1/2
5302-4124*	1-3/8	8-7/8	4MT	14-1/2
5302-4132*	1-1/2	9-3/8	4MT	15
5302-4136*	1-9/16	9-5/8	4MT	15-1/4
5302-4140*	1-5/8	10	4MT	15-5/8
5302-4148	1-3/4	10-3/8	4MT	16-1/4
5302-4200	2	10-5/8	4MT	16-5/8

* Limited Supply

HSS & M35 COBALT ANNULAR CUTTER - 3/4" SHANK

- **HSS** Production grade.
- Pilot holes.
- For general purpose hole making.
- Made of high speed steel, heat treated and tempered for maximum strength.
- Hardened and ground.
- **M35 Cobalt (5%)** is designed to cut difficult and abrasive materials, ranging from medium to high hardness, such ascastings and forgings. They have high heat and abrasion resistant properties and are best used when making heavy cuts, at high speeds and feeds, or where high heat is a factor.
- Pilot holes.
- Produces a slug of material.



3/4" SHANK



* Limited Supply

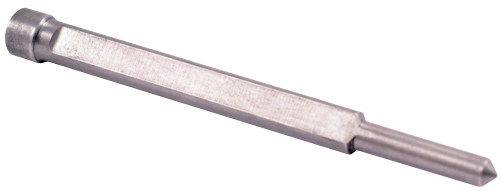
Size	HSS (High Speed Steel) 1" Depth of Cut Item#	HSS (High Speed Steel) 2" Depth of Cut Item#	M35 (5% Cobalt) 1" Depth of Cut Item#	M35 (5% Cobalt) 2" Depth of Cut Item#
7/16"	5020-0437*	5021-0437	----------	----------
1/2	5020-0500*	5021-0500	5022-0500*	5023-0500*
9/16	5020-0562*	----------	5022-0562*	----------
5/8	5020-0625*	5021-0625	5022-0625*	5023-0625*
11/16	5020-0687*	5021-0687	5022-0687*	----------
3/4	5020-0750*	5021-0750	5022-0750*	5023-0750*
13/16	5020-0812*	5021-0812	5022-0812*	----------
7/8	5020-0875*	5021-0875	5022-0875*	5023-0875*
15/16	5020-0937*	5021-0937	5022-0937*	----------
1	5020-1000*	5021-1000	5022-1000*	5023-1000*
1-1/16	----------	5021-1062	5022-1062*	----------
1-1/8	5020-1125*	5021-1125	5022-1125*	5023-1125*
1-3/16	5020-1187*	5021-1187	5022-1187*	----------
1-1/4	5020-1250*	5021-1250	5022-1250*	5023-1250*
1-5/16	----------	5021-1312	5022-1312*	----------
1-3/8	5020-1375*	5021-1375	----------	5023-1375*
1-7/16	----------	5021-1437	----------	----------
1-1/2	----------	5021-1500	5022-1500*	5023-1500*
1-9/16	5020-1562*	5021-1562	5022-1562*	----------
1-5/8	5020-1625*	5021-1625	5022-1625*	5023-1625*
1-11/16	5020-1687*	5021-1687	5022-1687*	----------
1-3/4	5020-1750*	5021-1750	5022-1750*	5023-1750*
1-13/16	5020-1812*	5021-1812	5022-1822*	----------
1-7/8	5020-1875*	5021-1875	----------	----------
1-15/16	----------	5021-1937	5022-1937*	----------
2	5020-2000*	5021-2000	5022-2000*	----------

PIN FOR ANNULAR CUTTER

- Centers the cutter for accurate hole location
- Activates coolant flow (on compatible systems)
- Ejects slug automatically after cutting.
- Hardened and precision ground for durability
- Ensures proper cutting performance and tool life

Used with:

- Magnetic drills
- Portable drilling systems
- Structural steel fabrication
- Bridge, construction, and industrial applications



For 1" Depth Cutter
5020-0003
6.34/5.30 x 77mm

For 2" Depth Cutter
5020-0006
6.34/5.30 x 102mm

M42 8% 60° COBALT CENTER DRILLS

- **COBALT** used for drilling in tough high tensile strength materials like stainless steel, titanium and inconel
- Plain style.
- Used for centering work ends, where the workpiece is to be revolved on machine centers, 60° countersink angle fits all standard centers.



60°

GROUND FROM SOLID

Item#	Size	Body Dia.	(Inch) Drill Dia.	OAL
5000-3020	000	1/8	.020	1-1/4
5000-3025	00	1/8	.025	1-1/4
5000-3031	0	1/8	1/32	1-1/4
5000-3047	1	1/8	3/64	1-1/4
5000-3078	2	3/16	5/64	1-7/8
5000-3109	3	1/4	7/64	2
5000-3125	4	5/16	1/8	2-1/8
5000-3187	5	7/16	3/16	2-3/4
5000-3218	6	1/2	7/32	3

COBALT

M42 Cobalt (8%) is designed to cut difficult and abrasive materials ranging from medium to high hardness. Center drills made of cobalt withstand elevated temperatures and ensure high edge-holding hardness during heavy cutting. Choose cobalt center drills on hard work materials or when tool wear and short tool life are an issue.

5 PC M42 8% COBALT 60° CENTER DRILL SET

GROUND FROM SOLID

- **COBALT** used for drilling in tough high tensile strength materials like stainless steel, titanium and inconel.
- Plain style.
- Used for producing center holes on parts that require matching between centers right hard cut.
- Creates 60° countersink.
- Double end provides two cutting ends.
- Right hand cut.

5 PC SET
SIZE: #1~ #5
5000-3011

Dimensions:

Size	Body Dia.	(Inch) Drill Dia.	OAL
1	1/8	3/64	1-1/4
2	3/16	5/64	1-7/8
3	1/4	7/64	2
4	5/16	1/8	2-1/8
5	7/16	3/16	2-3/4



COMBINED DRILLS & COUNTERSINKS



HARLINGEN® 7 PC ANNULAR CUTTER SET – 1" Cutting Depth

Harlingen annular cutters are hollow drill bits with sharp edges, designed to drill large, precise holes in various materials, including hardened steel, mild steel, and stainless steel (up to 35 HRC).

EASY CUT

9/16"~15/16"
5020–5007



- High speed steel with a bright finish.
- Excellent wear resistance.
- **Weldon shank** – 3/4" shank diameter.
- Compared to standard twist drill bits, annular cutters drill larger holes more quickly and with less effort. They also deliver a smoother finish than hole saws. As the cutter rotates, it removes material in a ring shape, leaving a solid core at the center. This process results in clean holes with minimal burring.
- **Set includes:** 6 annular cutters: 9/16", 5/8", 11/16", 13/16", 7/8" & 15/16"(1" cutting depth), 1 center punch & fitted carrying case.

HSS COMBINED DRILLS & COUNTERSINKS

- Made of high speed steel and ground.
- Plain style.
- Used for centering work ends, where the workpiece is to be revolved on machine centers, 60° countersink angle fits all standard centers.



GROUND FROM SOLID

Item#	Size	Body Dia.	(Inch) Drill Dia.	OAL
5000-2020	000	1/8	.020	1-1/4
5000-2025	00	1/8	.025	1-1/4
5000-2031	0	1/8	1/32	1-1/4
5000-2047	1	1/8	3/64	1-1/4
5000-2078	2	3/16	5/64	1-7/8
5000-2109	3	1/4	7/64	2
5000-2125	4	5/16	1/8	2-1/8
5000-2187	5	7/16	3/16	2-3/4
5000-2218	6	1/2	7/32	3

HSS LONG SERIES CENTER DRILLS

- Made of high speed steel and ground.
- Combined drills and countersinks (60°).

GROUND FROM SOLID



Item#	Size	OAL	(Inch) Body Dia.	Drill Dia.
5000-0025	1	4	1/8	3/64
5000-0029	2	4	3/16	5/64
5000-0031*	2	6	3/16	5/64
5000-0032	3	4	1/4	7/64
5000-0035	4	4	5/16	1/8
5000-0036	4	5	5/16	1/8
5000-0038	5	4	7/16	3/16
5000-0040	5	6	7/16	3/16
5000-0041	6	4	1/2	7/32
5000-0043	6	6	1/2	7/32

* Limited Supply

Pro-Series 8 PC HSS CENTER DRILL SET

- Made of high speed steel and precision ground to accuracy.
- Plain style.
- Used for centering work ends, where the workpiece is to be revolved on machine centers, 60° countersink angle fits all standard centers.



GROUND FROM SOLID

8 PC SET
#1~#8
5000–3003

Dimensions:

Size	Body Dia.	(Inch) Drill Dia.	OAL
1	1/8	3/64	1-1/4
2	3/16	5/64	1-7/8
3	1/4	7/64	2
4	5/16	1/8	2-1/8
5	7/16	3/16	2-3/4
6	1/2	7/32	3
7	5/8	1/4	3-1/4
8	3/4	5/16	3-1/4

HSS COMBINED DRILL & COUNTERSINK SETS

- Made of high speed steel and ground.
- Plain style.
- Used for centering work ends, where the workpiece is to be revolved on machine centers, 60° countersink angle fits all standard centers.

4 PC SET
SIZE: #1~ #4
5000–0019

GROUND FROM SOLID





5 PC SET
SIZE: #1~ #5
5000–0020

Dimensions:

Size	Body Dia.	(Inch) Drill Dia.	OAL
1	1/8	3/64	1-1/4
2	3/16	5/64	1-7/8
3	1/4	7/64	2
4	5/16	1/8	2-1/8
5	7/16	3/16	2-3/4

METRIC HSS COMBINED DRILL & COUNTERSINK 60°

- Made of high speed steel and ground.
- Plain style.
- Used for centering work ends, where the workpiece is to be revolved on machine centers, 60° countersink angle fits all standard centers.
- A combined center drill is a tool that can both drill and countersink a hole in one operation. It can be used to create a tapered feature in the end of a part or stock to provide a secure contact point for a live or dead center. The straight pilot drill section starts the hole, and provides clearance for the point of the center, so it does not contact the bottom of the hole.
- Ideal for chamfering or spot drilling.



HIGH SPEED STEEL
GROUND FROM SOLID

4 PC SET
5000-2270
INCLUDES: 1, 2, 3 & 4

60°

Item#	Size	(mm) Body Dia.	OAL
5000-2252	1.0	3.15	31.5
5000-2256	2.0	5.0	40
5000-2257	2.5	6.3	45
5000-2260	3.0	8	50
5000-2261	3.15	8	50
5000-2264	4.0	10	56
5000-2266	5.0	12.5	63

CARBIDE COMBINED DRILL & COUNTERSINK 60°

- Plain style.
- Solid carbide 60° center drill and countersinks are essential tools for achieving accurate hole preparation and machining operations in metalworking and manufacturing environments. Their combination design, precision cutting capabilities, durability, and versatility make them indispensable for professionals seeking high-quality results.
- Used for centering work ends, where the workpiece is to be revolved on machine centers, 60° countersink angle fits all standard centers.
- A combined center drill is a tool that can both drill and countersink a hole in one operation. It can be used to create a tapered feature in the end of a part or stock to provide a secure contact point for a live or dead center. The straight pilot drill section starts the hole, and provides clearance for the point of the center, so it does not contact the bottom of the hole.
- Ideal for chamfering or spot drilling.

SOLID CARBIDE



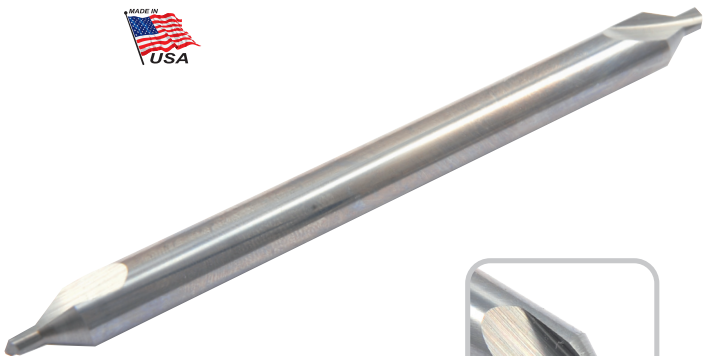


60°

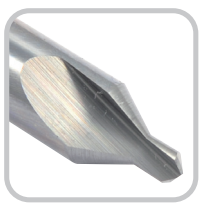
Item#	Size	Body Dia.	(Inch) Drill Dia.	OAL
5001-2025	00	1/8	.025	1-1/2
5001-2031	0	1/8	1/32	1-1/2
5001-2047	1	1/8	3/64	1-1/2
5001-2078	2	3/16	5/64	2
5001-2109	3	1/4	7/64	2
5001-2125	4	5/16	1/8	2-1/8
5001-2187	5	7/16	3/16	2-3/4
5001-2218	6	1/2	7/32	3

SOLID CARBIDE LONG CENTER DRILL & COUNTERSINKS 60°

- Plain style.
- Solid carbide 60° long center drills and countersinks offer durability, precision, and versatility, making them essential tools for achieving accurate hole preparation and machining operations in metalworking and manufacturing environments
- Used for centering work ends, where the workpiece is to be revolved on machine centers, 60° countersink angle fits all standard centers.
- A combined center drill is a tool that can both drill and countersink a hole in one operation. It can be used to create a tapered feature in the end of a part or stock to provide a secure contact point for a live or dead center. The straight pilot drill section starts the hole, and provides clearance for the point of the center, so it does not contact the bottom of the hole.
- Ideal for chamfering or spot drilling.



SOLID CARBIDE





60°

Item#	Size	Body Dia.	(Inch) Drill Dia.	OAL
5001-0025	1	1/8	3/64	4
5001-0030	2	3/16	5/64	4
5001-0032	3	1/4	7/64	4
5001-0035	4	5/16	1/8	4
5001-0040	5	7/16	3/16	6
5001-0043	6	1/2	7/32	6

Pro-Series COUNTERSINK CHAMFER GAGES

- **Accurate Countersink & Chamfer Measurement** – Designed for fast, precise measurement of countersink and chamfer diameters and angles in machined holes.
- **Direct Dial Readout** – Features a clear, easy-to-read dial indicator that displays diameter measurements directly—no calculations required.
- **High Accuracy & Repeatability** – Engineered for consistent, repeatable measurements, making it ideal for quality control and inspection applications.
- **Hardened Tool Steel Construction** – Gaging plunger and base plate are made from hardened and ground tool steel for durability in shop environments.
- **Specific Angle Conical Tip** – Features a solid conical plunger that is precision ground to a specific , exact angle (i.e. 82°, 90°, 100°) to match the part being measured. This design allows the user to determine the form of the taper, not just the diameter.
- **Plunger Mechanism** – A spring-loaded, conically ground plunger is inverted into the hole. The vertical travel of this plunger is mechanically converted into a diameter reading on the indicator via special-ratio movement.



4400-0090 Shown



4400-0092 Shown

90~127°, 0~1"
Accuracy A+/- 0.002"
4400-0092
CASE INCLUDED

0~90°, 0~1"
Accuracy A+/- 0.001"
4400-0090
CASE INCLUDED



5 PC ZERO-FLUTE COUNTERSINK & DEBURRING TOOL SETS

- Cam relieved for totally chatter free cuts
- Through hole design that is easy to re-sharpen using a small grinding wheel in cross-hole
- Excels in aluminum, plastics and other nonmetallics

Item#	Degree
2001-0006	82°
2001-0007	90°

5 PC SET INCLUDES:

Size	Dia. Cut Range	Shank Diameter
0 double end	1/16~15/64"	1/4"
1 single end	5/32~13/32"	1/4"
2 single end	3/16~17/32"	1/4"
3 single end	5/16~25/32"	1/2"
4 single end	9/16~1-3/32"	1/2"



HIGH SPEED STEEL

CARBIDE SINGLE FLUTE COUNTERSINKS 82°

- Single flute 82° countersinks with a solid carbide head offer precision, durability, and versatility for a wide range of chamfering and countersinking applications in both metalworking and woodworking industries.
- Single flutes will countersink holes much smaller than multi-flute tools.
- Ideal for chamfering.

SOLID CARBIDE HEAD

MADE IN USA



82°

Item#	Diameter Body	Dia. of Shank	OAL Approx.
2002-0250	1/4	1/4	2
2002-0375	3/8	1/4	2
2002-0500	1/2	1/4	2-1/2
2002-0626	5/8	1/2	2-3/4
2002-0750	3/4	1/2	3
2002-1000	1	1/2	3

HARLINGEN® 6 PC HELICAL COBALT METRIC COUNTERSINK SET-GUHRING STYLE

HIGH SPEED STEEL

- Three different convex cutting edges in combination with three unequal helix angles enable extremely stable and low-vibration cutting processes without any chatter marks.
- Three different curved edges result in extremely stable and chatterless burr-free operation.
- The high grade HSS Co5 substrates hold up well in high-temperature applications, providing long tool life in a wide variety of meterials.



Set Includes:
-1 each Cobalt Countersink
6.3mm, 8.3mm, 10.4mm, 12.4mm, 16.5mm, 20.5mm
-Fitted Plastic Case

Even longer service life and faster countersinking

6 PC SET
M6.3~M20.5
2001-5006



REVOLUTIONARY FLUTE GEOMETRY



Dimensions

	#1	#2	#3	#4	#5	#6
Number Of Flutes	3	3	3	3	3	3
Maximum Head Diameter (mm)	6.3	8.3	10.4	12.4	16.5	20.5
Minimum Included Angle	90	90	90	90	90	90
Shank Diameter (mm)	5	6	6	8	10	10
Cutting Direction	Right	Right	Right	Right	Right	Right
Overall Length (mm)	45	50	50	56	60	63

HSS SINGLE FLUTE COUNTERSINKS & SETS

These HHIP HSS single flute countersinks and sets offer versatility, efficiency, and durability, making them especially suitable for portable machine work and applications involving smaller holes.

Material:
Crafted from durable high speed steel (HSS) for longevity and efficient cutting performance.

Single Flute Design:
Single flute for clean and precise cutting, suitable for deburring and chamfering.

Optimized for Smaller Holes:
The single-flute design allows for countersinking smaller holes compared to multi-flute tools.

Efficient Chip Evacuation:
Single flute design aids in efficient chip evacuation during cutting.

Versatile Countersinks:
Ideal for various materials, including metals, wood, and plastics.

Various Sizes:
Available in a variety of sizes to accommodate different hole dimensions.

Diverse Chamfering Options:
Available in 60°, 82° and 90°, providing flexibility for your chamfering needs.

Advantages of Angle Options:
- **60°:** Enables quick chamfering, ideal for softer materials.
- **82°:** Offers balanced performance across a wide range of materials.
- **90°:** Provides a stronger chamfer, suitable for harder materials.

Professional and DIY Use:
Suitable for professional machining applications and DIY projects.





60° Shown



90° Shown

HIGH SPEED STEEL

5 PC. SETS:
1/4, 3/8, 1/2, 3/4 & 1"

Degree	Item#
60°	**2000-0030**
82°	**2000-0031**
90°	**2000-0032**

INDIVIDUALS (Inch)

Diameter Body	Diameter End	Dia. of Shank	OAL Approx.	60° Item#	82° Item#	90° Item#
1/4	1/32	1/4	2	**2001-0241**	**2001-0250**	**2001-0802**
3/8	1/32	1/4	2	**2001-0242**	**2001-0375**	**2001-0803**
1/2	1/32	1/4	2	**2001-0243**	**2001-0500**	**2001-0804**
5/8	1/32	3/8	2-1/4	**2001-0244**	**2001-0625**	**2001-0805**
3/4	1/8	1/2	2-3/4	**2001-0245**	**2001-0750**	**2001-0806**
1	1/8	1/2	2-3/4	**2001-0246**	**2001-1000**	**2001-0807**
1-1/4	3/32	3/4	3	**2001-0247**	**2001-1001**	**2001-0808**

9 PC 82° HSS SINGLE FLUTE COUNTERSINK SET

- Made from durable high speed steel (HSS) for long tool life and reliable cutting performance.
- Single flute design provides clean, precise countersinking and chamfering.
- Chamfer Angle: **82°**: Balanced performance across a wide range of materials
- Optimized for smaller holes, making them ideal for detailed and precision work.
- Efficient chip evacuation reduces clogging and improves surface finish.
- Suitable for metals, wood, and plastics.
- Available in multiple diameters and chamfer angles to match your application.
- Ideal for professional machine shops and DIY users.





HIGH SPEED STEEL

9 PC SET, 82°
3/16 to 1"
2000-0034

DIMENSIONS:

Diameter(Inch) Cutter	Shank	OAL Approx.
3/16	3/16	1-1/2
1/4	1/4	2
5/16	1/4	2
3/8	1/4	2
1/2	1/4	2
5/8	1/2	2-1/4
3/4	1/2	2-3/4
7/8	1/2	2-3/4
1	1/2	2-3/4

HSS 3-FLUTE CONTERSINKS & SETS

Ideal for countersinking screw and rivet heads, providing a flush and professional finish. Suitable for woodworking, metalworking, and general machining.

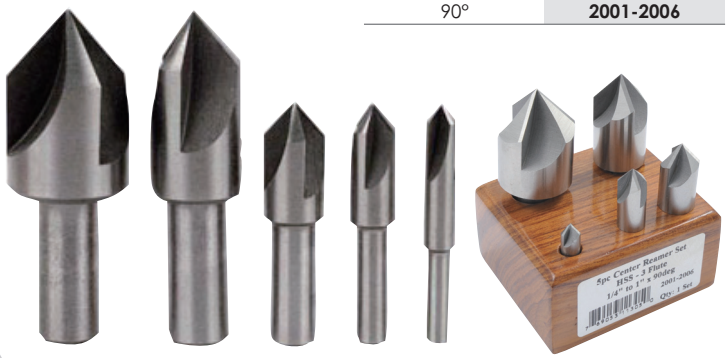
Diverse Chamfering Options:
Available in 60, 82, and 90 degrees, providing versatility for chamfering applications.

Optimized Chamfering:
- **60°:** Quick chamfering, ideal for softer materials.
- **82°:** Balanced performance across various materials.
- **90°:** Stronger chamfer, suitable for harder materials.

3-Flute Design:
Reduces chatter, ensuring smooth and precise cutting.

5 PC. SETS:
1/4, 3/8, 1/2, 3/4 & 1"
Wood Stand Included

Degree	Item#
60°	2001-2004
82°	2001-2005
90°	2001-2006



2001-2005 Shown

HIGH SPEED STEEL



2001-2004 Shown



2001-2006 Shown

INDIVIDUALS (Inch) - 82°

82° Item#	Diameter Cutter	Diameter Shank	OAL Approx.
2001-1250*	1/4	3/16	1-1/2
2001-1375*	3/8	1/4	1-3/4
2001-1500	1/2	3/8	2
2001-1625*	5/8	3/8	2-1/4
2001-1750	3/4	1/2	2-5/8
2001-2000	1	1/2	2-3/4
2001-2001	1-1/4	3/4	3-1/2

* Limited Supply

HSS 82° 6-FLUTE COUNTERSINKS & SETS

- Efficient 82° angle for balanced chamfering.
- 6-flute design for reduced chatter and improved surface finish.
- Provides maximum rigidity with relatively short cutters.
- Used for precise countersinks in holes
- Ideal for countersinking screw and rivet heads with precision.
- Versatile sets for woodworking, metalworking, and general machining.
- Wood stand included.
- **5 Pc Set includes:** 1/4, 3/8, 1/2, 3/4, 1". Sizes cover a range of common hole dimensions.
- **8 Pc Set Includes:** 1/4, 5/16, 3/8, 1/2, 5/8, 3/4, 7/8 & 1". Comprehensive set with additional sizes for a wider range of hole dimensions. Efficient for countersinking in diverse applications.

8 PC SET
2001–3001



HIGH SPEED STEEL • RIGHT HAND



5 PC SET
2001–3000

INDIVIDUALS (Inch)

Item#	Diameter Cutter	Diameter Shank	Overall Length
2001-3187*	3/16	3/16	1-1/2
2001-3250*	1/4	1/4	1-1/2
2001-3375	3/8	1/4	1-3/4
2001-3500	1/2	1/4	2-1/8
2001-3625	5/8	1/2	2-3/8
2001-3750	3/4	1/2	2-11/16
2001-3875	7/8	1/2	2-13/16
2001-4000	1	1/2	2-13/16
2001-4250	1-1/4	3/4	3-3/8
2001-4500	1-1/2	3/4	3-1/2

* Limited Supply

2 FLUTE SOLID CAP SCREW COUNTERBORES



- High speed steel.
- Straight shank.

FOR SOCKET HEAD CAP SCREWS

Item#	(Inch) Size	Pilot Size	Cutting Dia.	Shank Dia.	OAL
2007-0105	1/4	1/4	13/32	3/16	3-5/8
2007-0106*	5/16	5/16	15/32	3/8	4
2007-0107	3/8	3/8	19/32	7/16	4-3/8
2007-0108	7/16	7/16	21/32	1/2	4-3/4
2007-0109*	1/2	1/2	25/32	3/4	5-1/8

* Limited Supply

40 PC HSS COUNTERBORE SET
Straight Shank • Interchangeable Pilot

- High speed steel.
- 3 Flutes.
- Straight shank.



SET INCLUDES:

26 Pilots
- 3/32" Shank: 1/8, 5/32, 3/16 & 1/4"
- 5/32" Shank: 3/16, 7/32, 1/4, 9/32 & 5/16"
- 3/16" Shank: 1/4, 5/16, 3/8, 7/16 & 1/2"
- 1/4" Shank: 5/16, 3/8, 7/16, 1/2, 9/16 & 5/8"
- 5/16" Shank: 3/8, 7/16, 1/2, 9/16, 5/8 & 3/4"

13 Counterbores
- 1/4" thru 1" by 16ths.
- Supplied in fitted case.

40 PC SET
2007–0041

21 PC INTERCHANGEABLE PILOT COUNTERBORE SET
High Speed Steel • Straight Shank

SET INCLUDES:

14 Pilots (5/32" Shank):
0.187, 0.204, 0.213, 0.229, 1/4, 17/64, 9/32, 5/16, 21/64, 11/32, 3/8, 25/64, 13/32 & 7/16"

6 Counterbores (7/16" shank):
5/16, 3/8, 7/16,1/2, 9/16 & 5/8"

1 Holder:
3/8" Straight Shank

1 Wood Case

- High speed steel.
- Straight shank.
- 3 Flute.



21 PC SET
2007–0023

2MT SHANK - For 21 PC Counterbore Set

- Morse taper #2 shank.
- Overall length: 135mm.
- Hole Diamter: 14mm.

2007–0022



Limited Supply!

For use with our 21 pc counterbore set, accepts 14mm shank counterbores.

3-FLUTE SOLID PILOT COUNTERBORES & SETS FOR SOCKET HEAD CAP SCREWS

- 3-Flute, straight shank.
- Continuous pilot counterbores cut rapidly, smoothly and accurately, producing long spiraling chips rather than small metal particles.
- The pilot extends the full length of the flute portion of the tool.
- As cutter flutes are ground back due to wear, a new section of pilot becomes exposed.
- The pilot head may be cut off to any desired length when repeated sharpening make it too long for practical use.
- Continuous pilot counterbores have a life many times that of the conventional type counterbore.
- Set supplied with fitted wood case.





HIGH SPEED STEEL



7 PC SET (#6~1/2")
2007–0002
#6, 8, 10, 1/4, 5/16, 3/8, 1/2"



6 PC SET (1/4~3/4")
2007–0003
1/4, 5/16, 3/8, 1/2, 5/8, 3/4"

INDIVIDUALS

Item#	Cap Screw	Cutter Dia.	(Inch) Pilot Dia.	Shank Dia.	OAL
2007-0006*	#6	.242	.150	7/32	3
2007-0008	#8	19/64	11/64	1/4	3
2007-0010	#10	21/64	13/64	5/16	3-1/2
2007-0016	1/4	13/32	9/32	3/8	3
2007-0020	5/16	1/2	11/32	7/16	5
2007-0024	3/8	19/32	13/32	1/2	6
2007-0032	1/2	25/32	17/32	3/4	7-1/2
2007-0033*	5/8	31/32	21/32	3/4	7-1/2
2007-0034*	3/4	1-3/16	13/16	1	8

* Limited Supply

3 FLUTE METRIC SOLID PILOT COUNTERBORES & SET - STRAIGHT SHANK



- Continuous pilot counterbores cut rapidly, smoothly and accurately, producing long spiraling chips rather than small metal particles.
- The pilot extends the full length of the flute portion of the tool.
- As cutter flutes are ground back due to wear, a new section of pilot becomes exposed.
- The pilot head may be cut off to any desired length when repeated sharpening make it too long for practical use.
- Continuous pilot counterbores have a life many times that of the conventional type counterbore.





HIGH SPEED STEEL



6 PC SET
2007-0001
M4, M5, M6, M8, M10 & M12

INDIVIDUALS

Item#	Cap Screw	Cutter Dia.	(mm) Pilot Dia.	Shank Dia.	OAL
2007-0051*	M3	6.0	3.4	5.0	71
2007-0053*	M3.5	6.5	3.7	5.0	71
2007-0057	M5	10.0	5.5	8.0	80
2007-0060	M6	11.0	6.6	8.0	80
2007-0064	M10	18.0	11.0	12.5	100

* Limited Supply

HSS SPIRAL FLUTE TAPER PIN REAMERS

- Spiral flute taper pin reamers are used to turn a straight hole into a tapered hole for standard taper pins.
- Generally used by hand, but can also be used with a machine.
- Recommended for applications where the reamer tends to wedge itself.
- The square on the shanks of the spiral fluted are suitable for holding in a tap wrench or vise.
- The free cutting action at high speeds produces a good finish and minimizes chip packing in the flutes.



HIGH SPEED STEEL • SPIRAL FLUTE

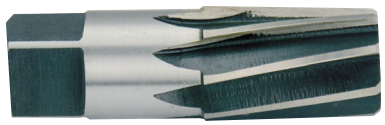


INDIVIDUALS (Inch)

Item#	Size	Shank Dia.	Diameter Small End	Diameter Large End	Flute Length	OAL
2006-2122	7/0	5/64	.0497	.0666	13/16	1-13/16
2006-2123	6/0	3/32	.0611	.0806	15/16	1-15/16
2006-2124	5/0	7/64	.0719	.0966	1-3/16	2-3/16
2006-2125	4/0	1/8	.0869	.1142	1-5/16	2-5/16
2006-2126	3/0	9/64	.1029	.1302	1-5/16	2-5/16
2006-2127	2/0	5/32	.1137	.1462	1-9/16	2-9/16
2006-2128	0	11/64	.1287	.1638	1-11/16	2-15/16
2006-2129	#1	3/16	.1447	.1798	1-11/16	2-15/16
2006-2130	#2	13/64	.1605	.2008	1-15/16	3-3/16
2006-2131	#3	15/64	.1813	.2294	2-5/16	3-11/16
2006-2132	#4	17/64	.2071	.2604	2-9/16	4-1/16
2006-2133	#5	5/16	.2409	.2994	2-13/16	4-5/16
2006-2134	#6	23/64	.2773	.3540	3-11/16	5-7/16
2006-2135	#7	13/32	.3297	.4220	4-7/16	6-5/16
2006-2136	#8	7/16	.3971	.5050	5-3/16	7-3/16
2006-2137	#9	9/16	.4805	.6055	3-1/16	8-5/16
2006-2138	#10	5/8	.5799	.7216	6-13/16	9-5/16

HSS SPIRAL FLUTE TAPER PIPE REAMERS

- Spiral flutes improve chip removal for smoother reaming.
- 3/4" per foot taper prepares holes for NPT pipe taps.
- HSS construction provides long life and reliable performance.



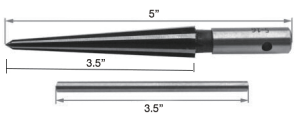
HIGH SPEED STEEL • SPIRAL FLUTE

Item#	Size	Large End Dia.	(Inch) Small End Dia.	Flute Length	Overall Length
2006-2014*	1/16	.291	.245	3/4	2
2006-2018	1/8	.362	.316	3/4	2-1/8
2006-2026	1/4	.472	.406	1-1/16	2-7/16
2006-2034	3/8	.606	.540	1-1/16	2-9/16
2006-2042	1/2	.751	.665	1-3/8	3-1/8
2006-2058	3/4	.962	.876	1-3/8	3-1/4
2006-2074	1	1.212	1.103	1-3/4	3-3/4

* Limited Supply

REPAIRMAN'S TAPER REAMER

- Removes burrs from small holes, tubing, etc.
- Enlarges holes in soft metals, plastics and similar materials.
- Number of Flutes: 7
- Sliding T-Handle length: 3.5"
- Overall Length: 5"





RANGE(SMALL END~LARGE END): 1/8~5/8"

2006-9001

STRAIGHT SHANK HSS CHUCKING REAMERS

- ANSI standard.
- Suitable for production reaming of most materials.

Item#	Size	Flute Length	OAL
2006-3004	1/16	3/8	1-1/2
2006-3008	1/8	7/8	3-1/2
2006-3009	9/64	1	4
2006-3010	5/32	1	4
2006-3012	3/16	1-1/8	4-1/2
2006-3014	7/32	1-1/4	5
2006-3015	15/64	1-1/2	6
2006-3016	1/4	1-1/2	6
2006-3020	5/16	1-1/2	6
2006-3023*	23/64	1-3/4	7
2006-3024	3/8	1-3/4	7
2006-3027*	27/64	1-3/4	7
2006-3028	7/16	1-3/4	7
2006-3031	31/64	2	8
2006-3032	1/2	2	8
2006-3036	9/16	2	8
2006-3040	5/8	2-1/4	9
2006-3044	11/16	2-1/4	9
2006-3048	3/4	2-1/2	9-1/2
2006-3100	1	2-3/4	10-1/2

- Used in general purpose though-hole applications.
- Used for reaming holes without interrupted cuts.
- High speed steel
- Straight flute.
- 45 degree lead chamfer allows gradual starting load.
- Designed for use in drill presses, turret lathes, and screw machines.



2006-3032 Shown

Over-Under Reamers

Item #	Size	Flute Length	OAL
2006-3510	.1240	7/8	3-1/2
2006-3520	.1260	7/8	3-1/2
2006-3540*	.1885	1-1/8	4-1/2
2006-3550	.2490	1-1/2	6
2006-3560	.2510	1-1/2	6
2006-3590	.3740	1-3/4	7
2006-3600	.3760	1-3/4	7
2006-3630	.4990	2	8
2006-3640	.5010	2	8

* Limited Supply

HSS CHUCKING REAMER SETS - HIGH SPEED STEEL • STRAIGHT SHANK • STRAIGHT FLUTES

- Chucking reamers are general-purpose cutting tools that are used for lathes or drill presses. Straight flutes and a solid shank allows them to be securely held in the chuck of a machine.
- Chucking reamers are often used when high accuracy and a smooth finish are required.
- Used in general purpose though-hole applications.
- Used for reaming holes without interrupted cuts.



14 PC Shown

14 PC SET
2006–0001
.1240 ~ .5010"

14 PC SET INCLUDES:
.1240, .1260, .1865, .1885, .2490, .2510, .3115, .3135, .3740, .3760, .4365, .4385, .4995 & .5010"



29 PC Shown

29 PC SET
2006–0011
1/16~1/2" x 64ths



7 PC Shown

7 PC SET
2006–0007
1/8~1/2" x 16ths

CARBIDE STRAIGHT SHANK CHUCKING REAMERS



CARBIDE HEAD

STRAIGHT FLUTE

MADE IN USA

- Carbide reamers are cutting tools used in machining and metalworking to enlarge, shape, or finish holes in various materials, especially metals, including steel and alloys up to RC40, Stainless, Aluminum, Brass, Bronze, and Plastics. They are designed for precision hole-making in tough materials such as high-strength steels, stainless steels, and other alloys. Carbide reamers are typically used in machining operations where a high level of accuracy and surface finish is required.
- Reamers with a solid carbide head are precision cutting tools used primarily in metalworking applications to enlarge and finish drilled holes to a specific size and tolerance. Offers precision, durability, and versatility for enlarging and finishing drilled holes to precise dimensions in metalworking applications.
- Straight flute.
- 45 degree lead chamfer allows gradual starting load.

Item#	Size	Flute Length	OAL
2006-5004	1/16	3/8	1-1/2
2006-5007	1/8	5/8	2-1/4
2006-5010	5/32	3/4	2-1/2
2006-5012	3/16	7/8	2-3/4
2006-5014	7/32	1	3
2006-5015	15/64	1	3
2006-5016	1/4	1	3
2006-5020	5/16	1-1/8	3-1/4

Item#	Size	Flute Length	OAL
2006-5024	3/8	1-1/4	3-1/2
2006-5028	7/16	1-3/8	4
2006-5032	1/2	1-1/2	4
2006-5036	9/16	2-1/4	5
2006-5040	5/8	1-3/4	4
2006-5044	11/16	1-3/4	4
2006-5048	3/4	1-3/4	4

HSS ADJUSTABLE BLADE REAMERS & SETS

Designed for standard reaming applications where flexibility and cost efficiency are key.
Adjustable blades allow a single tool to cover a range of hole sizes, making these ideal for maintenance and general-purpose machining.

- High Speed Steel (HSS) construction
- Adjustable blades for precise size control within range
- Straight flute design for smooth, stable cutting action
- Improved blade fit and alignment
- Tighter manufacturing tolerances
- Available in individual sizes and sets
- Covers wide diameter ranges with fewer tools


2006-0024 Shown

Benefits:

- Greater accuracy and repeatability
- Improved surface finish
- More consistent performance across applications
- Better tool life and stability
- Ideal upgrade from economy-grade tooling

HIGH SPEED STEEL


2006-9120 Shown


2006-9123 Shown


2006-9125 Shown

Recommended Applications:

- Production environments, precision machining, and shops requiring consistent hole sizing, improved finish, and dependable repeatability.


2006-0026 Shown


2006-0028 Shown

VALUE SETS

Item#	Range	No. of Pieces	Capacity Range
2006-9120*	#4/A - 2/A	3	3/8~15/32"
2006-9123	#8/A - 2/A	7	1/4~15/32"
2006-9125	A - F	6	15/32~27/32"

* Limited Supply

HHiP SETS

Item#	Size	Set	Capacity Range
2006-0024	#8/A - 5/A	4	1/4~3/8"
2006-0026	A-H(15/32~1-1/16")	8	15/32~1-1/16"
2006-0028*	A-K(15/32~1-1/2")	11	15/32~1-1/2"

* Limited Supply

STRAIGHT FLUTE REAMERS SHOULD BE USED IN THRU-HOLE APPLICATIONS ONLY





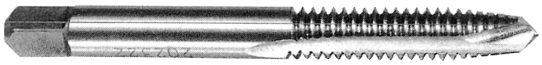
INDIVIDUALS

Size	Range	OAL	VALUE Item#	HHiP Item#
#8/A	1/4 to 9/32	3-1/4	**2006-9170***	**2006-0070***
#7/A	9/32 to 5/16	3-1/2	**2006-9172***	**2006-0072**
#6/A	5/16 to 11/32	4-1/8	**2006-9173***	----------
#5/A	11/32 to 3/8	4-3/8	**2006-9174***	**2006-0074***
#4/A	3/8 to 13/32	4-3/4	**2006-9175***	**2006-0075***
#3/A	13/32 to 7/16	5	**2006-9176***	**2006-0076***
#2/A	7/16 to 15/32	5-1/4	**2006-9177***	**2006-0077***
A	15/32 to 17/32	5-1/2	----------	**2006-0078**
B	17/3219/32	5-3/4	**2006-9179**	**2006-0079**
C	19/32 to 21/32	6-1/2	**2006-9180**	**2006-0080**
D	21/32 to 23/32	6-3/4	**2006-9181**	----------
E	23/32 to 25/32	7	**2006-9182**	**2006-0082***
F	25/32 to 27/32	7-3/8	**2006-9183***	**2006-0083***
G	27/32 to 15/16	8	**2006-9184**	**2006-0084**
H	15/16 to 1-1/16	9	**2006-9185**	**2006-0085**
I	1/1/16 to 1-3/16	10	**2006-9186**	**2006-0086**
J	1-3/16 to 1-11/32	11	**2006-9187**	**2006-0087**
K	1-11/32 to 1-1/2	12	**2006-9188**	**2006-0088**
L	1-1/2 to 1-13/16	14	**2006-9189**	**2006-0089**
M	1-13/16 to 2-7/32	16	**2006-9190**	**2006-0090**

* Limited Supply

SPIRAL POINT TAPS - Plug Type

GROUND FROM SOLID
FOR THROUGH HOLES



GROUND THREAD, HIGH SPEED STEEL

Item#	Size	H Limit/Flute
1011-6004	0~80NF	H-2/2
1011-6006	1~64NC	H-1/2
1011-6012*	1~72NF	H-2/2
1011-6014	2~56NC	H-2/2
1011-6016*	2~64NF	H-2/2
1011-6018*	3~48NC	H-2/2
1011-6020*	3~56NF	H-2/2
1011-6022*	4~40NC	H-2/2
1011-6026*	4~48NF	H-2/2
1011-6028*	5~40NC	H-2/2
1011-6032*	5~44NF	H-2/2
1011-6040*	6~40NF	H-2/2
1011-6042	8~32NC	H-2/2
1011-6044*	8~32NC	H-3/2
1011-6048*	8~36NF	H-2/2
1011-6050	10~24NC	H-2/2
1011-6058	10~32NF	H-3/2
1011-6062*	12~24NC	H-3/2
1011-6064*	12~28NF	H-3/2
1011-6074	1/4"~20NC	H-3/3
1011-6078*	1/4"~28NF	H-3/3
1011-6094	5/16"~18NC	H-3/3
1011-6102*	5/16"~24NF	H-3/3
1011-6106	3/8"~16NC	H-3/3
1011-6112*	3/8"~24NF	H-3/3
1011-6114*	7/16"~14NC	H-3/3
1011-6120*	7/16"~20NF	H-3/3
1011-6122	1/2"~13NC	H-3/3
1011-6126	1/2"~20NF	H-3/3
1011-6130*	9/16"~12NC	H-3/3
1011-6136*	9/16"~18NF	H-3/3
1011-6138*	5/8"~11NC	H-3/3
1011-6142*	5/8"~18NF	H-3/3
1011-6146*	11/16"~11NS	H-3/3
1011-6148*	11/16"~16NS	H-3/3
1011-6150*	3/4"~10NC	H-3/3
1011-6154*	3/4"~16NF	H-3/3
1011-6160*	7/8"~9NC	H-4/4
1011-6164*	7/8"~14NF	H-4/4
1011-6168*	1"~8NC	H-4/4
1011-6170*	1"~12NF	H-4/4

* Limited Supply

SPIRAL FLUTE TAPS - Bottom Type

GROUND THREAD, HIGH SPEED STEEL



FOR BLIND HOLES
GROUND FROM SOLID

Item#	Size	H Limit/Flute
1011-8505	4-40NC	H-2/2
1011-8513	6-32NC	H-3/2
1011-8517*	8-24NC	H-3/2
1011-8518	8-32NC	H-3/2
1011-8609	10-24NC	H-3/2
1011-8610	10-32NF	H-3/2
1011-8613	1/4"-20NC	H-3/3
1011-8614*	1/4"-28NF	H-3/3
1011-8615*	5/16"-18NC	H-3/3
1011-8616*	5/16"-24NF	H-3/3
1011-8617	3/8"-16NC	H-3/3
1011-8618*	3/8"-24NF	H-3/3
1011-8621	1/2"-13NC	H-3/3
1011-8622*	1/2"-20NF	H-3/3
1011-8626*	5/8"-11NC	H-3/3
1011-8628*	3/4"-10NC	H-3/3
1011-8629*	3/4"-16NF	H-3/3

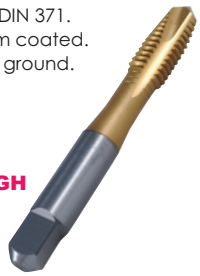
* Limited Supply

METRIC SPIRAL POINT TIN COATED TAPS - Plug

GROUND FROM SOLID

GROUND FROM SOLID, HIGH SPEED STEEL

- Spiral point.
- Metric DIN 371.
- Titanium coated.
- Thread ground.



FOR THROUGH HOLES

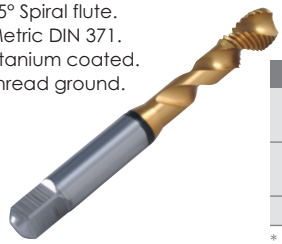
Item#	Size	Limit
1011-7699*	M2.5-0.45	D3
1011-7701	M3-0.5	D3
1011-7702	M4-0.7	D4
1011-7703	M5-0.8	D4
1011-7704	M6-1.0	D5
1011-7705	M8-1.25	D5
1011-7706*	M10-1.25	D5
1011-7707*	M10-1.50	D6
1011-7708	M12-1.75	D6

* Limited Supply

METRIC 35° SPIRAL FLUTE TIN COATED TAPS - Bottom

GROUND FROM SOLID, HIGH SPEED STEEL

- 35° Spiral flute.
- Metric DIN 371.
- Titanium coated.
- Thread ground.



FOR BLIND HOLES

Item#	Size	Limit
1011-7753	M3-0.5	D3
1011-7754	M4-0.7	D4
1011-7756*	M6-1.0	D5
1011-7759	M10-1.25	D5
1011-7760*	M10-1.50	D6

* Limited Supply

STANDARD HAND TAPS



Limited Supply!

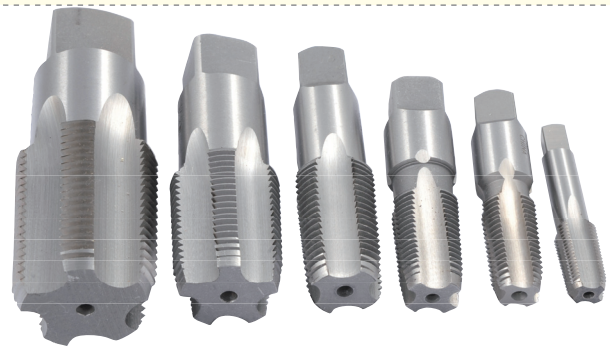
TAPER: 7-10 THREAD CHAMFER
PLUG: 3-5 THREAD CHAMFER
BOTTOM: 1-2 THREAD CHAMFER

GROUND THREAD, HIGH SPEED STEEL

Size	No. of Flutes	Thread Limit	*Taper* Item#	*Bottom* Item#	*Plug* Item#
4-40NC	3	H2	1012-0440	----------	----------
8-32NC	3	H3	1012-0832	----------	----------
10-32NF	4	H3	1012-1032	1014-1032	----------
1/4-20NC	4	H3	----------	----------	----------
1/4-28NF	4	H3	1012-2528	1014-2528	----------
7/16-20NF	4	H3	----------	----------	1013-4320
1/2-13NC	4	H3	1012-5013	----------	1013-5013
1/2-20NF	4	H3	1012-5020	1014-5020	1013-5020

6 PC TAPER PIPE (NPT) TAP SET

This HHIP 6 pc taper pipe tap set is made of carbon steel covering a size range of 1/8 to 1 inch, offering versatility and durability for various pipe threading applications.



- ***Tap Size Range:*** Provides a comprehensive solution for various pipe threading needs.
- ***Taper Rate:*** Designed with a 3/4 inch per foot taper rate for gradual threading, ensuring a secure and leak-resistant pipe connection.
- ***Material:*** Crafted from carbon steel, ensuring longevity and reliability in challenging working conditions.
- ***Versatile Applications:*** Ideal for a wide range of applications requiring NPT threads, from plumbing to industrial pipe fitting.
- ***Fitted Case:*** included

GROUND THREAD, CARBON STEEL

6 PC SET
1011-3307
Includes: 1/8~27, 1/4~18, 3/8~18, 1/2~14, 3/4~14 & 1~11-1/2

TAPER PIPE (NPT) TAPS

- Cuts internal threads in pipes.
- Tapered at a rate of 3/4" per foot.
- Ideal for pipe fitting





GROUND THREAD, HIGH SPEED STEEL

Size	No. of Flutes	Thread Length	Overall Length	HSS Item#	TiN Coated Item#
1/16~27	4	11/16	2-1/8	----------	1011-3305
1/8~27	4	3/4	2-1/8	1011-3211	1011-3310
1/4~18	4	1-1/16	2-1/8	1011-3215	1011-3315
3/8~18	4	1-1/16	2-7/16	1011-3220	1011-3320*
1/2~14	4	1-3/8	2-9/16	1011-3225	1011-3325
3/4~14	5	1-3/8	3-1/8	1011-3230	1011-3330
1~11-1/2	5	1-3/4	3-1/4	----------	1011-3335*

* Limited Supply

TAPER PIPE (NPT) TAP SETS



- Cuts internal threads in pipes.
- Ideal for pipe fitting.
- Tapered at a rate of 3/4" per foot.
- Case included.

3 PC SET
1011-3303
1-1/4~11-1/2, 1-1/2~11-1/2, 2~11-1/2

6 PC SET
1011-3306
1/4~18, 3/8~18, 1/2~14, 3/4~14, 1~11-1/2, 1-1/4~11-1/2

GROUND THREAD, HIGH SPEED STEEL

HEXAGON PIPE (NPT) TAP & DIE SET

- Ideal for cutting right-hand external pipe threads.
- Hex head shape die is designed for use in die stocks or adjustable wrenches.
- Each NPT tap & die is etched with the size for easy reference.
- Supplied with solid wood case.
- Includes one of each of the following NPT tap & dies: 1/8~27, 1/4~18, 3/8~18, 1/2~14, 3/4~14 & 1~11-1/2

GROUND THREAD, HIGH SPEED STEEL

12 PC SET
Range 1/8 ~ 1"
1011-3312



6 PC TAPER PIPE (NPT) TAP & DIE SET

- Right hand NPT pipe thread.
- For use in hand operations.
- Made of carbon steel.
- Tap Chamfer: 2-3 threads.
- Die Chamfer: 1.5 threads.
- Supplied with fitted case.

6 PC SET
1011–3313



6 PC set includes one of each tap & die:
1/4~18, 3/8~18, 1/2~14

HEX RETHREADING DIES



CARBON STEEL, RIGHT HAND

Size	Item#
1/4~20	1017-1717
1/4~28	1017-1718
5/16~18	1017-1719
5/16~24	1017-1720*
3/8~16	1017-1721
3/8~24	1017-1722
7/16~14	1017-1723
7/16~20	1017-1724
1/2~13	1017-1725
1/2~20	1017-1726
9/16~12	1017-1727*
9/16~18	1017-1728
5/8~11	1017-1729
5/8~18	1017-1730
3/4~10	1017-1733
3/4~16	1017-1734
1~8	1017-1737
1~14	1017-1739

* Limited Supply

16 PC HEXAGON RETHREADING DIE SET

- Right hand.
- Supplied with fitted metal case.

16 PC Includes:
1/4~20, 1/4~28, 5/16~18, 5/16~24, 3/8~16, 3/8~24, 7/16~14, 7/16~20, 1/2~13, 1/2~20, 9/16~12, 9/16~18, 5/8~11, 5/8~18, 3/4~10 & 3/4~16.



16 PC SET
Range 1/4~3/4"
NC&NF
1017–0016

CARBON STEEL, RIGHT HAND

HEXAGON PIPE (NPT) DIES

- Ideal for cutting right-hand external pipe threads.
- Hex head shape die is designed for use in die stocks or adjustable wrenches.
- Each NPT die is etched with the size for easy reference.

CARBON STEEL, RIGHT HAND

Size	Item#
1/4~18	1017-1802*
3/8~18	1017-1804
1/2~14	1017-1806
3/4~14	1017-1808
1~11-1/2	1017-1810*

* Limited Supply



7 PC HEXAGON RETHREADING DIE SET - Metric

- Right hand.
- Supplied with fitted metal case.

7 PC Includes:
M6x1.00, M8x1.25, M10x1.50, M12x1.75, M14x2.00, M16x2.00 & M20x2.50

CARBON STEEL, RIGHT HAND

7 PC SET
Range M6~M20
1017–0007



20 PC HEXAGON RETHREADING DIE SET

- Right hand.
- Supplied with fitted metal case.

CARBON STEEL, RIGHT HAND

20 PC Includes:
1/4~20, 1/4~28, 5/16~18, 5/16~24, 3/8~16, 3/8~24, 7/16~14, 7/16~20, 1/2~13, 1/2~20, 9/16~12, 9/16~18, 5/8~11, 5/8~18, 3/4~10, 3/4~16, 7/8~9, 7/8~14, 1~8 & 1~14.

20 PC SET
Range 1/4 ~ 1"
NC&NF
1017–0020



DIES, TAP & DIE SETS

ADJUSTABLE HSS ROUND SPLIT DIES

HIGH SPEED STEEL, RIGHT HAND

Applications:
- General maintenance
- Occasional repair work
- Field service

- Carbon steel construction
- Adjustable split design

- Cost-effective for general use
- Suitable for softer materials



HIGH SPEED STEEL
RIGHT HAND

13/16" O.D.

Size	Item#
4~40	**1016-1014***
6~32	**1016-1022***
6~40	**1016-1024***
8~32	**1016-1026**
8~36	**1016-1027**
10~24	**1016-1030**
10~32	**1016-1032**
1/4~20	**1016-1040**
1/4~28	**1016-1042***
5/16~18	**1016-1044***
5/16~24	**1016-1045***

1" O.D.

Size	Item#
6~32	**1016-1122**
6~40	**1016-1124***
8~36	**1016-1128***
10~32	**1016-1132***
1/4~20	**1016-1140**
1/4~28	**1016-1142**
5/16~18	**1016-1144**
5/16~24	**1016-1146**
3/8~16	**1016-1148**
7/16~14	**1016-1152***
7/16~20	**1016-1154**
1/2~13	**1016-1156**
1/2~20	**1016-1158**

1-1/2" O.D.

Size	Item#
1/4~20	**1016-1240***
1/4~28	**1016-1242***
5/16~18	**1016-1244**
3/8~16	**1016-1248***
3/8~24	**1016-1250**
7/16~14	**1016-1252**
7/16~20	**1016-1254***
1/2~13	**1016-1258**
1/2~20	**1016-1260**
9/16~12	**1016-1262***
9/16~18	**1016-1264***
5/8~11	**1016-1266**
5/8~18	**1016-1268***
3/4~10	**1016-1270***
3/4~16	**1016-1272***

2" O.D.

Size	Item#
3/8~16	**1016-1348***
1/2~13	**1016-1356***
5/8~11	**1016-1364***
3/4~10	**1016-1368**

* Limited Supply

60 PC HSS METRIC/INCH TAP & DIE SET

- NC, NF and NPT threads
- 1" O,D, dies
- Adjustable die stock
- Adjustable handle tap wrench
- T-handle tap wrench
- Screwdriver
- Two screw pitch gages



CARBON STEEL

60 PC SET
1011–0106

INCLUDES:
27 tap & die sizes: 1/4-20NC, 5/16-18NC, 3/8-16NC, 7/16-14NC, 1/2-13NC, 4-40NC, 6-32NC, 8-32NC, 10-24NC, 12-24NC, 1/4-28NF, 5/16-24NF, 3/8-24NF, 7/16-20NF, 1/2-20NF, 10-32NF, 1/8-27NPT, 3mmx0.5, 4mmx0.7, 5mmx0.8, 6mmx1.0, 7mmx1.0, 8mmx1.25, 9mmx1.25, 10mmx1.5, 10mmx1.0, and 12mmx1.75.

PLASTIC CASE FOR 110 PC TAP & DIE SET (REPLACEMENT)

- Durable plastic case.
- For 110 pc tap & die set
- Case only.



REPLACEMENT CASE FOR 110 PC SET
1011–0111CASE

FITS:
1 taper tap, 1 bottoming tap and die in each of the following sizes:
4-40, 6-32, 8-32, 10-24, 12-24, 10-32, 1/4-20, 1/4-24, 1/4-28, 1/4-32, 5/16-18, 5/16-24, 3/8-16, 3/8-24, 7/16-14, 7/16-20, 1/2-13, 1/2-20, 9/16-12, 9/16-18, 5/8-11, 5/8-18, 3/4-10, 3/4-16, 1/8-27NPT, 1/4-18NPT,
M6x1.0, M8x1.25, M10x1.0, M10x1.5, M11x1.5, M12x1.25, M12x1.75, M14x1.25 & M18x1.5
1" O.D. die stock, 1-1/2" O.D. die stock, No. 4 adjustable tap wrench, No. 6 adjustable tap wrench,T-handle tap wrench

110 PC TAP & DIE COMBO SETS

- Organized storage case
- Wide range of sizes included
- Designed for repeated use

HIGH SPEED STEEL
1011–0110

High Speed Steel for:
- Longer tool life
- Handles tougher materials
- For professional use

Carbon Steel for:
- Lower cost
- Best for light-duty work
- Occasional use

CARBON STEEL
1011–0111

INCLUDES:
1 taper tap, 1 bottoming tap and die in each of the following sizes:
4-40, 6-32, 8-32, 10-24, 12-24, 10-32, 1/4-20, 1/4-24, 1/4-28, 1/4-32, 5/16-18, 5/16-24, 3/8-16, 3/8-24, 7/16-14, 7/16-20, 1/2-13, 1/2-20, 9/16-12, 9/16-18, 5/8-11, 5/8-18, 3/4-10, 3/4-16, 1/8-27NPT, 1/4-18NPT, M6x1.0, M8x1.25, M10x1.0, M10x1.5, M11x1.5, M12x1.25, M12x1.75, M14x1.25 & M18x1.5
1" O.D. die stock, 1-1/2" O.D. die stock, No. 4 adjustable tap wrench, No. 6 adjustable tap wrench, T-handle tap wrench and case.

REPLACEMENT CASE (Item#1011-0111CASE)



22 PC HSS TAP & DIE SET - INCH

- Organized storage case
- Wide range of sizes included
- Designed for repeated use
- Wood case included

High Speed Steel for:
- Longer tool life
- Handles tougher materials
- For professional use



INCLUDES:
1/4-20, 1/4-28, 5/16-18, 5/16-24, 3/8-16, 3/8-24, 7/16-14, 7/16-20, 1/2-13, 1/2-20 Plug Tap and Die each, 1" OD Adjustable Die Stock, T-Handle Tap Wrench.

Range 1/4 ~ 1/2"
1011-0007

HIGH SPEED STEEL

44 PC HSS TAP & DIE SET - METRIC

- Organized storage case
- Wide range of sizes included
- Designed for repeated use
- Wood case included

High Speed Steel for:
- Longer tool life
- Handles tougher materials
- For professional use

INCLUDES:
20 Sizes Tap & Die Each: M2x0.4, M2.5x0.45, M3x0.50, M4x0.70, M5x0.80, M6x1.0, M7x1.0, M8x1.0, M8x1.25, M10x1.0,M10x1.25, M10x1.5, M12x1.0, M12x1.25, M12x1.50, M12x1.75, M14x1.5, M14x2.0, M16x2.0, M18x1.5, 1" & 1-1/2" OD (M14-M18) Adjustable Die Stock, 2 Tap Wrench.

HIGH SPEED STEEL

Range M2 ~ M18
1011-0009



41 PC HIGH SPEED STEEL TAP & DIE SETS

- Hexagon shaped dies
- Organized storage case
- Wide range of sizes included
- Designed for repeated use
- Plastic case with index marked included

High Speed Steel for:
- Longer tool life
- Handles tougher materials
- For professional use

HIGH SPEED STEEL

Range: #4-1/2" Size and Threads per inch	Screw Pitch	Taps	Dies	Die Stock	"T" Holder	Tap & Reamer Wrench	Screw Driver
NC 4~40, 6~32, 8~32, 10~24, 12~24, 1/4~20, 5/16~18, 3/8~16, 7/16~14, 1/2~13 NF 10~32, 1/4~28, 5/16~24, 3/8~24, 7/16~20, 1/2~20 NPT 1/8"~27R	1	17	17	1	2	1	1
Range: 3mm-12mm							
3 x 0.50 6 x 0.75 10 x 1.25 3 x 0.60 6 x 1.00 10 x 1.50 4 x 0.70 7 x 0.75 12 x 1.50 4 x 0.75 7 x 1.00 12 x 1.75 5 x 0.80 8 x 1.00 5 x 0.90 8 x 1.25 NPT-1/8"-27	1	17	17	1	2	1	1



Range 3~12mm
1011-0005

Range #4~1/2"
1011-0004

45 PC HIGH SPEED STEEL TAP & DIE SETS



- Organized storage case
- Wide range of sizes included
- Designed for repeated use
- Plastic case with index marked included

HIGH SPEED STEEL

Range 1/4~1"
1011-0001

Range 6~24mm
1011-0002

TiN COATED
Range 1/4~1"
1011-0003



Range: 1/4" -1" Size and Threads per inch	Taps	Dies	Die Stock	"T" Holder	Screw Driver
NC 1/4~20, 5/16~18, 3/8~16, 7/16~14, 1/2~13, 1~1/2" O.D. 9/16~12, 5/8~11, 3/4~10, 7/8~9, 1~8 NF 1/4~28, 5/16~24, 3/8~24, 7/16 ~20, 1/2~20 2" O.D. 9/16~18, 5/8~18, 3/4~16, 7/8~14, 1~14	20	20	2	2	1
Range: 6mm-24mm					
6 x 0.75 6 x 1.00 8 x 1.00 8 x 1.25 10 x 1.25 10 x 1.50 12 x 1.50 12 x 1.75 14 x 1.50 14 x 2.00 16 x 1.50 16 x 2.00 18 x 1.50 18 x 2.50 20 x 1.50 20 x 2.50 22 x 1.50 22 x 2.50 24 x 1.50 24 x 3.00	20	20	2	2	1

REPLACEMENT CASE (Item#1011-0002CASE)

DIE ACCESSORIES

MORSE TAPER UNIVERSAL TAILSTOCK DIE HOLDER SETS

- Used for lathe tailstock or other applications with MT shank.
- The set includes tapered shank & 4 flat die holders.
- Easy to put on and take off with the help of the handle screwed on.



Item#	Taper	Die Holder Size
3906-4902	MT 2	13/16,1,1-5/16 & 1-1/2"
3906-4903	MT 3	13/16,1,1-5/16 & 1-1/2"

MORSE TAPER TAILSTOCK DIE HOLDER SETS

- The set includes tapered Shank, Pin Punch & 4 sizes of Die Holders.
- Completely interchangeable to fit tapered shank with the help of a pin which allows about 1-1/2" travel.
- Easy knock out pin with a pin punch.
- Tang end.



Item#	Taper	Die Holder Size
3906-4910	MT 2	13/16,1,1-5/16 & 1-1/2"
3906-4911	MT 3	13/16,1,1-5/16 & 1-1/2"

STRAIGHT SHANK DIE HOLDER

- Straight shank die holder for hand operations as well as for machines.
- Knurling body is provided for easy handlings.
- A durable and versatile solution for securely holding up to 25mm dies with a 10mm shank, ensuring reliable performance.
- Durable construction for longevity.
- Robust design for reliability.
- Fits machines with a 10mm chuck.
- Uses 13/16 & 1" O.D. round adjustable dies.
- Reliable performance in die-holding applications.
- Die capacity: 25mm
- Shank dia. 10mm

3906-4901



3 PC FLOATING DIE HOLDER SET

- One piece construction
- Total length 3"

3900-0223

Limited Supply!



Die Dia.	Body D x Length	Shank
13/16	1-1/2"x1	1/2
1	1-1/2"x1	1/2
1-1/2	2"x 1-1/4	3/4

IDEAL FOR SHORT OR MEDIUM-RUN THREADING OF SHAFTS !

9 PC MORSE TAPER TAILSTOCK DIE HOLDER SET

- **Precision Morse Taper Shanks** – Main shank is precision-ground with MT2 & MT3 compatibility, ensuring accurate alignment with the lathe centerline.
- **Floating Action for Accurate Threading** – Die holder body slides on a parallel shaft, allowing the die to self-advance and reverse smoothly during threading operations.
- **Hardened Tool Steel Construction** – Made from hardened, ground alloy tool steel for durability, wear resistance, and long service life.
- **Wide Die Size Compatibility** – Includes collets for 16mm, 20mm, 25mm, 30mm & 38mm round dies to cover common threading sizes.





9 PC SET
3906-4914

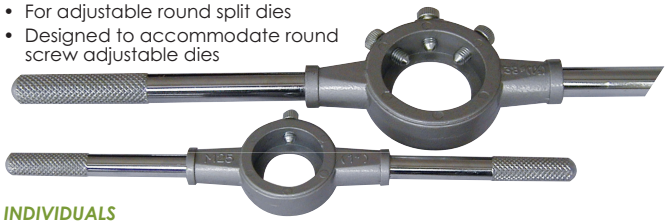


Includes:

- 2 Drill Sleeves: MT2 & MT3
- 2 Cartridges: for 16mm & 20mm Round Dies.
- 3 Collets: for 25mm, 30mm & 38mm Round Dies.
- 1 Ejecting Drill Drift
- 1 Pin Punch
- Fitted case.

DIE STOCKS

- For adjustable round split dies
- Designed to accommodate round screw adjustable dies



INDIVIDUALS

Item#	Size No.	Die O.D.	Length
3900-0225	2	13/16"	6-1/2"
3900-0226	3	1"	8-1/2"
3900-0227	5	1-1/2"	12"
3900-0228	6	2"	15"
3900-0229	7	2-1/2"	19"

4 PC SET
3900-0233*
No.2, 3, 5 & 6

* Limited Supply

ADJUSTABLE TAP & REAMER WRENCHES & SET

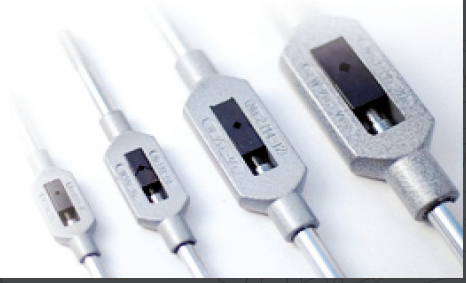
- Adjustable jaws fit multiple tap sizes
- Knurled steel handles for grip
- Hardened jaws for wear resistance
- Zinc die-cast body
- Available in multiple size ranges



Used for holding taps for manual threading, holding reamers for finishing holes and general machine shop, maintenance, and repair work.

Item#	Size	Range For Hand Taps	Range For Pipe Taps	OAL
3900-0209	#0	0~1/4"	None	5"
3900-0210	#1-1/2	1/16~1/2"	None	7"
3900-0232	#2	1/64~15/32"	1/8"	11"
3900-0211	#3	3/16~3/4"	1/8~3/8"	15"
3900-0235	#4	1/4~1-1/8"	1/8~3/4"	19"
3900-0237	#5	1/2~1-1/4"	1/4~1"	30"

4 PC SET
#0, 1-1/2, 3, 4
3900-0236



ADJUSTABLE TAP & REAMER WRENCHES & SET

- **Adjustable Jaw Design** – Allows for a secure grip on various tap and reamer sizes.
- **Heavy-Duty Construction** – Rugged drop forged construction for durability and long-lasting use. Hardened jaws for increased resistance to wear.
- **Long Handle** – Provides better leverage and control for precise threading.
- **Self-Centering Jaws** – Ensures even clamping pressure to prevent slippage.
- **Knurled Handle** – Enhances grip and prevents slipping during use.

3PC Set Includes (range for hand taps):
1/16~1/4"(M2~M6), 1/16~3/8"(M2.5~M8) & 5/32~1/2"(M4~M9)

Tap & Reamer Wrenches are designed for securely holding taps and reamers during threading and finishing operations.

HEAVY DUTY



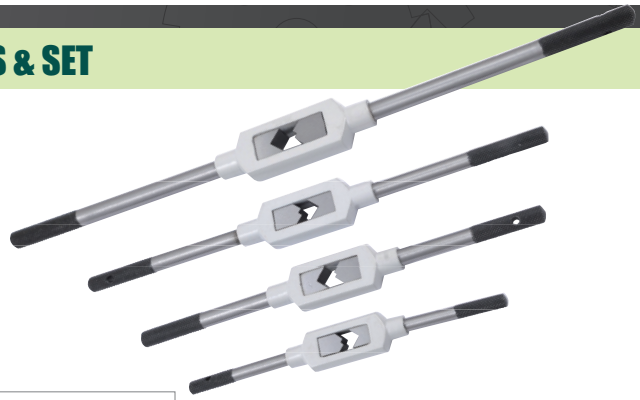
Item#	Tap Capacity Hand Taps	Tap Capacity Hand Taps	OAL
3906-0255	1/16~1/4"	M2~M6	7"
3906-0256	1/16~3/8"	M2.5~M8	9"
3906-0257	5/32~1/2"	M4~M9	11"
3906-0258	1/4~3/4"	M4.9~M12	15"
3906-0259	1/4~1-1/8"	M5.5~M16	20"
3906-0260	3/4~1-1/2"	M9~M25	40"

3 PC SET
1/16~1/2"
3906-0239

HEAVY DUTY ADJUSTABLE TAP & REAMER WRENCHES & SET

- **Adjustable Jaw Mechanism** – Securely accommodates various tap and reamer sizes for versatile use.
- **Rugged Construction** – Drop-forged design ensures durability, with hardened jaws for enhanced wear resistance.
- **Extended Handle** – Offers superior leverage and control for accurate threading.
- **Self-Centering Jaws** – Distributes clamping pressure evenly to minimize slippage.
- **Knurled Grip** – Provides a non-slip surface for improved handling and stability.

Tap & Reamer Wrenches are built to firmly hold taps and reamers for precise threading and finishing tasks.



Item#	Tap Capacity Hand Taps	Tap Capacity Hand Taps	OAL
3906-0211	5/32~3/4"	M6~M22	15"
3906-0212	5/16~1"	M8~M25	19"
3906-0235	5/16~1-1/8"	M8~M28	19"

4 PC SET
1/4~3/4"
3906-0240

4 PC Set Includes(range for hand taps):
1/16~1/4"(M2~M6), 1/16~3/8"(M2~M10)
5/32~1/2"(M6~M12) & 5/32~3/4"(M6~M20)

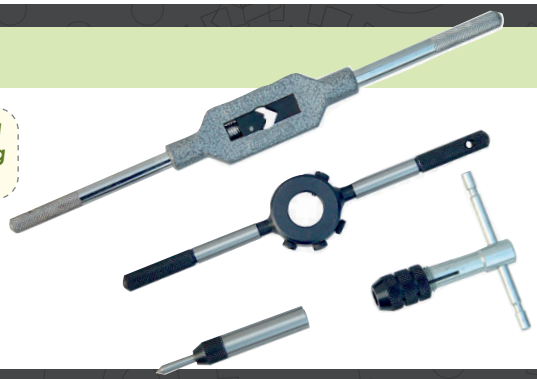
4 PC TAP & DIE ACCESSORY SET

Set includes 1 each:

- **Adjustable Tap & Reamer Wrench** 1/8-1/2" tap capacity. Rugged drop forged construction for durability and long-lasting use. Hardened jaws for increased resistance to wear.
- **Die Stock Handle** 1" capacity. Made from durable materials for long-lasting performance.
- **Spring Loaded Tap Guide** 3/16" diameter pin and 1/2" hardened shank. Start every tap with this tool.
- **T-Handle Tap Wrench** 1/4" capacity. Made of tool steel, hardened and ground

This set firmly holds taps and reamers for precise threading and finishing tasks.

4 PC SET
3906-0242



TAP ACCESSORIES

SPRING-LOADED TAP GUIDES

- Adjustable tension spring
- Reversible tension pin for male and female hole centering or tapping
- 1/2" dia. hardened shank, knurled for easy handling
- 3/16" dia. hardened tension pin

VALUE
3906–0215

FOR DRILL PRESSES & MILLS



HHIP
3900–0215

TAP GUIDE TOOL - SPRING CENTERED

- Spring centered tap guide tool to align tap for threading, lathe, mill or jig bore.
- Point hardened up to 50-55 HRC
- Shank Diameter: 1/2"
- For use with drill chucks to stroke the hardened point for accurate hand topped thread.



TIPS:
The center's body should be gripped in a drill chuck or collet, while the hardened point is inserted into the middle of the tapping handle. The stroke of the center will follow the tap, assuring straight and accurate hand tapped threads, One universal size for all tapping applications.

3906–0220

TAP GUIDE COMBO SET

SPRING CENTERED TAP GUIDE *(3906-0220)*

- The spring-centered tap guide has a 1/2" diameter hardened shank.



SPRING-LOADED TAP GUIDE *(3900-0215)*



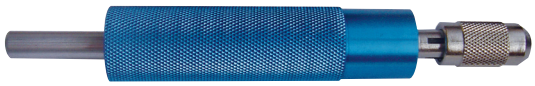
TAP GUIDE SET
9999–0050

- The spring-loaded tap guide has a 3/16" diameter, hardened tension pin that is adjustable.
- This guide also has a 1/2" diameter hardened shank that is knurled for batter grip.

MACHINE TAPPING GUIDE

- Provide sensitive feel for hand tapping small holes on mills and drill presses
- Starts every hole straight and prevents tap breakage
- Shank dia. 3/8"
- Handle dia. 1"
- Tap capacity #0-12

3900–0220



TAP WRENCH EXTENSIONS

Used for reaching deep holes where standard tap wrenches won't fit, accessing confined or obstructed work areas, holding taps securely while extending working distance and used in maintenance, repair, and production environments.



- Precision-machined extension shafts
- Two-jaw chuck securely grips tap shank
- Extends reach for deep or hard-to-access holes
- Available in multiple lengths and capacities
- Standard shank sizes (3/8" & 1/2") for compatibility

#12~1/2" Capacity Shown



Item#	Tap Capacity	Length	Shank
3900-0218	#0 ~ 12	7"	3/8"
3900-0219	#12 ~ 1/2"	10-3/4"	1/2"

RATCHET T-HANDLE TAP HOLDERS & SET



- Ratcheting type.
- This tap holder is made of tool steel, hardened and ground.
- Can be used for holding taps, reamers.

3 PC SET
#0~1/2"
3900–0240

Item#	Body Length	Capacity for Tap Size	Square Shank
3900-0241	2-1/8"	1/16~3/16"	1/16~5/32"
3900-0245	2-5/8"	7/32~7/16"	5/32~1/4"
3900-0248	3-1/2"	1/4~1/2"	3/16~5/16"

4 PC INTERCHANGEABLE REVERSIBLE TAP WRENCH SET

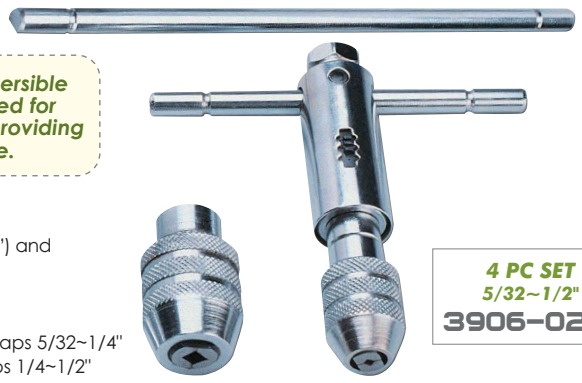
INTERCHANGEABLE TAP CHUCKS

- **Interchangeable Tap Holders** – Accommodates various tap sizes for a wide range of threading applications. (5/32-1/4" & 1/4-1/2")
- **Reversible Ratcheting Mechanism** – Allows for quick direction changes (forward, reverse, and neutral) without repositioning.
- **Handle** – Designed for comfort and better torque control. Includes 4" & 7" handles.
- **Adjustable Jaw Grip** – Securely holds taps of different sizes for precise threading.
- **Versatile Use** – Ideal for hand tapping in metalworking, automotive, and DIY applications.
- **Smooth Ratcheting Action** – Reduces hand fatigue and improves efficiency.
- Chrome plated body.

The Interchangeable Reversible Tap Wrench Set is designed for threading applications, providing versatility and ease of use.

Includes:
two chucks (5/32-1/4" & 1/4-1/2") and two handles (4" & 7").

Capacity:
Small Chuck: Range for hand taps 5/32~1/4"
Big Chuck: Range for hand taps 1/4~1/2"



4 PC SET
5/32~1/2"
3906–0251

SPRING-LOADED TAP GUIDE, MACHINE TAPPING GUIDE & ADJUSTABLE TAP & REAMER WRENCH SET COMBO



BUY A COMBO & SAVE !

6 PC COMBO SET
9999-0038

SPRING-LOADED TAP GUIDE

- Adjustable tension spring
- Reversible tension pin for male and female hole centering or tapping
- 1/2" dia. hardened shank, knurled for easy handling
- 3/16" dia. hardened tension pin



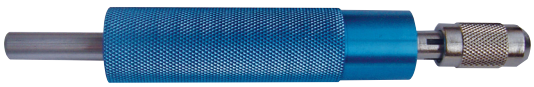
ADJUSTABLE TAP & REAMER WRENCH

- Heavy duty tap wrenches.
- Rugged drop forged construction
- Hardened jaws for increased resistance to wear.

4PC Capacity Includes(range for hand taps):
1/16~1/4"(M2~M6), 1/16~3/8"(M2~M10)
5/32~1/2"(M6~M12) & 5/32~3/4"(M6~M22)

MACHINE TAPPING GUIDE

- Provide sensitive feel for hand tapping small holes on mills and drill presses
- Starts every hole straight and prevents tap breakage
- Shank dia. 3/8"
- Handle dia. 1"
- Tap capacity #0-12



SELF ALIGNING TAP & REAMER HOLDER WITH HARDENED JAWS

- Base of guide has two 120° vees that accept round parts.
- Supplied with 2 sets of hardened jaws including one 0-#8 & one #10-1/2".
- Jaws provide firm grip and 90° alignment that eliminates tap breakage while producing perfectly aligned threads.
- 3/8" diameter and 1/2" stem for chucking alignment.
- Two apertures in the side of the sleeve allow you to check the progress of the tap.

Limited Supply!



Tap Capacity 0-1/2"
3906-0293

SELF-ALIGNING TAP & REAMER HOLDER WITH COLLETS



NEW DESIGN

- Base of guide has two 120° Vees, which accepts round parts.
- New 4 jaw design provides firm grip and 90° alignment, eliminates tap breakage while producing perfectly aligned theads.

Tap Range 0~1/2"
(2 Collets-0~#8 & #10~1/2")
3900-0293

VERTEX® COMPACT HAND TAPPER ON MAG BASE



MADE IN TAIWAN

- Compact and portable.
- Suitable for large workpieces like machine cases & thin plate tapping jobs.
- Max. stroke 2.36".
- Drill chuck enables the tap to be easily loaded and taken off.
- Powerful permanent magnet (175 lbs.) seat with On/Off switch.
- Mag. base dimensions: 2.36x2.36x2"

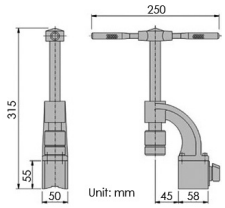
Tap & Round Iron Piece Not Included

Tap Capacity M3~M12
3900-0255

Pro-Series HAND TAPPER ON MAG BASE



- Compact and portable design, easy to operate.
- Guide bar helps the tap positioning precisely.
- Evenly force delivering during operation prevent tap from breaking.
- Quick chuck enables the tap to be easily loaded and took off.
- Powerful permanent magnet seat with On/Off switch.



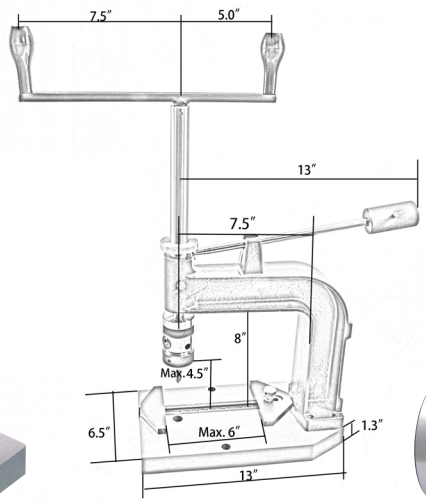
MADE IN TAIWAN

Tap Capacity 0~1/2"
3900-0254

PRECISION HAND TAPPERS

ULTRA PRECISION HAND TAPPER WITH TORQUE DRIVE HEAD





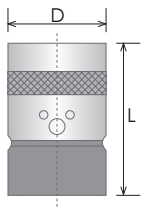
TAPPING RANGE: 1/8~1/2"/M2~M13

- Precision ground work table and spindle for high accuracy.
- Assures straight perpendicular tapped holes.
- Rigid structure.
- High torque tapping head with improved stability
- Adjustable clamping range.
- Tapping Range: 1/8~1/2"/M2~M13
- Includes hook wrench and Allen wrench.
- Weight: 40 lbs.

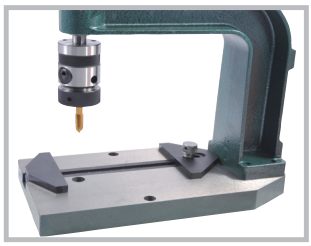
3900-0257

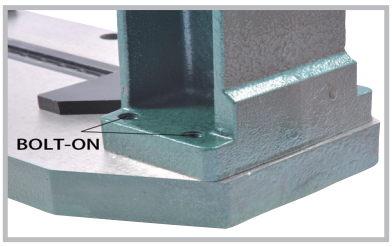


D=48mm
L=73mm

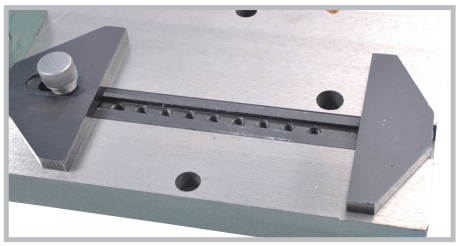


Tap Not Included





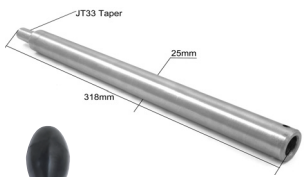




ULTRA PRECISION TORQUE DRIVE TAPPING HEAD RETROFIT KIT FOR CONVENTIONAL HAND TAPPER

UPGRADE YOUR TAPPING, ACCURACY AND STABILITY

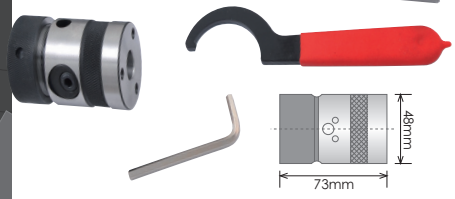
- This precision rigidity is designed to improve the rigidity of a conventional hand tapper (#3900-0250)
- It works for the same type hand tapper with 25mm diameter spindle.
- High torque tapping head with improved stability
- Adjustable clamping range.
- Tapping Range: 1/8~1/2"/M2~M13
- Kit Includes: Handle, Spindle, Tapping Head, Hook Wrench and Allen Wrench.

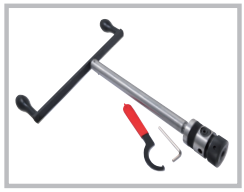


Limited Supply!



3903-0257





PRECISION HAND TAPPER

- Precision ground work table and spindle to high accuracy.
- **9 tap adapters included: #6, #8, #10, 1/4, 5/16, 3/8, 7/16, 1/2 & 5/8" .**
- Assures straight perpendicular tapped holes.
- Rigid structure made of high grade tool steel.
- Equipped with tap guide.
- Working Area: 6-1/2" x 10"
- Clearance Height: 7"
- Depth of Throat: 7-1/2"
- Overall Height: 13"
- Weight: 37 lbs.

3900-0250



9 PC REPLACEMENT ADAPTER SET
Range #6-5/8"
3900-0289



SELF REVERSING TAPPING HEAD SETS



- Adjustable torque prevents damage and tap breakage.
- High reverse ratio increases productivity.
- Jacobs mount can be adapted to most spindles with the help of an arbor.
- Thread mount designed to adapt to tapping machines or fixed, threaded mount spindles.
- **Includes: 2 rubber flex collets and 2 shanks.**





For Drill Presses, Drill Units & Manually Operated Machines With Rotating Spindles !

Capacity in Steel	Item#	Mount	Outside Collet Dia.	Shanks Included
#0-1/4" (M1.4-M7)	**3900-1250***	JT6	.591	2 & 3 MT
	3900-1251	JT33	.591	2 & 3 MT
#6-1/2" (M3-M12)	**3900-1500**	JT6	.827	3 & 4 MT
#10-3/4" (M3-M20)	**3900-1750***	JT3	1.043	3 & 4 MT

* Limited Supply

MORSE TAPER REVERSIBLE TAPPING ATTACHMENTS

- **Automatic Reverse Tapping Action** – Instantly reverses when upward pressure is applied, allowing fast, and controlled tapping without reversing the machine spindle.
- **High-Quality Construction** – Made from hardened and ground alloy steel for durability and long service life.
- **Adjustable Torque Clutch Protection** – Built-in friction clutch helps prevent tap breakage by slipping when preset torque is exceeded.
- **Morse Taper Mount Compatibility** – Precision ground MT2 and MT3 configurations for secure mounting in drill presses and drill units.
- **Wide Tap Capacity Range** – Handles taps from #6–1/2" (M3–M12), making it suitable for a broad range of threading applications.
- **Complete Ready-to-Use Kit** – Includes hex wrenches and collet wrench for easy adjustment and setup right out of the box.



For Drill Presses, Drill Units & Manually Operated Machines With Rotating Spindles!

3906-1502 Shown



Item#	Capacity	Mount
3906-1500	#6-1/2" (M3-M12)	MT2
3906-1502	#6-1/2" (M3-M12)	MT3

RUBBER FLEX TAP CHUCK COLLETS

- For tapping heads
- Multi range
- Accurate gripping force

Item#	Outside Diameter (Inch)	Capacity Range (Inch/mm) Minimum	Capacity Range (Inch/mm) Maximum	Contact Length (Inch)	Cone Angle (Degree)
3900-1781	0.591	0.098/2.50	0.165/4.20	0.433	26
3900-1782	0.591	0.165/4.20	0.256/6.50	0.433	26
3900-1783	0.827	0.138/3.50	0.276/7.00	0.512	40
3900-1784	0.827	0.276/7.00	0.394/10.00	0.512	40
3900-1785	1.043	0.236/6.00	0.354/9.00	0.591	40
3900-1786	1.043	0.354/9.00	0.551/14.00	0.591	40



MINI E-Z HAND TAPPER

- Assures straight perpendicular tapped holes up to #10 diameter.

3900-0252



SPECIFICATIONS

Table size.....8-1/2x6"
Height.....9"
Clearance height.....3-3/4"
Depth of throat.....4-1/2"
Approx. weight.....12 lbs.

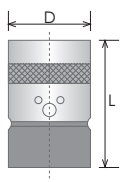
Complete with tap guide, precision ground work table, tap spindle wrench, and 7 steel tap adapters (#0-5/16")



7 PC REPLACEMENT ADAPTER SET
Range #0-5/16"
3900-0253

TC TYPE MULTI-FUNCTION TAPPING HEADS

- Can be used on tapping, drilling, high speed machine and CNC with taper mounting.
- High precision and good stability.
- Adjustable clamping range.
- Quick and easy loading and unloading.
- Includes hook wrench and Allen wrench.



* Limited Supply

Item#	Taper Mount	Capacity	D (mm)	L (mm)
3900-1255*	JT6	1/8~1/2"	48	73
3900-1256	JT33	1/8~1/2"	48	73
3900-1259	JT3	1/8~5/8"	54	85

HELICAL S.T.I. THREAD REPAIR KITS - SAE & METRIC

- Simple and easy to use kit.
- For repairing tapped holes.
- Cost effective system creates stronger than original threads.
- Creates a stronger internal thread in soft metals.
- Professional kit includes drills, STI taps and lug breaking tool.

- ***132 PC set Includes:***
  - **110 PC-** Stainless Steel Inserts
  - **5 PC-** STI HSS Taps
  - **5 PC-** HSS Twist Drills
  - **5 PC-** Coil Drivers
  - **5 PC-** Tang Removers
  - **1 PC-** L Hex Wrench
  - **1 PC-** Metal Case



132 PC SETS

Item#	Description	Insert Thread	STI Tap	HSS Drill
1011-0055	Coarse Thread Repair Kit	25ea-1/4-20	1/4-20	17/64
		25ea-5/16-18	5/16-18	21/64
		25ea- 3/8-16	3/8-16	25/64
		25ea-7/16-14	7/16-14	29/64
		10ea-1/2-13	1/2-13	17/32
1011-0056	Fine Thread Repair Kit	25ea-1/4-28	1/4-28	17/64
		25ea-5/16-24	5/16-24	21/64
		25ea-3/8-24	3/8-24	25/64
		25ea-7/16-20	7/16-20	29/64
		10ea-1/2-20	1/2-20	17/32
1011-0051	Metric Thread Repair Kit	25ea-M5 x 0.80	M5 x 0.80	5.2
		25ea-M6 x 1.00	M6 x 1.00	6.3
		25ea-M8 x 1.25	M8 x 1.25	8.3
		25ea-M10 x 1.50	M10 x 1.50	10.4
		10ea-M12 x 1.75	M12 x 1.75	12.4

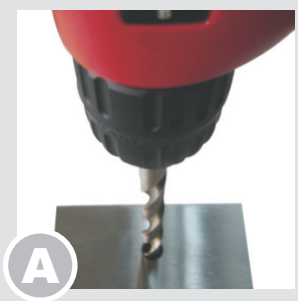


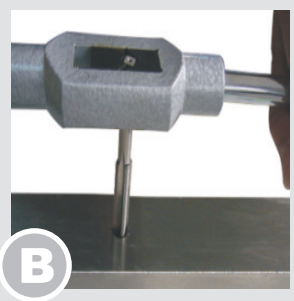
STAINLESS STEEL INSERTS LENGTH -1.5 X Diameter

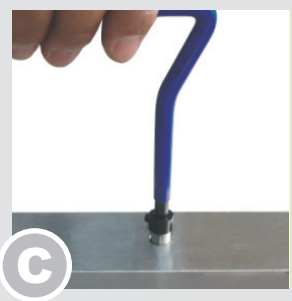
- ***16 PC & 31 PC Kit Includes:***
  - **10 PC or 25 PC-** Stainless Steel Inserts
  - **1 PC-** STI HSS Tap
  - **1 PC-** HSS Twist Drills
  - **1 PC-** Coil Driver
  - **1 PC-** Tang Breaker
  - **1 PC-** L Hex Wrench
  - **1 PC-** Metal Case

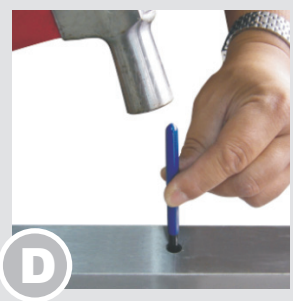
16 PC & 31 PC KITS

Item#	Insert-Thread	No of Insert In Set	STI Tap	HSS Drill
1011-0081	1/4-20	25	1/4-20	17/64
1011-0084	5/16-18	25	5/16-18	21/64
1011-0087	3/8-16	25	3/8-16	25/64
1011-0094	1/2-13	10	1/2-13	17/32
1011-0065	M5 x 0.80	25	M5 x 0.80	5.2
1011-0066	M6 x 1.00	25	M6 x 1.00	6.3
1011-0068	M8 x 1.25	25	M8 x 1.25	8.3
1011-0070	M10 x 1.50	25	M10 x 1.50	10.4
1011-0072	M12 x 1.75	10	M12 x 1.75	12.4









HELICAL THREAD REPAIR INSERTS - Stainless Steel - SAE & METRIC

- Thread repair inserts are used to fix a stripped bolt or screw thread or to install a strong, permanent threaded hole in metals, composites, wood or other materials. Helical inserts have a wired coil design. When inserted into a tapped hole with an installation tool, the coil expands to anchor the insert in place.
- Made of stainless steel
- Insert Lenth=1.5D(Diameter)

APPLICATION: Renews worn threads.



25PC/PACK
Shown



Limited Supply!

Item#	Insert-Thread	PCS/Pack
1011-0240	M5 x 0.80	25
1011-0242	M6 x 1.00	25
1011-0244	M8 x 1.25	25
1011-0246	M10 x 1.50	25
1011-0248	M12 x 1.75	10
1011-0251	1/4-20	25
1011-0252	1/4-28	25
1011-0253	5/16-18	25
1011-0254	5/16-24	25
1011-0255	3/8-16	25
1011-0256	3/8-24	25
1011-0257	7/16-14	25
1011-0258	7/16-20	25
1011-0259	1/2-13	10
1011-0260	1/2-20	10

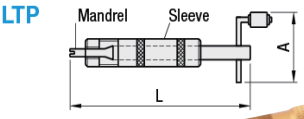
THREADING WIRE INSERT INSTALATION TOOLS - SAE & METRIC

FOR HELICAL INSERTS

- These special tools make installing Threading Wire Inserts fast and easy.
- For use with wire thread inserts.

APPLICATION: Installation of Free Running & Screw Locking Helical Inserts.

HLTP



Limited Supply!

Item#	Insert-Thread	A	L
1011-0211	1/4-20	3	5-1/2
1011-0212	1/4-28	2-3/4	5-1/4
1011-0216	5/16-18	3	6-1/4
1011-0217	5/16-24	3	6-1/4
1011-0221	3/8-16	2-3/4	6-1/4
1011-0222	3/8-24	3	6-1/2
1011-0226	7/16-14	3-1/2	6-1/2
1011-0227	7/16-20	2-3/4	6-1/2
1011-0231	1/2-13	3-1/4	6-1/2
1011-0232	1/2-20	3-1/4	7
1011-0261	M5 x 0.80	3	5
1011-0266	M6 x 1.00	3	5.1/2
1011-0271	M8 x 1.25	3	6-1/4
1011-0276	M10 x 1.50	3	6-1/2
1011-0281	M12 x 1.75	2-3/4	6-1/2

SELF TAPPING THREAD REPAIR KITS - METRIC

- Self tapping, no pre-tapping required.
- Very high pull-out resistance.
- Unlimited thread re-usability.
- Protects expensive components from damage.
- Fits almost every application.
- Produces high quality, permanent, wear-resistant threads.
- Highly resistant to vibration, can withstand vibration without loosening.
- Inserts are made of carbon steel with zinc coating.

Item#	Insert-Thread
1011-0205	M5 x 0.80
1011-0207	M6 x 1.00
1011-0209	M8 x 1.25
1011-0210	M10 x 1.5
1011-0213	M12 x 1.75

Insert Length 2.0 x Diameter

Kit Includes:
10 PC- Stainless Steel Inserts
1 PC- HSS Twist Drills
1 PC- Installation Tool
1 PC- Metal Case

Limited Supply!



1011-0205 Shown

18 PC HSS TAP & DRILL COMBO SETS

- High speed steel made taps and drills.
- Plug taps are fully ground.
- Drills are matched with taps to make jobs much easier.
- Steel index case.





National Course Pitch Set Includes
1 each HSS Hand Tap
6-32 NC, 8-32 NC, 10-24 NC, 10-32 NF, 1/4"-20 NC, 5/16"-18 NC, 3/8"-16 NC, 7/16"-14 NC, 1/2"-13 NC
1 each HSS Jobbers Drill
#36, #29, #25, #21, #7, F, 5/16" ,U, 27/64"



National Course Pitch Set
1011-0018

National Fine Pitch Set Includes
1 each HSS Hand Tap
6-40 NF, 8-36 NF, 10-24 NF, 10-32 NF, 1/4"-28 NF, 5/16"-24 NF, 3/8"-24 NF, 7/16"-20 NF, 1/2"-20 NF
1 each HSS Jobbers Drill
#33, #29, #25, #21, #3, I, Q, 25/34", 29/64"



National Fine Pitch Set
1011-0019

METRIC Set Includes
1 each HSS Hand Tap
M2.5x0.45, M3.0x0.50, M3.5x0.60, M4.0x0.70, M5.0x0.80, M6.0x1.00, M8.0x1.25, M10.0x1.50 & M12.0x1.75
1 each HSS Jobbers Drill
2.05, 2.50, 2.90, 3.30, 4.20, 5.00, 6.70, 8.50 & 10.20mm



M2.5 ~ M12
1011-0020

SCREW EXTRACTORS & SET

- Quick & easy removal of broken screws, pipes, bolts, & studs without damaging the threads in the hole.



Item#	Size	For Remove Screw/Bolt	Drill to Use
1011-0021	#1	3/32~5/32"	5/64"
1011-0022	#2	5-32~7/32"	7/64"
1011-0023	#3	7/32~9/32"	5/32"
1011-0024	#4	9/32~3/8"	1/4"

MADE IN USA

8 PC SET
1011-0016

Set Includes:
#1, 2, 3, 4 , 5, 6, 7 & 8 For Removing 3/32 ~ 1-3/8" of studs, bolts & screws



CUTTING & CARBIDE TOOLS

DEBURRING TOOLS

DEBURRING TOOL SETS

- Interchangeable blades for versatile deburring.
- Telescoping handle reaches tight areas.
- Lightweight design for comfortable use.



Item#	Style	Set Includes
2001-0220	B	4 pc set -plastic handle, telescoping holder and blades B10 & B20
2001-0222	E	5 pc set -plastic handle, telescoping holder and blades E100, E200 & E300

ROYAL STYLE DEBURRING TOOL SET

- Pressing locking button to change blades.
- Blades can be stored in the handle.
- Accepts all " E" blades on the market.

SET INCLUDES:
HANDLE BLADES:
E100, E101, E102,
E200 & E350



6 PC SET
2001-0226

5 PC BLADES
(One each of E100,E101,E102,E200 & E350).....Item **2001-2261**

EDGE OFF STYLE DEBURRING TOOL

- Hexagonal aluminum handle with pocket clip.
- E100 blade mounted (not replaceable).



2001-0232



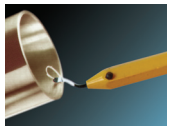
RAPID PUSH BUTTON DEBURRING TOOL

- Push button to change blade.
- Accepts E100 blade (included).



2001-0233

Limited Supply!



2 PC. DEBURRING TOOL & SCRAPER KIT

HOLLOW TRIANGULAR SCRAPER

- Ideal for scraping, trimming, and deburring metal and other materials
- Hollow-ground cutting edge stays sharp longer and is easy to resharpen



2 PC SET
9991-0201



EDGE OFF STYLE DEBURRING TOOL

- Hexagonal aluminum handle and pocket clip for a secure grip.
- Includes E100 blade, factory installed (not replaceable)

DEBURRING BLADES

- Replacement blades fit a wide range of deburring applications.
- Removes burrs from holes, edges, and surfaces.
- Blade styles are available for different materials and chip types.

SOLD IN PACKAGE QUANTITY !
Price Per Package of 10

10 PC PER PACKAGE

Blade Style	Item#	Description	Used with Set	Blade	APPLICATIONS: Straight Edge	Hole Edge	Cross-Hole Both-Edges	Hole Black-Edge	Hole Inner Surface	Flat Surface	Sheet	MATERIALS: Steel	Aluminum	Copper	Brass	Cast Iron	Stainless Steel	Hardened	Plastics
B10	**2001-2201**	HSS. Deburrs materials with spiral chips	B		X	X						X	X	X					X
B20	**2001-2202**	HSS. Rotates clockwise & counterclockwise	B		X	X									X	X			X
B30	**2001-2203**	Simultaneously deburrs the inside and outside of holes up to 0.16" (4mm) thick	B				X					X	X	X					X
E100	**2001-2251**	Heavy-duty HSS. Deburrs material with spiral chips	E									X	X	X					X
E200	**2001-2252**	HSS for materials with powdery chips. Rotates clockwise & counterclockwise	E		X	X									X	X			X
E300	**2001-2253**	HSS for materials with spiral chips. Simultaneously deburrs the inside and outside of holes up to 0.24" (6mm) thick	E				X					X	X	X					X
E350	**2001-2258**	HSS for materials with powdery chips. Rotates clockwise & counterclockwise	E		X	X									X	X			X

20 PC DIAMOND PIN SET

- Various shapes and grit sizes for grinding carbide, ceramics, etc.
- Overall length 1-3/4" .
- Suitable for grinding in tight or precision areas, on jigs, dies and fixtures.



1/8" SHANK
3000–0049

TRIANGULAR HOLLOW SCRAPER

- An extremely useful accessory for scraping, trimming and deburring metals, tubing and other materials.
- Hollow ground cutting edge stays sharper longer and resharpens easily.



VALUE PACK (TWO PIECES)
9999–0210

2001–0210

TRIANGULAR SOLID EDGE SCRAPER

- **Triangular Solid Blade Design** – Three cutting edges provide consistent scraping performance and extended tool life by allowing multiple usable edges. 200mm length
- **Precision Edge for Detailed Work** – Ideal for fine trimming, deburring, and cleanup on flat surfaces, corners, and hard-to-reach areas.
- **Sharp, Easy-to-Maintain Blade** – Can be re-sharpened easily to maintain a clean cutting edge for long-term use.
- **Comfortable Ergonomic Handle** – Smooth wooden handle offers a secure grip and improved control during extended use.
- **Versatile Woodworking Tool** – Suitable for scraping, smoothing, and finishing tasks on wood and other soft materials.

2001–0211



10 PC DIAMOND NEEDLE FILE SET
MEDIUM-D126

- Can be used on carbide, hardened steel, glass and ceramics. Made with a hard chrome bond that gives a long life and wears extremely well.
- Overall length 5-1/2" .
- Diamond impregnated length: 1-9/16".
- In fitted pouch.

INCLUDES SHAPES:
2 of round,
2 of hand,
1 of square,
Three - square,
half round,
barrette, flat, knife.



3000–0062

12 PC NEEDLE FILE SETS

- Industrial grade.
- Complete with durable pouch.
- **Shapes: Barrette, Crossing, Equalling, Half Round, Round Edge Joint, Knife, Marking, Round, Slitting, Square, Three Square and Warding**

5-1/2" OAL

#0 Cut
3000–0080



5 PC STEEL FILE SET

- **Shapes: Flat File, Round File, Square File, Three Square File & Half Round File**
- For general purpose.
- Complete with durable handles.



Overall Length: 12"

3000–0055

THREAD RESTORING FILES & SET

- Restores Damaged or Rusted External Threads on Bolts, Threaded Shafts, Pipe and Pipe Fittings.
- Profile Shape: Square
- File Length: 8-1/2"
- Sizes clearly marked.





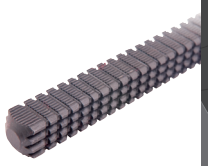
METRIC Thread
1011–0044
For Pitches: 0.75, 1.00, 1.25, 1.50, 1.75, 2.00, 2.50 & 3.00mm



SAE Thread
1011–0040
For Pitches: 12, 13, 14, 16, 18, 20, 24 & 28 Per Inch



2 PC Combo
9999–0062
Includes one each of the SAE & Metric Threads



CARBIDE ROTARY BURRS

- **Hardened steel shank** – strong and durable for high-speed use
- **Solid carbide head** – long tool life and excellent wear resistance
- **Precision cutting flutes** – smooth cutting with reduced chatter



SA Carbide Cylindrical Shape

Industrial No.	Cut Dia (In)	Cut Length (In)	Shank Dia. (In)	Item#
SA-3	3/8	3/4	1/4	**3000-0103**
SA-5	1/2	1	1/4	**3000-0105**
SA-6	5/8	1	1/4	**3000-0106**
SA-7	3/4	1	1/4	**3000-0107**



SD Carbide Ball Shape

Industrial No.	Cut Dia (In)	Cut Length (In)	Shank Dia. (In)	Item#
SD-1	1/4	1/4	1/4	**3000-0121**
SD-3	3/8	3/8	1/4	**3000-0123**
SD-5	1/2	1/2	1/4	**3000-0125**
SD-6	5/8	5/8	1/4	**3000-0126**
SD-7	3/4	3/4	1/4	**3000-0127**



SC Carbide Cylindrical Ball Nose Shape

Industrial No.	Cut Dia (In)	Cut Length (In)	Shank Dia. (In)	Item#
SC-1	1/4	5/8	1/4	**3000-0111**
SC-3	3/8	3/4	1/4	**3000-0113**
SC-5	1/2	1	1/4	**3000-0115**
SC-7	3/4	1	1/4	**3000-0117**



SE Carbide Egg Shape

Industrial No.	Cut Dia (In)	Cut Length (In)	Shank Dia. (In)	Item#
SE-5	1/2	7/8	1/4	**3000-0135**
SE-6	5/8	1	1/4	**3000-0136**



SF Carbide Round Nose Tree Shape

Industrial No.	Cut Dia (In)	Cut Length (In)	Shank Dia. (In)	Item#
SF-5	1/2	1	1/4	**3000-0145**
SF-6	5/8	1	1/4	**3000-0146**
SF-7	3/4	1	1/4	**3000-0147**

1/4" SHANK CARBIDE BURR SETS - Double Cut

- **Double cut design** – faster material removal with smoother finish
- **1/4" shank size** – fits most die grinders and rotary tools
- **Solid carbide construction** – long-lasting and heat resistant



Overall Length: 2"

5 PC SET
3000–0005
SA-3,SC-3,SF-3, SG-3 & SD-3

12 PC SET
3000–0012
SA-14,SA-1,SC-14,SC-1,SD-14,SD-1, SE-1,SF-1,SG-1,SM1,SM2 & SN-1



Type	Cutting Dia.	Cutting Lenth	Shape
SA-1	1/4	5/8	Cylindrical
SA-3	3/8	3/4	Cylindrical
SA-5	1/2	1	Cylindrical
SA-14	3/16	5/8	Cylindrical
SC-1	1/4	5/8	Cylindrical Radius End
SC-3	3/8	3/4	Cylindrical Radius End
SC-5	1/2	1	Cylindrical Radius End
SD-14	3/16	--	Ball
SD-1	1/4	--	Ball
SD-3	3/8	--	Ball
SE-1	1/4	3/8	Oval
SF-1	1/4	5/8	Oval
SF-3	3/8	3/4	Oval
SF-5	1/2	1	Oval
SG-1	1/4	5/8	Tree Point End
SG-3	3/8	3/4	Tree Point End
SM-1	1/4	1/2	Cone 22 Degree
SM-2	1/4	3/4	Cone 14 Degree
SN-1	1/4	5/16	Inverted Cone 10 Degree

HARLINGEN® 8 PC 1/4" SHANK CARBIDE ROTARY BURR SET
-For Rust & Welded Areas

- **8-Piece Versatility** – SA, SC, SD, SF shapes for diverse tasks.
- **Durable Carbide** – Long-lasting, high-hardness tungsten carbide.
- **Fast Double Cut** – Rapid material removal, smooth finish.
- **Universal 1/4" Shank** – Fits most rotary tools.
- **Multi-Purpose** – Metalworking, wood carving, grinding, and deburring.
- **Precise Cutting** – Accurate shaping and material removal.
- **Shape Variety** – Tailored heads for specific applications.
- **Efficient Design** – Reduced clogging for optimized performance.

The Harlingen 8-piece 1/4" carbide rotary burr set delivers durable, high-performance cutting for metal and wood. Made from tungsten carbide with a double-cut design, it ensures fast material removal and smooth finishes. Includes SA, SC, SD, and SF shapes for versatile use with any 1/4" shank rotary tool and fitted case.

SOLID CARBIDE & GROUND THROUGHOUT

SET INCLUDES:

Industrial No.	Cut Dia.	Cut Length	Shape
SA-3	3/8	3/4	Cylindrical
SA-5	1/2	1	Cylindrical
SC-1	1/4	5/8	Cylindrical Ball Nose
SC-3	3/8	3/4	Cylindrical Ball Nose
SD-1	1/4	1/4	Ball
SD-3	3/8	3/8	Ball
SF-3	3/8	3/4	Round Nose Tree
SF-5	1/2	1	Round Nose Tree



8 PC Set
3000–0008



6 PC HSS END MILL SETS
Center Cut • 3/8" Shank

- Single end.
- High speed steel.
- Center cut.
- Wood stand.

6 PC INCLUDES:
1/8, 3/16, 1/4, 5/16, 3/8 & 1/2"



2 FLUTE SET
8000-0001

4 FLUTE SET
8000-0002

TITANIUM COATED END MILL SETS



GROUND FROM SOLID CENTER CUT

20 PC SET - INCH
2 & 4 FLUTE
8000-0020
10 PC OF EACH:
3/16-3/4" by 16ths

- Titanium coated for longer life.
- High speed steel, single end.
- Complete with wood case.

10 PC SET - INCH
4 FLUTE
5800-0010
10 PC OF EACH:
3/16-3/4" by 16ths

20 PC SET - METRIC
2 & 4 FLUTE
8000-0022
10 PC OF EACH:
3,4,5,6,8,10,12,14,18 & 20mm

6 PC COBALT 4 FLUTE END MILL SET - SINGLE END

- Center cut.
- M42 (8%) cobalt, used for cut in tough high tensile strength materials like stainless steel, titanium and inconel.
- Uniform cutting load per tooth assures minimum chatter deflections.
- Preferred for light to medium removal rates and obtaining better surface finishes on soft, tough and long chip materials.
- Wood stand.

M42 8% COBALT





8000-0004

Set Includes

Size	Shank Dia.	Flute Length	OAL
1/8	3/8	1/2	2-11/32
3/16	3/8	9/16	2-3/8
1/4	3/8	11/16	2-1/2
5/16	3/8	3/4	2-17/32
3/8	3/8	3/4	2-1/2
1/2	1/2	1-1/4	3-9/32

6 PC COBALT 4 FLUTE END MILL SET-DOUBLE END

- Center cut.
- M42 (8%) cobalt, used for cut in tough high tensile strength materials like stainless steel, titanium and inconel.
- Uniform cutting load per tooth assures minimum chatter deflections.
- Preferred for light to medium removal rates and obtaining better surface finishes on soft, tough and long chip materials.
- Wood stand.



Set Includes

Size	Shank Dia.	Flute Length	OAL
1/8	3/8	3/8	3-1/16
3/16	3/8	1/2	3-1/4
1/4	3/8	5/8	3-3/8
5/16	3/8	3/4	3-1/2
3/8	3/8	3/4	3-1/2
1/2	1/2	1	4-1/8

M42 8% COBALT

8000-0005

3/16" SHANK DOUBLE-END 10 PC END MILL SET

- High speed steel.
- Center-cut.
- Double end.
- Supplied with wood stand.

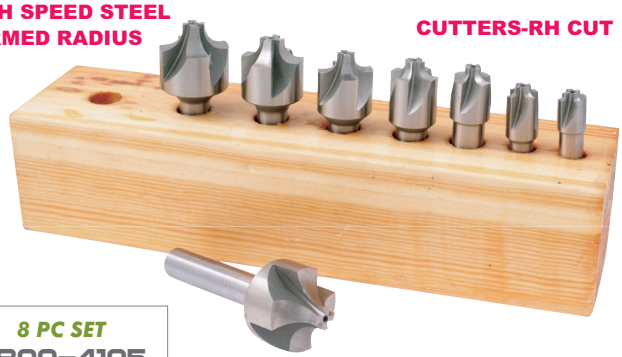


2 & 4 FLUTE
8000-0025
1 PC each
1/16, 3/32, 1/8, 5/32 & 3/16"

CORNER ROUNDING END MILLS & SET

HIGH SPEED STEEL FORMED RADIUS

CUTTERS-RH CUT



8 PC SET
5800-4195
1/16, 3/32, 1/8, 5/32, 3/16, 1/4, 5/16, 3/8"

- Intended for use in milling rounded corners, etc.
- Form-relieved type; can be sharpened many times without changing the form

Item#	Radius	Diameter (Inch) Mill	Shank	OAL
5800-4020	1/16	7/16	3/8	2-1/2
5800-4030	3/32	1/2	3/8	2-1/2
5800-4040	1/8	5/8	1/2	3
5800-4050*	5/32	3/4	1/2	3
5800-4060	3/16	7/8	1/2	3
5800-4080	1/4	1	1/2	3
5800-4090*	5/16	1-1/8	1/2	3-1/4
5800-4110*	3/8	1-1/4	1/2	3-1/2
5800-4115*	7/16	1-3/8	1	4
5800-4160	1/2	1-1/2	3/4	3-7/8

* Limited Supply

SINGLE-END END MILLS

2-FLUTE SINGLE-END CENTER CUT END MILLS

- 2 cutting flutes
- Center cutting (plunge capable)
- Wide flute spacing
- Solid construction (HSS / Cobalt options)

Use 2-Flute End Mills For:

- Faster chip evacuation (reduces clogging)
- Ideal for soft materials (aluminum, brass, plastics)
- Allows higher feed rates
- Better for slotting and pocketing operations

GROUND FROM SOLID • CENTER CUTTING



Diameter (In) Mill	Shank	Flute (In) Length	OAL (In)	*HSS* Item#	*TiN Coated* Item#	*M42(8%)* Item#
1/8	3/8	3/8	2-5/16	5801-0125	5826-0125*	5824-0125*
3/16	3/8	7/16	2-5/16	5801-0187	5826-0187*	5824-0187*
1/4	3/8	1/2	2-5/16	5801-0250	5826-0250*	5824-0250*
5/16	3/8	9/16	2-5/16	5801-0312	----------	5824-0312*
3/8	3/8	9/16	2-5/16	5801-0375	5826-0375*	5824-0375*
7/16	3/8	13/16	2-1/2	5801-0437	----------	5824-0437*
1/2	3/8	1	3	5801-0500	----------	5824-0500*
1/2	1/2	1	3	5801-0501	5826-0501*	----------
9/16	1/2	1-1/8	3-1/8	5801-0562	----------	5824-0562
5/8	1/2	1-1/8	3-1/8	5801-0625	----------	5824-0625
5/8	5/8	1-5/16	3-7/16	5801-0626	5826-0626*	5824-0626
3/4	1/2	1-5/16	3-5/16	5801-0750	----------	5824-0751
3/4	3/4	1-5/16	3-9/16	5801-0753	----------	----------
7/8	3/4	1-1/2	3-5/8	----------	----------	5824-1001
1	1/2	1-1/2	3-5/8	5801-1000	----------	----------
1	3/4	1-1/2	3-3/4	5801-1001	----------	5824-1125*
1	1	1-5/8	4-1/8	----------	----------	5824-1250*
1-1/2	3/4	1-5/8	4-1/8	5801-1500*	----------	----------

* Limited Supply

HSS 4-FLUTE SINGLE-END CENTER CUT END MILLS

- 4 cutting flutes
- Center cutting (plunge capable)
- Tighter flute spacing (more core strength)
- Solid construction (HSS / Cobalt options)

Use 4-Flute End Mills For:

- Smoother surface finish
- Higher feed rates in harder materials
- Increased rigidity for less deflection
- Ideal for side milling and finishing operations

GROUND FROM SOLID • CENTER CUTTING



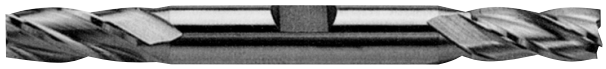
Diameter (In) Mill	Shank	Flute (In) Length	OAL (In)	*HSS* Item#	*TiN Coated* Item#	*M42 Cobalt* Item#
1/8	3/8	3/8	2-5/16	5802-0125	5828-0125	5835-0125
3/16	3/8	1/2	2-3/8	5802-0187	5828-0187	5835-0187
1/4	3/8	5/8	2-1/2	5802-0250	5828-0250	5835-0250
5/16	3/8	3/4	2-1/2	5802-0312	5828-0312	----------
3/8	3/8	3/4	2-1/2	5802-0375	5828-0375	5835-0375
7/16	3/8	13/16	2-1/2	5802-0437	5828-0437	5835-0437
1/2	3/8	13/16	2-1/2	5802-0500	5828-0500	5835-0500
1/2	1/2	1-1/4	3-1/4	5802-0501	5828-0501	5835-0501
9/16	1/2	1-3/8	3-3/8	5802-0562	5828-0562	5835-0562
5/8	1/2	1-5/16	3 -7/16	5802-0625	----------	5835-0625
5/8	5/8	1-5/8	3-3/4	5802-0626	5828-0626	5835-0626
3/4	1/2	1-5/8	3-5/8	5802-0750	----------	5835-0750
3/4	5/8	1-5/8	3-3/4	5802-0751	----------	----------
3/4	3/4	1-5/8	3-7/8	5802-0753	5828-0751	----------
7/8	3/4	1-7/8	4-1/8	----------	----------	5835-0875
1	1/2	1-7/8	4-1/8	5802-1000	----------	5835-1000
1	3/4	1-7/8	4-1/8	5802-1001	----------	5835-1001
1	1	2	4-1/2	5802-1002	----------	5835-1002

* Limited Supply

HSS 4-FLUTE DOUBLE-END END MILLS

- Stronger & more rigid tool- Ideal for harder materials like steel
- Smoother surface finish
- Longer tool life & better value
- Versatile general-purpose performance-HSS is tough and shock-resistant and works well in a wide range of applications
- **Used by:** Machine shops & CNC operators, tool & die makers, maintenance / repair shops (MRO), manufacturing plants (steel, cast iron, alloys), job shops doing general milling & finishing work

GROUND FROM SOLID • CENTER CUTTING



Diameter (In) Mill	Shank	Flute (In) Length	OAL (In)	*HSS* Item#	*TiN Coated* Item#
1/8	3/8	3/8	3-1/16	**5804-0125**	**5829-0125**
3/16	3/8	1/2	3-1/4	**5804-0187**	**5829-0187**
1/4	3/8	5/8	3-3/8	**5804-0250**	**5829-0250**
5/16	3/8	3/4	3-1/2	**5804-0312**	**5829-0312**
3/8	3/8	3/4	3-1/2	**5804-0375**	**5829-0375**
1/2	1/2	1	4-1/8	**5804-0500**	**5829-0500**
5/8	5/8	1-3/8	5	**5804-0625**	----------
3/4	3/4	1-5/8	5-5/8	**5804-0750**	----------

HSS 2-FLUTE BALL NOSE END MILLS

- Ball Nose (rounded cutting end)
- Excellent chip evacuation-Fewer flutes = more space- clears chips faster, reduces clogging
- Ideal for softer materials & high feed rates-Handles aluminum, plastics, and non-ferrous materials efficiently
- Smooth 3D contouring & radiused cuts-Ball nose allows curved surfaces, profiles, and molds to be machined easily
- Reduced heat buildup
- Better chip flow keeps cutting cooler less tool wear
- **Who uses these end mills:** CNC machinists (3-axis contouring work), tool & die / mold makers, job shops & prototype shops, maintenance & repair (MRO) teams, and manual mill operators

HIGH SPEED STEEL
CENTER CUTTING

Limited Supply!



Item#	Diameter (In) Mill	Shank	Flute (In) Length	OAL (In)
5841-0125	1/8	3/8	3/8	2-5/16
5841-0250	1/4	3/8	5/8	2-7/16
5841-0375	3/8	3/8	3/4	2-1/2
5841-0500	1/2	1/2	1	3
5841-0562	9/16	1/2	1	3
5841-0625	5/8	5/8	1-3/8	3-3/8

HSS BALL NOSE END MILL SETS

- Ball Nose (full radius cutting edge)
- Wood stand included for storage & organization
- Perfect for 3D contouring & radiused work- Rounded tip creates smooth curves, fillets, and complex shapes
- Improved surface finish- Full radius design reduces tool marks and
- Durable & forgiving (HSS)- Tougher than carbide and better for manual machines and CNC machinists (3D contouring & finishing)
- **Used by:** Tool & die / mold makers, job shops & prototype shops, maintenance & repair (MRO) teams, manual mill users / small machine shops, training programs & technical schools (great starter sets)



DIMENSIONS
(Mill x Shank x Flute Length x OAL)

1/8 x 3/8 x 3/8 x 2-5/16"
3/16 x 3/8 x 1/2 x 2-3/8"
1/4 x 3/8 x 5/8 x 2-7/16"
5/16 x 3/8 x 3/4 x 2-1/2"
3/8 x 3/8 x 3/4 x 2-1/2"
7/16 x 1/2 x 1 x 3"
1/2 x 1/2 x 1 x 3"
5/8 x 1/2 x 1-1/8 x 3-1/8"
3/4 x 1/2 x 1-5/8 x 3-5/8"

8001-0009 Shown



CENTER CUT • HIGH SPEED STEEL

Item#	Set	Flute	Size Includes
8001-0006	**6 PC**	2	1/8,3/16,1/4,5/16,3/8 & 1/2"
8001-0007	**6 PC**	4	1/8,3/16,1/4,5/16,3/8 & 1/2"
8001-0009	**9 PC**	2	1/8,3/16,1/4,5/16,3/8,7/16,/2,5/8 & 3/4"

M42 COBALT 2-FLUTE BALL NOSE END MILLS

- Ball nose (full radius cutting tip)
- Designed for difficult-to-machine materials
- Superior heat resistance ("red hardness")
- Longer tool life & wear resistance- Cobalt content improves durability and edge retention
- Handles tough materials- Ideal for stainless steel, tool steel, titanium, and superalloys.
- Excellent chip evacuation
- Better performance than standard HSS
- **Used by:** CNC machinists (especially cutting harder metals), tool & die / mold makers, aerospace & high-performance manufacturing, job shops working with stainless & alloys and maintenance & repair (MRO) teams dealing with tough materials

M42 (8%) COBALT
CENTER CUTTING

Limited Supply!



Item#	Diameter (In) Mill	Shank	Flute (In) Length	OAL (In)
5842-0250	1/4	3/8	5/8	2-7/16
5842-0375	3/8	3/8	3/4	2-1/2
5842-0500	1/2	1/2	1	3
5842-1000	1	1	2-1/4	4-3/4

M42 COBALT ROUGHING END MILLS - FINE PITCH

- Roughing geometry (serrated / chip-breaker teeth)
- Fine pitch tooth design (more teeth engagement)
- Designed for high metal removal rates (MRR)
- **Faster material removal** – Roughing teeth break chips into smaller pieces
- **Reduced cutting forces & vibration** – Serrated edges interrupt the cut
- **Excellent heat resistance** – M42 cobalt maintains hardness at high temps
- **Handles difficult materials** – Ideal for stainless steel, tool steel, Inconel, and alloys where standard tools struggle
- Longer tool life in tough materials
- **Used by:** CNC machinists (roughing operations), production machine shops, aerospace & heavy industry (hard alloys), tool & die makers, job shops removing large stock quickly and maintenance & repair teams working on tough materials



GROUND FROM SOLID M42 BLANK • 8% COBALT • CENTER CUTTING

Size (In)	Shank Dia.	Flute Length	OAL	Flute	Item#
3/16	3/8	1/2	2-3/8	4	**5823-0187**
1/4	3/8	5/8	2-7/16	4	**5823-0250**
1/4	3/8	1-1/4	3-1/16	4	**5823-0251**
5/16	3/8	3/4	2-1/2	4	**5823-0312***
3/8	3/8	3/4	2-1/2"	4	**5823-0375**
3/8	3/8	1-1/2	3-1/4	4	**5823-0376**
7/16	3/8	1	2-11/16	4	**5823-0437**
1/2	1/2	1-1/4	3-1/4	4	**5823-0500**
1/2	1/2	2	4	4	**5823-0501**
1/2	1/2	3	5	4	**5823-0502**
9/16	1/2	1-3/8	3-3/8	4	**5823-0562**
5/8	5/8	2-1/2	4-5/8	4	**5823-0626**
3/4	3/4	3/4	2/7/8	4	**5823-0750**
3/4	3/4	3	5-1/4	4	**5823-0752**
7/8	3/4	1-7/8	4-1/8	5	**5823-0875**
1	1	2	4-1/2	5	**5823-1000***
1	1	4	6-1/2	5	**5823-1002**
1-1/4	1-1/4	2	4-1/2	6	**5823-1250***
1-1/2	1-1/4	2	4-1/2	6	**5823-1500***
2	1-1/4	2	4-1/2	8	**5823-2000***
2	2	2	5-3/4	8	**5823-2002***
2	2	4	7-3/4	8	**5823-2003***

* Limited Supply

M42 COBALT ROUGHING END MILLS

- Roughing / serrated cutting edges (chip breaker design)
- Heavy-duty geometry for aggressive cutting
- **Aggressive stock removal ("hogging")** – Serrated edges break chips into small pieces
- **Reduced chatter & cutting pressure** – Interrupted cutting action lowers vibration so more stable cuts, especially on tough materials
- **High heat resistance (cobalt advantage)** – Maintains hardness at elevated temps
- **Longer tool life in demanding jobs** – Wear-resistant cobalt keeps edges sharper longer
- **Used by:** CNC machinists (roughing operations), production machine shops, tool & die makers, heavy industry (steel, stainless, alloys), job shops doing large stock removal and maintenance & repair (MRO) teams





GROUND FROM SOLID M42 BLANK • 8% COBALT • CENTER CUTTING

Size (In)	Shank Dia.	Flute Length	OAL	Flute	*Uncoated* Item#	*Tin Coated* Item#
1/4	3/8	5/8	2-7/16	3	**8002-5708**	**8002-6708**
1/4	3/8	5/8	2-7/16	4	**8002-5710**	----------
5/16	3/8	3/4	2-1/2	4	**8002-5716**	----------
3/8	3/8	3/4	2-1/2	4	**8002-5721**	**8002-6721**
3/8	3/8	1-1/2	3-1/4	4	**8002-5727**	----------
1/2	1/2	1-1/4	3-1/4	4	**8002-5733**	----------
1/2	1/2	2	4	4	**8002-5736**	----------
5/8	5/8	1-5/8	3-3/4	4	**8002-5748**	**8002-6748**
3/4	3/4	1-5/8	3-3/4	4	**8002-5766**	----------
3/4	3/4	1-5/8	3-7/8	4	**8002-5770**	**8002-6770**
3/4	3/4	3	5-1/4	4	**8002-5775**	----------
1	3/4	1-1/2	3-3/8	5	**8002-5794***	----------
1	1	2	4-1/2	5	**8002-5802***	**8002-6802***
1	1	3	5-1/2	5	**8002-5805***	----------

* Limited Supply

SOLID CARBIDE 4-FLUTE SINGLE END END MILLS

- Solid Carbide Construction (tungsten carbide)
- 4 Flute design (more cutting edges)
- Single-end cutting (one cutting side)
- Center cutting capability (plunge capable)



APPLICATION

- **4 Flute** - For milling tougher metals where their thicker webs offer maximum rigidity and greater feed rates.

CENTER CUTTING





- **Extreme hardness & wear resistance** – Carbide stays sharp longer and resists wear and longer tool life
- **Handles high speeds & temperatures** – Maintains cutting edge at high RPMs
- Superior surface finish
- **Faster production & efficiency** – Cuts harder materials with precision
- **Ideal for harder materials**- Best for steel, stainless, and alloys where strength is critical
- **Used by:** CNC machinists (production environments), tool & die makers, aerospace & automotive manufacturers, high-volume machine shops and precision machining shops

Cutting diameter tolerance + .000/.002

Diameter (In) Mill	Shank	Flute (In) Length	OAL (In)	Uncoated Item#
1/32	1/8	3/32	1-1/2	**8003-1243***
1/16	1/8	1/4	1-1/2	**8003-1245***
1/8	1/8	1/2	1-1/2	**8003-1250**
3/16	3/16	5/8	2	**8003-1875**
1/4	1/4	3/4	2-1/2	**8003-2500**
3/8	3/8	1	2-1/2	**8003-3750**
1/2	1/2	1	3	**8003-5000**

* Limited Supply

HSS T-SLOT CUTTERS

- Side & face cutting teeth (cuts bottom and sides)
- Positive rake geometry for smooth cutting
- Staggered / multi-directional teeth design
- Strong and secure workholding
- **Reduced vibration & smoother cutting** – Staggered/helical teeth help minimize chatter and improve finish
- **Efficient chip evacuation** – Open flute design helps clear chips prevents clogging in deep slots
- **Used by:** Machine shops (manual & CNC milling), fixture & tooling manufacturers, maintenance & repair (MRO) teams, tool & die makers and manufacturing plants (setup & workholding applications)
- Designed for undercut slot machining
- Produces accurate T-slot profiles
- Single-pass slot forming (after pre-slot)

HIGH SPEED STEEL

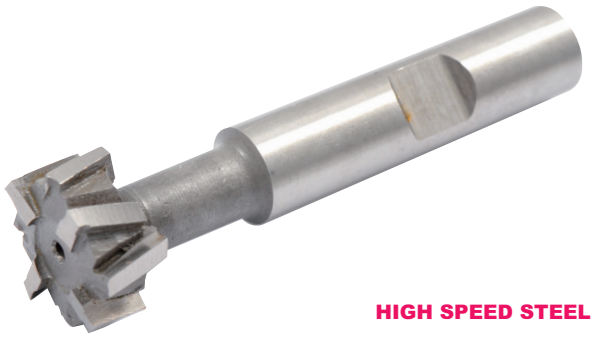


Bolt Size	Cutter Dia.	Cutter Width	Neck Dia.	Shank Dia.	Undercut Length	OAL	No. of Teeth	Item#
1/4	9/16	15/64	17/64	1/2	35/64	2-19/32	8	**2006-0161**
5/16	21/32	17/64	21/64	1/2	39/64	2-11/16	8	**2006-0163***
3/8	25/32	21/64	13/32	3/4	3/4	3-1/4	8	**2006-0165**
5/8	1-1/4	31/64	21/32	1	1-9/64	3-15/16	10	**2006-0169**
3/4	1-15/32	5/8	25/32	1	1-1/2	4-7/16	10	**2006-0171**
1	1-27/32	53/64	1-1/32	1-1/4	1-43/64	4-13/16	10	**2006-0173***
1-1/4	2-7/32	1-3/32	1-9/32	1-1/4	1-31/32	5-3/8	12	**2006-0175***
1-1/2	2-21/32	1-11/32	1-17/32	1-1/4	2-1/8	5-29/32	12	**2006-0177***

* Limited Supply

HSS METRIC T-SLOT CUTTERS

- High speed steel.
- Rugged design with free cutting features.
- Cutters have positive radial rake, right and left hand spiral with alternate side cutting teeth for maximum chip clearance.
- **Purpose-Built Design:** Tailored for the precise cutting of t-slots.
- **Ideal for Milling Machines:** Optimized for use with milling machine to ensure accurate t-slot creation in metalwork.



HIGH SPEED STEEL



INDIVIDUALS (Metric)

Bolt Size	Cutter Dia.	Cutter Width	Neck Dia.	Shank Dia.	OAL	Number of Teeth	Item#
8	16	8	7	10	62	6	**2006-0184**
14	25	11	12	16	82	8	**2006-0187**

HSS 10 PC WOODRUFF KEYSEAT CUTER SET – 1/2" SHANK

- Straight tooth design
- 1/2" shank (fits standard end mill holders)
- Designed for cutting keyseats & keyways
- Creates precise keyways for secure fits
- **Improves torque transmission** – Keyways lock gears, pulleys, and hubs to shafts reliable power transfer
- **Smooth, controlled cutting** – Geometry reduces binding and improves chip flow cleaner slots
- **Used by:** Machine shops (manual & CNC), maintenance & repair (MRO) teams, automotive & transmission shops, tool & die makers, manufacturing plants (gear, pulley, shaft work) and small engine & power equipment repair



HIGH SPEED STEEL

10 PC SET
2006-0452
Includes: 204,305,403,404, 406,505,606,608,806 & 808

Dimensions:

American Standard	Cutter Diameter	Face Width	Overall Legth
204	1/2	1/16	2-1/16
305	5/8	3/32	2-3/32
403	3/8	1/8	2-1/8
404	1/2	1/8	2-1/8
406	3/4	1/8	2-1/8
505	5/8	5/32	2-5/32
606	3/4	3/16	2-3/16
608	1	3/16	2-3/16
806	3/4	1/4	2-1/4
808	1	1/4	2-1/4

HSS 60° ANGLE DOVETAIL CUTTERS & SET

- 60° included angle (standard dovetail profile)
- High-Speed Steel (HSS) construction
- Angular / flared cutting geometry
- Designed for dovetail grooves, slideways, and undercuts
- Ideal for heavy-duty applications (60° angle)
- **Creates strong, self-locking joints** – Dovetail shape forms a mechanical lock resisting pull-out and movement
- **Versatile across materials** – Works on steel, aluminum, and even plastics or wood
- **Used by:** Tool & die makers (fixtures, slideways), CNC machinists & machine shops, aerospace & automotive manufacturers, fixture & jig builders, firearms & precision component manufacturers and woodworkers (for dovetail joints in furniture)

HIGH SPEED STEEL • RIGHT HAND CUT • 60° ANGLE

INDIVIDUAL

Item#	Cutter Dia.	Shank Dia.	Face OAL	Length of Cut
2006-0210	3/8"	3/8"	2-1/8"	3/16"
2006-0212	1/2"	3/8"	2-1/8"	1/4"
2006-0214	3/4"	3/8"	2-1/8"	5/16"
2006-0216	1-3/8"	5/8"	2-7/8"	9/16"
2006-0218	1-7/8"	7/8"	3-1/4"	13/16"

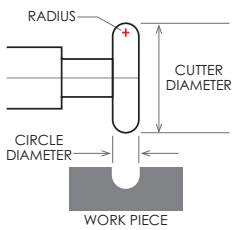
5 PC SET
2006-0205

5 PC SET INCLUDES:
- Cutter Diameters: 3/8, 1/2, 3/4, 1-3/8 & 1-7/8"
- Supplied with wood stand



HSS CONVEX RADIUS MILLING CUTTERS

- Precision ground
- Performance at lower cost
- Better finish possible in many materials with profile ground.
- Used for milling female half circle.



HIGH SPEED STEEL

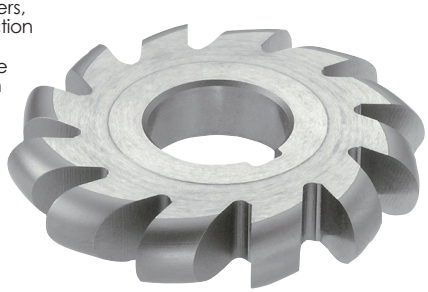


Item#	No. of Teeth	Radius (Inch)	Cutter Dia(In)	Shank Dia(In)	OAL (Inch)
2006-0401	6	1/32	3/4	1/2	3
2006-0406	6	1/16	3/4	1/2	3
2006-0416	6	1/8	1-1/4	3/4	3-1/2

HSS CONVEX MILLING CUTTERS

- Convex form cutter (half-round profile)
- Multiple cutting teeth (form relieved)
- Precision-ground radius geometry
- Resharpenable without changing profile
- Designed for form milling operations
- Produces accurate convex radii
- **Cuts the full profile in one pass** – fewer tool changes and operations
- **Long tool life & reusability** – HSS is durable and can be resharpened
- **Used by:** Tool & die makers, CNC machinists & production shops, mold makers, aerospace & automotive manufacturers, precision engineering shops and general machine shops doing form work

HIGH SPEED STEEL

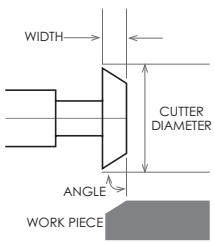


Use For Milling Female Half Circle

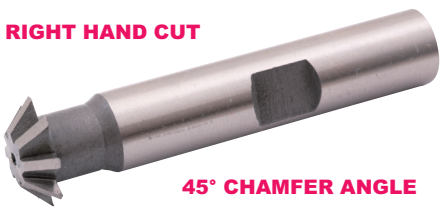
Item#	Circle Dia.	Cutter Dia.	Hole Size
2006-0424	3/16"	2-1/4"	1
2006-0427	1/4"	2-1/2"	1

SINGLE ANGLE 45° CHAMFERING CUTTERS

- Multi-tooth design for smooth cutting
- Side & face cutting capability
- Precision-ground cutting edges
- Designed for chamfering, deburring & edge finishing
- **Removes sharp edges & burrs** – improves safety and part quality
- Reduces edge chipping and stress concentration for longer part life
- Produces clean, consistent beveled edges reducing secondary finishing
- **Multi-purpose tool** – Can chamfer, deburr, countersink, and spot drill
- M42 cobalt performs better in tougher materials longer tool life
- **Used by:** CNC machinists & machine shops, tool & die makers, aerospace & automotive manufacturers, fabrication shops, maintenance & repair (MRO) teams and general manufacturing environments



RIGHT HAND CUT



45° CHAMFER ANGLE



Cutter Dia.	Cutter Width	Shank Dia.	Overall Length	HSS Item#	M42(8%) COBALT Item#
1/2	1/8	3/8	2-1/8	2006-0381	2006-0351*
3/4	3/16	3/8	2-1/8	2006-0383	----------
1	5/16	1/2	2-1/2	2006-0385	2006-0356*
1-1/2	1/2	3/4	2-3/4	2006-0387	----------

* Limited Supply

HSS 5 PC METAL SLITTING SAW KIT



- For general-purpose slotting and cut-off operations. Sides concave for smooth cuts.
- Mandrel: 1/8"





HIGH SPEED STEEL

5 PC SET
5071-5000
Includes: 7/8~1-3/4"

KIT INCLUDES:

Dia. (Inch)	Thickness (Inch)	Hole (Inch)
7/8	0.016	1/4
1	0.020	1/4
1-1/4	0.024	1/4
1-1/2	0.028	1/4
1-3/4	0.031	1/4

PLAIN METAL SLITTING SAWS

- **High-Speed Steel Construction** – Precision-ground HSS delivers long tool life, excellent wear resistance, and dependable cutting performance in a wide range of metals.
- **Clean, Accurate Slotting** – Concave side design minimizes friction to produce smoother cuts and more accurate slots with improved chip clearance.
- **Versatile Machining Applications** – Ideal for slotting, grooving, and cut-off operations on milling machines in toolrooms, machine shops, and production environments.
- **Secure Keyway Drive** – Most sizes feature a keyway for positive arbor engagement, helping reduce slippage and improve cutting stability during operation.
- **Multiple Sizes Available** – Offered in a variety of diameters, thicknesses, and tooth counts to match different materials and cutting requirements, providing flexibility for many machining jobs.



HIGH SPEED STEEL

Item #	Dia. (Inch)	No. of Teeth	Face (Inch)	Hole (Inch)
5071-4201	3	30	1/64	1
5071-4202	3	30	1/32	1
5071-4203	3	30	3/64	1
5071-4204	3	30	1/16	1
5071-4206	3	30	3/32	1
5071-4208	3	30	1/8	1
5071-4210	3	30	5/32	1
5071-4402	4	36	1/32	1
5071-4404	4	36	1/16	1
5071-4406	4	36	3/32	1
5071-4408	4	36	1/8	1
5071-4604	5	40	1/16	1
5071-4710*	5	40	5/32	1-1/4

* Limited Supply

SLOTTING SAW ARBORS

- Holds slitting saw blades securely (various hole sizes)
- Available in multiple shank styles (R8, 1/2", MT2 Morse taper)
- Precision-ground arbor body for accuracy
- Includes spacers/collars & mounting screw
- Rigid steel construction (high strength & durability)
- Compatible with a range of blade diameters and thicknesses
- Arbor keeps the saw blade centered and stable improving cut accuracy
- Reduces deflection and vibration cleaner slots and longer tool life
- Required to mount and drive the saw blade in milling machines
- **Used by:** CNC machinists, manual milling machine operators, tool & die makers, job shops & production shops, maintenance & repair (MRO) teams and fabrication and metalworking shops



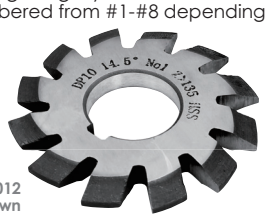




Item#	Shank	OAL	For Saw Hole Size
3900-0144	R8	5-3/32"	1/2, 5/8, 3/4, 7/8 & 1"
3900-0145	1/2"	2-9/16"	1/2, 5/8, 3/4, 7/8 & 1"
3906-0143	MT2	3-1/2"	1/2, 5/8, 3/4, 7/8 & 1"

14.5° & 20° PRESSURE ANGLE INVOLUTE GEAR CUTTERS

- Involute gear cutters make it possible to machine gears on your mill -either CNC mills or manual mills. The gear cutter is made into the involute profile, which transfers its shape to your gear blank, allowing it to run with other gears. The gear cutter needs to be matched to your gear specifications: diametral pitch or module, pressure angle, and even the number of teeth it will cut.
- The profile of all involute spur gears changes slightly as the tooth count changes, and so the profile of the gear cutter changes as well. Cutters are numbered from #1-#8 depending on how many teeth it will cut.
- For spur gears with 14.5° & 20°.
- Made from high speed steel.
- Ground from solid.
- Straight teeth on periphery of cutters.
- Bright finish.



2041-1012 Shown



2040-0825 Shown

HIGH SPEED STEEL

Cutter Number	Range of Teeth Cut
#1	135 to rack
#2	55-134
#3	35-54
#4	26-34
#5	21-25
#6	17-20
#7	14-16
#8	12-13

14.5° Pressure Angle

Pitch	Cutter Diameter	Arbor Hole	#1 Item#	#3 Item#	#4 Item#	#5 Item#	#6 Item#	#7 Item#	#8 Item#
10	2-3/4	1	**2041-1012**	**2041-1038**	----------	----------	**2041-1061**	----------	----------
12	2-5/8	1	**2041-1210**	----------	----------	----------	----------	**2041-1277**	**2041-1285**
16	2-1/2	1	----------	----------	----------	----------	----------	----------	**2041-1688**
20	2-3/8	1	----------	----------	----------	**2041-2051**	----------	----------	----------
48	1-3/4	7/8	----------	----------	**2041-4842**	----------	----------	**2041-4875**	**2041-4883**

20° Pressure Angle

Pitch	Cutter Diameter	Arbor Hole	#2 Item#	#3 Item#	#4 Item#	#7 Item#	#8 Item#
8	2-7/8	1	**2040-0825**	----------	----------	----------	----------
10	2-3/4	1	----------	----------	**2040-1047**	----------	----------
12	2-5/8	1	**2040-1229**	----------	**2040-1245**	**2040-1278**	**2040-1286**
16	2-1/2	1	----------	**2040-1633**	----------	**2040-1674**	**2040-1682**
20	2-3/8	1	----------	**2040-2137**	----------	----------	----------

KEYWAY BROACHES & SETS

HSS KEYWAY BROACH SETS - HEAVY DUTY • HIGH SPEED STEEL

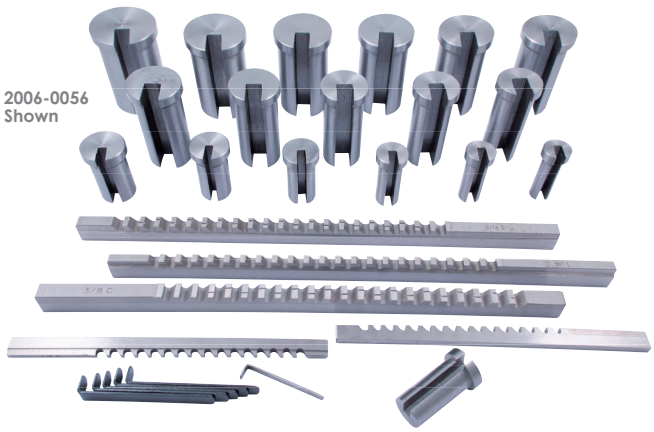
- Heavy duty.
- High speed steel.
- Provides great versatility.
- Specialty tools designed for cutting keyways in machined holes.
- Typically used manually with an arbor press or hydraulic press to produce the keyways.
- Well suited for use in a variety of ferrous and non-ferrous materials.
- Includes shims & wood case.

30 PC SET
2006-0056
INCLUDES: 5 Broaches, 18 Collared Bushings, 7 Shims

17 PC SET
2006-0054
INCLUDES: 4 Broaches, 9 Collared Bushings, 4 Shims



2006-0054 Shown



2006-0056 Shown



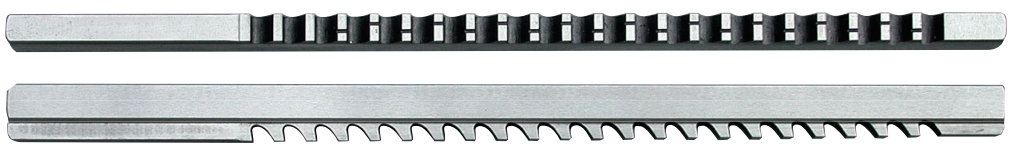
9 PC SET
2006-0051
INCLUDES: 3 Broaches, 5 Collared Bushings, 1 Shim

2006-0051 Shown

Item#	Set	Keyway Size	Broach Style	Collared Bushing	Keyway Combination
2006-0051	9 PC	1/16, 3/32, 1/8"	A	1/4, 5/16",3/8, 7/16",1/2"	15
2006-0054	17 PC	1/8, 3/16"	B	1/2, 5/8, 3/4, 7/8",	18
		1/4, 3/8"	C	1, 1-1/8, 1-1/4,1-3/8, 1-1/2"	
2006-0056	30 PC	1/8, 3/16"	B	1/2, 9/16, 5/8, 11/16, 3/4, 13/16, 7/8,	47
		1/4, 5/16, 3/8"	C	15/16, 1, 1-1/16, 1-1/8, 1-3/16, 1-1/4, 1-5/16, 1-3/8, 1-7/16, 1-1/2, 1-9/16"	

KEYWAY BROACHES - HEAVY DUTY • HIGH SPEED STEEL

- Broach is tapered and ground with bright finishing.
- Shim included.
- One-pass keyway broaches require appropriate guide bushing.



Item#	Broach Size	Type	Broach Dimensions	Shims Required	Length of Cut (Min.)	Length of Cut (Max)	Tolerances
2006-1008	1/8"	A	1/8 x 5	1	13/64	1-1/8	.1252~.1262
2006-1018	1/8"	B	3/16 x 6-3/4	1	19/64	1-11/16	.1252~.1262
2006-1022	3/16	B	3/16 x 6-3/4	1	19/64	1-11/16	.1877~.1887
2006-1024	3/16	C	3/8 x 11-3/4	1	25/64	2-1/2	.1877~.1887
2006-1026	1/4	C	3/8 x 11-3/4	1	25/64	2-1/2	.2502~.2512
2006-1030	5/16	C	3/8 x 11-3/4	2	25/64	2-1/2	.3127~.3137
2006-1034	3/8	C	3/8 x 11-3/4	2	25/64	2-1/2	.3755~.3765
2006-1046	1/2	D	9/16 x 13-7/8	3	1	6	.5006~.5016
2006-1050	5/8	E	3/4 x 15-1/2	4	1	6	.6260~.6270

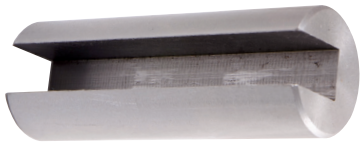
KEYWAY BUSHINGS

- Different size bushings enable the individual keyway broach to be used in a variety of sizes.



D,E STYLE: Plain
A,B,C STYLE: Collared

The letter designation signifies the body width of the keyway broach



STYLE "A", 1/8" SLOT-COLLARED

Bushing	Diameter	Item#
A	1/4	2006-1102
A	5/16	2006-1104
A	3/8	2006-1106
A	7/16	2006-1108
A	1/2	2006-1110

STYLE "B", 3/16" SLOT-COLLARED

Bushing	Diameter	Item#
B	1/2	2006-1202
B	9/16	2006-1204
B	5/8	2006-1206
B	11/16	2006-1208
B	3/4	2006-1210
B	13/16	2006-1212
B	7/8	2006-1214

STYLE "C", 3/8" SLOT-COLLARED

Bushing	Diameter	Item#
C	3/4	2006-1302
C	13/16	2006-1304
C	7/8	2006-1306
C	15/16	2006-1308*
C	1	2006-1310
C	1-1/16	2006-1312
C	1-1/8	2006-1314
C	1-3/16	2006-1316
C	1-1/4	2006-1318
C	1-5/16	2006-1320*
C	1-3/8	2006-1322
C	1-7/16	2006-1324
C	1-1/2	2006-1326
C	1-9/16	2006-1328*

STYLE "D", 9/16" PLAIN TYPE

Bushing	Diameter	Item#
D	1-7/16	2006-1402*
D	1-1/2	2006-1404*
D	1-9/16	2006-1406*
D	1-5/8	2006-1408*
D	1-11/16	2006-1410*
D	1-13/16	2006-1414*
D	1-7/8	2006-1416*
D	2-1/16	2006-1422*
D	2-5/16	2006-1430*
D	2-3/8	2006-1432*
D	2-7/16	2006-1434*
D	2-1/2	2006-1436*
D	2-9/16	2006-1438*
D	2-5/8	2006-1440*
D	2-11/16	2006-1442*
D	2-3/4	2006-1444*
D	2-13/16	2006-1446*
D	2-7/8	2006-1448*
D	2-15/16	2006-1450*
D	3	2006-1452*

STYLE "E", 3/4" SLOT-PLAIN TYPE

Bushing	Diameter	Item#
E	2-5/16	2006-1502
E	2-3/8	2006-1504
E	2-9/16	2006-1510
E	2-5/8	2006-1512
E	2-11/16	2006-1514
E	2-3/4	2006-1516
E	2-13/16	2006-1518
E	2-7/8	2006-1520
E	2-15/16	2006-1522
E	3	2006-1524

* Limited Supply

SQUARE PUSH BROACHES - HEAVY DUTY • HIGH SPEED STEEL

- Broach is tapered and ground with bright finishing.
- Used for cutting square shaped hole in round pilot holes.
- Well suited for ferrous and non-ferrous materials.



Item#	Broach Size	Broach Length	Pilot Dia.	(Inch) Drill Size	Length of Cut Min.	Length of Cut Max.	Tolerance
2006-0114	1/4	6-1/2	17/64	17/64	1/4	3/4	.2505~.2515
2006-0122	3/8	9-3/8	25/64	25/64	3/8	1-1/4	.3755~.3765
2006-0124	7/16	10-7/8	29/64	9/64	1/2	1-3/8	.4385~.4395
2006-0126	1/2	12	17/32	17/32	1/2	1-3/8	.5005~.5015
2006-0138	3/4	17-3/4	13/16	13/16	5/8	1-5/8	.7510~.7520

SHIMS - FOR KEYWAY BROACHES



A Style



C Style

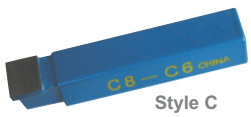
Item#	Style-Size
2006-1552	A-1/8"
2006-1556	B-1/8"
2006-1558	B-5/32"
2006-1562	B-3/16"
2006-1566	C-3/16"
2006-1570	C-1/4 & 3/8"

Item#	Style-Size
2006-1574	C-5/16"
2006-1578	D-5/16"
2006-1582	D-3/8 & 1/2"
2006-1586	D-7/16"
2006-1590	E-5/8 & 3/4"
2006-1594	F-7/8 & 1"

CARBIDE-TIPPED SINGLE-POINT BRAZED TOOL BITS

- **Carbide Brazed Tip** – Hard cutting edge permanently brazed to a steel shank
- Steel Shank Body-Tough, shock-resistant base for rigidity and durability
- **Pre-Ground Cutting Geometry (Styles A–E)** – Designed for specific operations (turning, facing, boring, etc.)
- **Long Tool Life** – Carbide edges resist wear and last significantly longer than HSS
- High Material Removal Rates
- **Handles High Heat & Speed** – Maintains hardness at high cutting temperatures for faster machining
- **Durable Under Load** – Steel body absorbs shock, reducing breakage

GRADE C-2 for cast iron and non-ferrous materials
GRADE C-6 for steel and steel alloys.



Style C

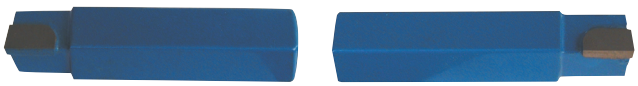
(Inch) Size	OAL	Style C Tool Style	C-6 Item#
1/4	2	C-4	2008-1104
5/16	2-1/4	C-5	2008-1105
3/8	2-1/2	C-6	2008-1106
1/2	3-1/2	C-8	2008-1108

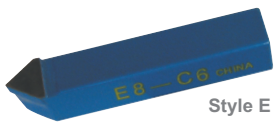


Style D

(Inch) Size	OAL	Style D Tool Style	C-6 Item#
1/4	2	D-4	2008-1204
3/8	2-1/2	D-6	2008-1206
1/2	3-1/2	D-8	2008-1208

RIGHT HAND CUTS FROM RIGHT TO LEFT
LEFT HAND CUTS FROM LEFT TO RIGHT


Style A



Style E

(Inch) Size	OAL	Style E Tool Style	C-6 Item#
1/4	2	E-4	2008-1304
5/16	2-1/4	E-5	2008-1305
3/8	2-1/2	E-6	2008-1306
1/2	3-1/2	E-8	2008-1308
5/8	4	E-10	2008-1310

Style A (Inch) Size	OAL	Right Hand Tool Style	Right Hand C-2 Item#	Right Hand C-6 Item#	Left hand Tool Style	Left hand C-2 Item#	Left hand C-6 Item#
1/4	2	AR-4	2008-0014	2008-0004	AL-4	2008-1014	2008-1004
5/16	2-1/4	AR-5	2008-0015	2008-0005	AL-5	2008-1015	2008-1005
3/8	2-1/2	AR-6	2008-0016	2008-0006	AL-6	2008-1016	2008-1006
1/2	3-1/2	AR-8	2008-0018	2008-0008	AL-8	2008-1018	2008-1008
5/8	4	AR-10	2008-0020	2008-0010	AL-10	2008-1020	2008-1010
3/4	4-1/2	AR-12	----------	2008-0012	---	----------	----------

8 PC HSS LATHE TURNING TOOL SETS

- Square shank sizes.
- Manufactured from HSS (M-2) material.
- Shanks are heat treated and ground.

Item #	Shank	Shank Length
2006-9022	1/4	2-1/2
2006-9024	5/16	3-1/8
2006-9026	3/8	3-1/8
2006-9028	1/2	4

Set Includes:

No.1 Left-Hand Turning Tool (80°),
No.2 Right-Hand Turning Tool(80°),
No.3 Straight Finishing Tool, No.4 Corner (45°) Tool,
No.5 Parting Tool, No.6 Boring Tool,
No.7 Threading (60°) Tool, No.8 Corner (60°) Tool.
Fitted Case.



HSS ROUND TOOL BITS

- High Speed Steel (HSS) Construction-Tough, heat-resistant tool steel for dependable cutting
- Round Blank Design
- Un-ground / Custom Grind Capability-Allows users to grind specific angles and profiles
- **Shock-Resistant Material** – More forgiving than carbide in interrupted cuts

HIGH SPEED STEEL



Item#	Size (Inch)
2000-0331	1/8 x 2-3/4
2000-0353	3/16 x 3-1/2
2000-0377	1/4 x 4
2000-0385	3/8 x 5
2000-0389	1/2 x 6

FLY CUTTERS - Morse Taper & R8

- A fly cutter usually has two cutting heads and it is able to cut with a constant depth to face any surface to obtain a uniform surface.
- Utilizes standard tool bits.
- Counter balanced.
- Made of durable hardened steel.
- Includes 3 screws to tighten tool bit in place


R8 4002-0018 Shown


Morse Taper 4006-0022 Shown



INDIVIDUALS

Item#	Shank	Diameter of Head (In)	Fit Tool Bit (In)	Drawbar Thread
4006-0022	MT2	1.5	3/16	3/8~16
4006-0023	MT3	1.5	1/4	1/2~13
4002-0018	R8	2.5	3/8 or Smaller	7/16-20

SQUARE TOOL BITS - REGULAR LENGTH

- **M2 HIGH SPEED STEEL** – A fine general purpose ground tool bits show exceptional result on mild steel, alloys and tool steels. This tool bit makes a superior finishing tool.
- **M42 8% COBALT** – Superior types of high speed steel which will work better where high heat is present. Used for heavy cuts in hard materials.
- **5% Cobalt M35 High-Speed Steel** – Enhanced with cobalt for superior heat resistance, strength, and durability compared to standard HSS tool bits.



Size (Inch) SQ x OAL	HSS Item#	M42 8% Cobalt Item#	M35 5% Cobalt Item#
1/8 x 2-1/2	----------	2000-0041	2000-6141
3/16 x 2-1/2	2000-0002	2000-0042	2000-6142
1/4 x 2-1/2	2000-0003	2000-0043	2000-6143
5/16 x 2-1/2	2000-0004	2000-0044	2000-6144
3/8 x 3	2000-0005	2000-0045	2000-6145
7/16 x 3-1/2	2000-0006	2000-0046	2000-6146
1/2 x 4	2000-0007	2000-0047	2000-6147
5/8 x 4-1/2	2000-0008	2000-0048	----------
3/4 x 5	2000-0009	2000-0049	----------
1 x 7	2000-0011	2000-0051	----------

SQUARE TOOL BITS - EXTRA LONG LENGTH

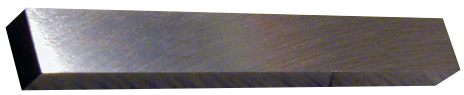
- **M2 HIGH SPEED STEEL** – A fine general purpose ground tool bits show exceptional result on mild steel, alloys and tool steels. This tool bit makes a superior finishing tool.
- **M35(5%)COBALT** – Superior types of high speed steel which will work better where high heat is present. Used for heavy cuts in hard materials.



Size (Inch) SQ x OAL	HSS Item#	M35 5% Cobalt Item#
1/4 x 4	2000-0071	2000-0020
1/4 x 6	2000-0072	2000-0021
1/4 x 8	2000-0073	2000-0022
5/16 x 6	2000-0075	2000-0025
3/8 x 4	2000-0077	2000-0027
3/8 x 6	2000-0078	2000-0028
3/8 x 8	2000-0079	----------
1/2 x 6	2000-0083	2000-0060

HSS RECTANGULAR TOOL BITS

HIGH SPEED STEEL



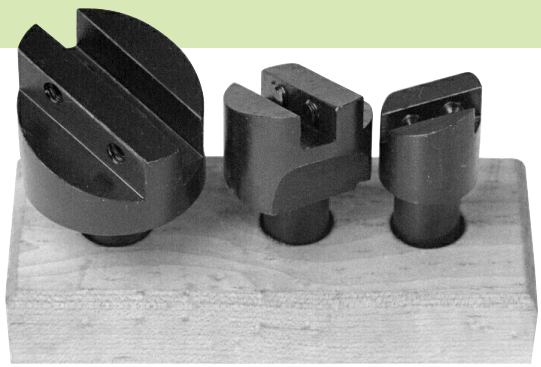
Item#	Size (Inch)
2000-0203	1/4 x 3/8 x 3
2000-0220	1/4 x 1/2 x 4
2000-0235	1/4 x 3/4 x 5
2000-0248	3/8 x 3/4 x 5
2000-0252*	3/8 x 1-1/4 x 6
2000-0257	1/2 x 3/4 x 5

* Limited Supply

3 PC FLY CUTTER SETS - STRAIGHT SHANK

- Utilizes standard tool bits.
- Counter balanced.
- Made of durable hardened steel.
- Cuts flat and smooth surface with a single cut.

Item#	Set	Diameter Tool Bit Head (In)	Shank (In)	Fit (In)
4002-0001	3	3/4 1-1/8 1-1/2	1/2	3/16 1/4 5/16
4002-0002	3	1-1/2 2 2-1/2	3/4	5/16 5/16 5/16
4002-0003	3	1-1/2 2 2-1/2	3/4	3/8 3/8 1/2



TOOL BITS NOT INCLUDED !

3 PC FLY CUTTER SET - 12MM STRAIGHT SHANK

- **Precision Face Milling Performance** – Designed for accurate face milling and surfacing operations where surface finish and control are critical.
- **Durable Hardened Steel Construction** – Manufactured from durable, hardened steel for long service life, rigidity, and reliable cutting performance.
- **Counterbalanced for Smooth Operation** – Balanced design reduces vibration, improves surface finish, and delivers consistent machining results.
- **Uses Standard Tool Bits** – Compatible with common tool bit sizes for easy replacement and flexibility across applications.
- **Complete 3 PC Set** – Includes three fly cutters, tool bits, and hex keys—ready to use right out of the box.



12mm STRAIGHT SHANK

Sizes Included:

Diameter Tool Bit Head (In)	Shank	Fits Tool Bit (In)
23/32"/18mm	12mm	3/16
1-3/32"/28mm	12mm	1/4
1-3/8"/34.5mm	12mm	5/16

3 PC SET
4006-0012

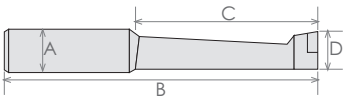


TOOL BITS INCLUDED !

BORING BARS & SETS

CARBIDE-TIPPED BORING BAR SETS

- Quality tool designed to be used as a boring tool bit.
- All shanks are held to 0.000 - 0.0005" from the nominal size.
- Shanks are made of special heat treated alloy steel.
- Three lengths for each minimum bore size.



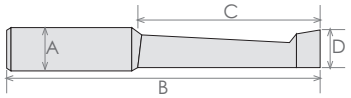


GRADE C-6
FOR ALL STEEL
AND ALL PURPOSE

C-6 Item#	A Shank Dia. (In)	Set PC.	B (In) Length	C (In) Bore Depth	D (In) Min.bore
			2	3/4	5/16
			2-3/8	1-1/8	5/16
			2-3/4	1-1/2	5/16
			2-3/16	15/16	3/8
1001-0001	3/8	9	2-21/32	1-13/32	3/8
			3-1/8	1-7/8	3/8
			2-3/8	1-1/8	7/16
			3-15/16	1-11/16	7/16
			3-1/2	2-1/4	7/16
			2-1/4	3/4	5/16
			2-5/8	1-1/8	5/16
			3	1-1/2	5/16
1001-0002	1/2	9	2-5/8	1-1/8	7/16
			3-3/16	1-11/16	7/16
			3-3/4	2-1/4	7/16
			3	1-1/2	9/16
			3-3/4	2-1/4	9/16
			4-1/2	3	9/16
			2-1/4	3/4	5/16
			2-5/8	1-1/8	5/16
			3	1-1/2	5/16
			2-5/8	1-1/8	7/16
			3-3/16	1-11/16	7/16
1001-0003	5/8	12	3-3/4	2-1/4	7/16
			3	1-1/2	9/16
			3-3/4	2-1/4	9/16
			4-1/2	3	9/16
			3-3/8	1-7/8	11/16
			4-5/16	2-13/16	11/16
			5-1/4	3-3/4	11/16
			3-1/8	1-1/8	7/16
			3-11/16	1-11/16	7/16
			4-1/4	2-1/4	7/16
			3-1/2	1-1/2	9/16
			4-1/4	2-1/4	9/16
			5	3	9/16
1001-0004	3/4	12	3-7/8	1-7/8	11/16
			4-13/16	2-13/16	11/16
			5-3/4	3-3/4	11/16
			4-1/4	2-1/4	13/16
			5-3/8	3-3/8	13/16
			6-1/2	4-1/2	13/16
			5	3	9/16
			5-3/4	3-3/4	11/16
			6-1/2	4-1/2	7/8
1001-0005	1	7	6-1/2	4-1/2	1-1/16
			7-3/4	5-3/4	1-1/4
			8-1/4	6-1/2	1-1/2
			9-1/2	7-1/2	1-5/8

COBALT (M42) BORING BAR SETS

- One piece cobalt structure to give more boring accuracy and longer life.
- All purpose.
- All shanks are held 0.000~0.005" from the nominal size.
- **M42 (8%) COBALT** used for boring in tough high tensile strength materials like stainless steel, titanium and inconel.





Item#	B (In) Length	C (In) Bore Depth	D (In) Min.bore
	2	3/4	1/4
	2-3/8	1-1/8	1/4
	2-3/4	1-1/2	5/16
1001-0033	2-3/16	15/16	3/8
(8 pc/set)	2-21/32	1-13/32	3/8
	3-1/8	1-7/8	3/8
	2-3/8	1-1/8	7/16
	3-15/16	1-11/16	7/16
	2-1/8	5/8	5/16
	2-1/4	3/4	5/16
	2-5/8	1-1/8	5/16
	3	1-1/2	5/16
1001-0036	2-5/8	1-1/8	7/16
(10 pc/set)	3-3/16	1-11/16	7/16
	3-3/4	2-1/4	7/16
	3	1-1/2	9/16
	3-3/4	2-1/4	9/16
	4-1/2	3	9/16

8 PC SET
3/8" SHANK
1001–0033

M42 8% COBALT
MADE OF
SOLID COBALT

10 PC SET
1/2" SHANK
1001–0036

DOUBLE-END BORING BARS & SETS

- Machined from selected steel for greater strength and rigidity.
- Broached holes accept standard tool bits.
- Black oxide finish.
- Bars have one 45° end and one 90° end.



Tool Bits Not Included

ONE 90° END AND ONE 45° END

INDIVIDUALS

Item#	Bar Dia.	Bar OAL	Bit Size	Bit Type
1015-0250*	1/4"	5	5/32	Round
1015-0312*	5/16"	5	3/16	Round
1015-0375*	3/8"	6	3/16	Round
1015-0500	1/2"	6	3/16	Square
1015-0502	1/2"	9	3/16	Square
1015-0561*	9/16"	6-3/4	3/16	Square
1015-0625	5/8"	10	1/4	Square
1015-0748*	3/4"	8	1/4	Square
1015-0750	3/4"	12	1/4	Square
1015-0938*	15/16"	9	5/16	Square
1015-1000	1"	12	5/16	Square
1015-1001*	1"	12	1/4	Square
1015-1004*	1-1/8"	14	7/16	Square
1015-1250	1-1/4"	16	1/2	Square
1015-1500	1-1/2"	18	1/2	Square

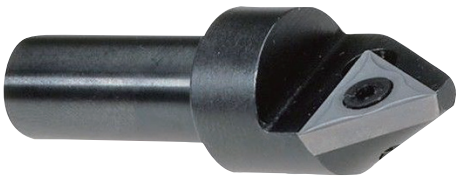
* Limited Supply



SETS

Item#	No. of Pieces	Includes
1001-0007	4	1015-0250, 1015-0312, 1015-0375 & 1015-0500
1001-0008	5	1015-0250, 1015-0375, 1015-0500, 1015-0625 & 1015-0750
1001-0010	5	1015-0375, 1015-0500, 1015-0625, 1015-0750 & 1015-1000

82° INDEXABLE COUNTERSINK & CHAMFER TOOLS



- Deburr and countersink large diameter holes.
- Positive rake for smooth cutting without chatter.
- Carbide indexable tool, so re-sharpening tool needed.
- 7° relief.



INSERTS INCLUDED

Item#	Max. Cutting Dia.	Min. Cutting Dia.	Shank Dia.	No. of Inserts	Insert Used	Screw	Torx Wrench
2001-0036	3/4"	1/4"	1/2"	1	TC_ _32.5_	M4x8	T15
2001-0038	1-3/4"	1/2"	1/2"	1	SC_ _43_	M5x10	T20
2001-0040	2-1/2"	1-1/4"	3/4"	1	SC_ _43_	M5x10	T20

INSERTS - Replacement

Item #	Size
6004-9031	TCMT32.51
6004-4432	SCMT432

SCREWS - Replacement

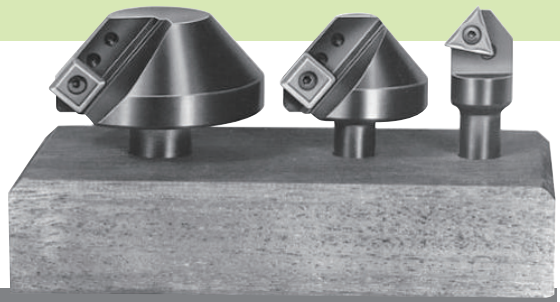
Item #	Size
2100-0069	M4x8
2100-0075	M5x10

TORX WRENCHES - Replacement

Item #	Size
2100-0095	T15
2100-0096	T20

3 PC INDEXABLE COUNTERSINK & CHAMFERING TOOL SETS

- Indexable inserts eliminate costly resharpening.
- 7° relief angle for smoother cutting action.
- Covers 60°, 82°, and 90° chamfering applications.
- Ideal for deburring and countersinking large holes.
- Positive rake design provides smooth cutting action.
- **Set Includes:** 1/4 x 3/4 x 1/2 shank, 1/2 x 1-3/4 x 1/2" shank, 1-1/4 x 2-1/2 x 3/4" shank, C6 inserts and wrenches (T15 & T20) for quick setup and maintenance.



Item#	Degree	Max. Cutting Dia.	Min. Cutting Dia.	Shank Dia.	No. of Inserts	Insert Used	Screw	Torx Wrench
2001-0010*	60°	3/4"	1/4"	1/2"	1	TC_ _32.5_	M4x8	T15
2001-0011	82°	1-3/4"	1/2"	1/2"	1	SC_ _43_	M5x10	T20
2001-0012	90°	2-1/2"	1-1/4"	3/4"	1	SC_ _43_	M5x10	T20

* Limited Supply

INSERTS - Replacement

Item #	Size
6004-9031	TCMT32.51
6004-4432	SCMT432

SCREWS - Replacement

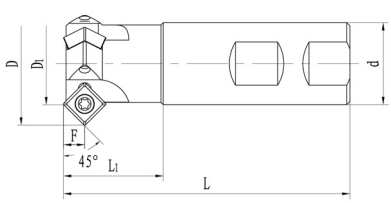
Item #	Size
2100-0069	M4x8
2100-0075	M5x10

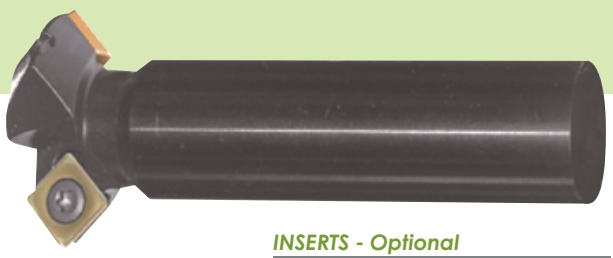
TORX WRENCHES - Replacement

Item #	Size
2100-0095	T15
2100-0096	T20

45° INDEXIABLE CHAMFERING END MILLS
-ACCEPTS SPMT CARBIDE INSERT

- 45° chamfering design creates clean, accurate edge breaks.
- Indexable carbide insert reduces tooling costs and downtime.
- Straight shank fits a wide range of milling machines.
- Includes end mill, screws & torx wrench.





INSERTS NOT INCLUDED

INSERTS - Optional

Item #	Size
6018-3251	SPMT32.51
6018-3252	SPMT32.52

Item#	Max. Cutting Dia.	Min. Cutting Dia.	Shank Dia.	OAL	No. of Inserts	Use Insert	Screw	Torx Wrench
2076-0001	1"	0.528"	3/4"	3-3/8"	2	SP_ _32.5_	M4x10	T15
2076-0003	1-1/8"	0.652"	3/4"	3-3/8"	2	SP_ _32.5_	M4x8	T15
2076-0006	1-1/4"	0.776"	3/4"	3-3/8"	2	SP_ _32.5_	M4x10	T15
2076-0010	1-1/2"	1.025"	1"	3-1/2"	3	SP_ _32.5_	M4x10	T15
2076-0013	1-3/4"	1.274"	1-1/4"	3-1/2"	3	SP_ _32.5_	M4x10	T15
2076-0016	2"	1.522"	1-1/2"	4"	4	SP_ _32.5_	M4x10	T15

SCREWS - Replacement

Item #	Size
2100-0069	M4x8
2100-0074	M4x10

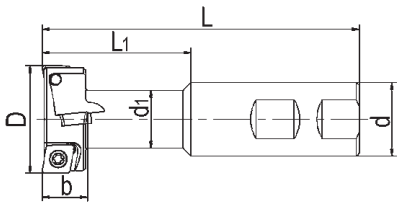
TORX WRENCH - Replacement

Item #	Size
2100-0095	T15

INDEXABLE CUTTERS

INDEXABLE T-SLOT CUTTERS - Accepts CCMT Carbide Inserts

- 7° relief.
- Setting rake 90°.
- For milling, "T" slotting, bottom shouldering & side slotting.
- Weldon shank.
- Includes: Screws and Wrench.







INSERTS NOT INCLUDED

Item#	Cutting Dia. D	Cutter Thickness b	Shank Dia. d	OAL L	Neck Dia. d1	No. of Inserts	Insert Used	Screw	Torx Wrench
2077-0500	31/32"	25/64"	3/4"	3-3/4"	17/32"	4	CC_ _21.5_	M2.5x6	T8
2077-0502	5/8"	17/32"	1"	4-3/8"	41/64"	4	CC_ _32.5_	M4x8	T15
2077-0504	1-15/32"	5/8"	1"	4-3/4"	25/32"	4	CC_ _32.5_	M4x10	T15

INSERTS - Optional

Item #	Size
6053-0111	CCMT21.51
6053-0112	CCMT21.51
6053-0221	CCMT32.51
6053-0222	CCMT32.52

SCREWS - Replacement

Item #	Size
2100-0070	M2.5x6
2100-0069	M4x8
2100-0074	M4x10
2100-0075	M5x10

TORX WRENCHES - Replacement

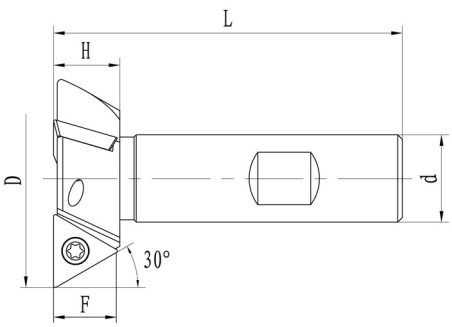
Item #	Size
2100-0092	T8
2100-0095	T15
2100-0096	T20

60° INDEXIABLE DOVETAIL CUTTERS - Accepts TDEX Carbide Inserts

- Right hand cut.
- 60° angle, 15° clearance.
- For milling, roughing & finishing at high speeds & feeds.
- Inserts are not included.
- Includes: Screws and wrench



INSERTS NOT INCLUDED



Item#	Cutting Dia. D	Shank Dia. d	OAL L	Cutting Depth F	Height H	No. of Insert	Insert Used	Screw	Torx Wrench
2075-0500	1/2"	3/8"	2.390"	0.32"	0.375"	1	TDEX21.5	M2.5x5	T8
2075-0502	3/4"	3/8"	2.390"	0.32"	0.375"	2	TDEX21.5	M2.5x6	T8
2075-0504	1"	1/2"	2.375"	0.32"	0.375"	3	TDEX21.5	M2.5x6	T8
2075-0506	1-3/8"	5/8"	2.862"	0.51"	0.550"	3	TDEX32	M4x10	T15
2075-0508	1-7/8"	3/4"	3"	0.51"	0.550"	3	TDEX32	M4x10	T15
2075-0510	2-1/4"	1"	3.5"	0.70"	0.750"	3	TDEX43	M5x11	T20
2075-0512	2-1/2"	1"	3.5"	0.70"	0.750"	3	TDEX43	M5x11	T20

INSERTS - Optional

Item #	Size
6062-0215	TDEX21.5
6062-0320	TDEX32
6062-0430	TDEX43

SCREWS - Replacement

Item #	Size
2100-0067	M2.5x5
2100-0070	M2.5x6
2100-0074	M4x10
2100-0079	M5x11

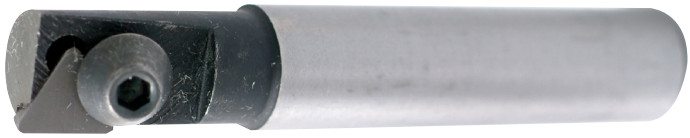
TORX WRENCHES - Replacement

Item #	Size
2100-0092	T8
2100-0095	T15
2100-0096	T20

MINI INDEXABLE END MILLS & SET

- Indexable carbide insert reduces tooling costs and downtime.
- Hardened tool steel body provides strength and durability.
- Available in multiple cutting diameters for versatile milling applications
- Inserts included.

3 PC SET
8005-0020
1/2, 9/16 & 5/8"



Item#	Cutting Dia.	Shank Dia.	Body Length	OAL	No. of Insert	Inserts	Locking Screw
5820-0500*	1/2"	1/2"	1"	3"	1	TP_ 22_	PM5x5
5820-0562*	9/16"	1/2"	1"	3"	1	TP_ 22_	PM5x5
5820-0625*	5/8"	1/2"	1"	3"	1	TP_ 22_	PM5x5

* Limited Supply

TPG carbide inserts shown below.

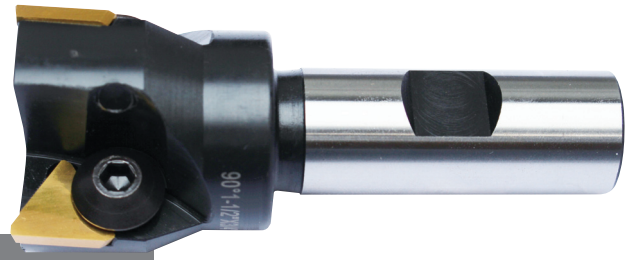
SCREW - Replacement

Item #	Size
2100-0105	PM5x5

90° SQUARE SHOULDER INDEXABLE END MILLS - Straight Shank

- For use in heavy duty milling application.
- Higher metal removal rates.
- Cutting rake angle 0°.
- Axial rake angle 0°.
- Setting angle 90°.
- Positive rake 90°.
- Right hand cut.
- Unique clamping mechanism. One clamp fits all sizes.
- **Inserts included.**

STRAIGHT SHANK



Item#	Cutting Dia. D	Shank Dia. d	OAL L	No. of Inserts	Inserts Used	Screw	Torx Wrench
5820-0750*	3/4"	3/4"	3-1/4"	2	TP_ _22_	PM5x8	S3
5820-1000	1"	3/4"	3-1/4"	2	TP_ _22_	PM5x8	S3
5820-1250	1-1/4"	3/4"	3-3/8"	2	TP_ _32_	PM6x12	S4
5820-1500	1-1/2"	3/4"	3-1/2"	3	TP_ _32_	PM6x12	S4
5820-1750	1-3/4"	3/4"	3-1/2"	3	TP_ _32_	PM6x12	S4
5820-2000	2"	3/4"	3-3/4"	3	TP_ _43_	PM8x16	S5

* Limited Supply

TPG carbide inserts shown below.

SCREWS - Replacement

Item #	Size
2100-0105	PM5x8
2100-0106	PM6x12
2100-0108	PM8x16

R8 INDEXABLE END MILLS & SET

- For use in heavy duty milling application.
- Higher metal removal rates.
- Unique clamping mechanism. One clamp fits all sizes.
- **Inserts included.**

R8 SHANK

TPG carbide inserts shown below.



INDIVIDUALS

Item#	Cutting Dia.	Shank Dia.	OAL	No. of Inserts	Insert Used	Locking Screw	Torx Wrench
1006-0005	1"	R8	5-9/16"	2	TP_ _22_	PM5x8	S3
1006-0006	1-1/4"	R8	5-9/16"	2	TP_ _32_	PM6x12	S4
1006-0011	1-1/2"	R8	5-9/16"	3	TP_ _32_	PM6x12	S4
1006-0012	2"	R8	6"	3	TP_ _32_	PM6x12	S4

3 PC SET
5820-0001
1, 1-1/4 & 1-1/2"

SCREWS - Replacement

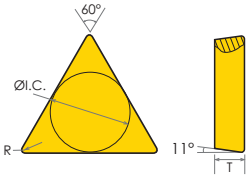
Item #	Size
2100-0105	PM5x8
2100-0106	PM6x12

TPG - POSITIVE RAKE CARBIDE INSERTS TPG

GRADE C-2 FOR CAST IRON AND GENERAL PURPOSE
GRADE C-6 FOR ALL STEEL AND GENERAL PURPOSE

- Single sided without chipbreaker.
- Suitable for difficult to cut materials.
- 11° relief angle.





10 PC PER PACKAGE

* Limited Supply

Insert No.	I.C.	(Inch) T	R	Uncoated C-2 Item#	Uncoated C-6 Item#	TiN Coated (C-6) Item#
TPG-21.51	1/4	.094	1/64	---------	--------	**6020-1121**
TPG-221	1/4	1/8	1/64	**6020-2221**	--------	**6020-1221**
TPG-222	1/4	1/8	1/32	**6020-2222**	**6020-0222**	**6020-1222**
TPG-223	1/4	1/8	3/64	---------	**6020-0223***	**6020-1223***
TPG-32.51	3/8	5/32	1/64	---------	--------	**6020-1122***
TPG-321	3/8	1/8	1/64	**6020-2321**	**6020-0321**	**6020-1321**
TPG-322	3/8	1/8	1/32	**6020-2322**	**6020-0322**	**6020-1322**
TPG-323	3/8	1/8	3/64	**6020-2323***	**6020-0323**	**6020-1323**
TPG-324	3/8	1/8	1/16	**6020-2324***	--------	**6020-1324**
TPG-431	1/2	3/16	1/64	**6020-2431***	--------	**6020-1431**
TPG-432	1/2	3/16	1/32	---------	--------	**6020-1432**
TPG-433	1/2	3/16	3/64	---------	**6020-0433***	**6020-1433***
TPG-434	1/2	3/16	1/16	**6020-2434***	**6020-0434***	**6020-1434***

INDEXABLE END MILLS

SQUARE SHOULDER INDEXABLE END MILLS - Accepts APKT(10mm) Carbide Insert

- 90° square shoulder milling
- Used for slotting and peripheral milling
- Uses standard APKT-1003 inserts (not included)
- Excellent alternative to HSS, cobalt and carbide end mills for heavy material removal rates

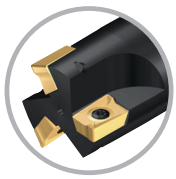


SQUARE SHOULDER

Item#	Cutter Dia.	Shank Dia.	(Inch) OAL	No of Inserts	Use Insert	Screw	Torx Wrench
5822-0375	3/8	1/2	3"	1	APKT1003	M2.5x6	T8
5822-0500	1/2	5/8	3-1/4"	1	APKT1003	M2.5x6	T8
5822-0625	5/8	5/8	3-1/4"	2	APKT1003	M2.5x6	T8
5822-0750	3/4	3/4	3-1/4"	3	APKT1003	M2.5x6	T8
5822-1250*	1-1/4	1-1/4	3-3/4"	5	APKT1003	M2.5x6	T8
5822-1500*	1-1/2	1-1/2	4-1/4"	6	APKT1003	M2.5x6	T8

* Limited Supply

INSERTS NOT INCLUDED



INSERT - Optional

Item #	Size
6010-4203	APKT1003

SCREWS - Replacement

Item #	Size
2100-0070	M2.5x6

TORX WRENCH - Replacement

Item #	Size
2100-0092	T8

3 PC SQUARE SHOULDER INDEXABLE END MILL SET - Accepts APKT (10MM)

- 90° square shoulder milling
- Used for slotting and peripheral milling
- Excellent alternative to HSS, cobalt and carbide end mills for heavy material removal rates
- Used standard APKT-1003 inserts (not included) with M2.5x6mm screws.

SQUARE SHOULDER

3 PC SET
5822-0360







INSERTS NOT INCLUDED

Cutting Dia.	Shank Dia.	OAL L	No. of Inserts	Insert Used	Screw	Torx Wrench
3/8"	1/2"	3"	1	APKT1003	M2.5x5mm	T8
1/2"	1/2"	3"	1	APKT1003	M2.5x5mm	T8
5/8"	1/2"	3"	2	APKT1003	M2.5x6mm	T8

INSERT - Optional

Item #	Size
6010-4203	APKT1003

TORX WRENCH - Replacement

Item #	Size
2100-0092	T8

SCREWS - Replacement

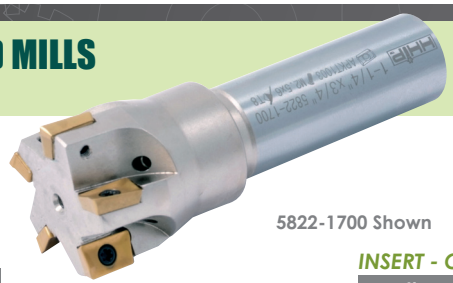
Item #	Size
2100-0067	M2.5x5
2100-0070	M2.5x6

SQUARE SHOULDER COOLANT-THRU INDEXABLE END MILLS - Accepts APKT(10mm) Carbide Insert

- Coolant thru.
- 90° square shoulder milling
- Used for slotting and peripheral milling
- Excellent alternative to HSS, cobalt and carbide end mills for heavy material removal rates
- Uses standard APKT-1003 inserts (not included).

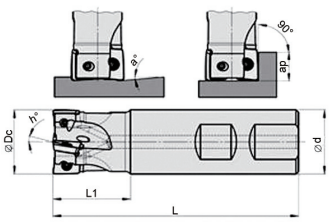
SQUARE SHOULDER

INSERTS NOT INCLUDED



5822-1700 Shown





Item#	Cutting Dia. D	Shank Dia. d	OAL L	No. of Inserts	Use Insert	Screw	Torx Wrench
5822-1601	3/8"	1/2"	3"	1	APKT1003	M2.5x6	T8
5822-1603	1/2"	1/2"	3-1/4"	1	APKT1003	M2.5x6	T8
5822-1605	5/8"	1/2'	3-1/4"	2	APKT1003	M2.5x6	T8
5822-1606	3/4"	3/4"	3-1/2"	3	APKT1003	M2.5x6	T8
5822-1608	1"	3/4"	3-1/2"	4	APKT1003	M2.5x6	T8
5822-1700	1-1/4"	3/4"	3-3/4"	5	APKT1003	M2.5x6	T8

INSERT - Optional

Item #	Size
6010-4203	APKT1003

SCREW - Replacement

Item #	Size
2100-0070	M2.5x6

TORX WRENCH - Replacement

Item #	Size
2100-0092	T8

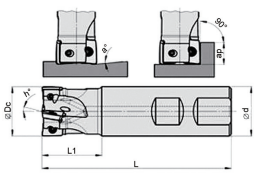
3 PC SQUARE SHOULDER COOLANT-THRU INDEXABLE END MILL SET - Accepts APKT(10mm) Carbide Inserts

- Coolant thru.
- 90° square shoulder milling
- Used for slotting and peripheral milling
- Excellent alternative to HSS, cobalt and carbide end mills for heavy material removal rates
- Uses standard APKT-1003 inserts (not included) with M2.5x6mm screws.

SQUARE SHOULDER

3 PC SET
5822-1710*

* Limited Supply



INSERTS NOT INCLUDED





Cutting Dia. D	Shank Dia. d	OAL L	No. of Inserts	Insert Used	Screw	Torx Wrench
3/8"	1/2"	3"	1	APKT1003	M2.5x5mm	T8
1/2"	1/2"	3"	1	APKT1003	M2.5x5mm	T8
5/8"	1/2"	3"	2	APKT1003	M2.5x6mm	T8

INSERT - Optional

Item #	Size
6010-4203	APKT1003

TORX WRENCH - Replacement

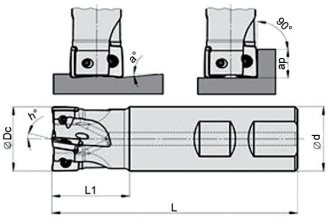
Item #	Size
2100-0092	T8

SCREWS - Replacement

Item #	Size
2100-0067	M2.5x5
2100-0070	M2.5x6

SQUARE SHOULDER MT2 SHANK INDEXABLE END MILLS
- Accepts APKT(10mm) Carbide Insert

- 90° square shoulder milling
- Used for slotting and peripheral milling
- Excellent alternative to HSS, cobalt and carbide end mills for heavy material removal rates
- Uses standard APKT-1003 inserts which are included.
- T8 torx wrench included





SQUARE SHOULDER

INSERTS ARE INCLUDED

Item#	Cutting Dia. D	Shank Taper	OAL L	No. of Inserts	Use Insert	Screw	Torx Wrench	Drawbar End
5896-1020	20mm	MT2	114mm	3	APKT1003	M2.5x6	T8	M10x1.50
5896-1022	25mm	MT3	128mm	3	APKT1003	M2.5x6	T8	M12x1.75

INSERT - Replacement

Item #	Size
6010-4203	APKT1003

SCREW - Replacement

Item #	Size
2100-0070	M2.5x6

TORX WRENCH - Replacement

Item #	Size
2100-0092	T8

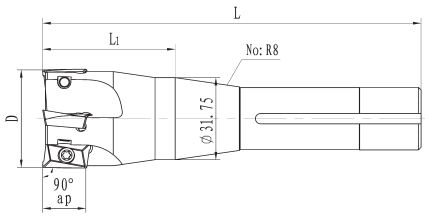
90° SQUARE SHOULDER R8 SHANK INDEXABLE END MILLS
- Accepts APKT(16mm) Carbide Insert

- R8 shank.
- 90° cutting angle.
- Screwdown insert
- Used for slotting and periphial milling.
- **Insert is NOT included.**

INSERTS NOT INCLUDED



SQUARE SHOULDER



Item#	Cutting Dia. D	Shank Dia. d	OAL L	No. of Inserts	Use Insert	Screw	Torx Wr.
5822-3000	1"	R8	5-27/32"	2	APKT1604	M4x8	T15
5822-3250	1-1/4"	R8	5-27/32"	3	APKT1604	M4x8	T15
5822-3500	1-1/2"	R8	6-1/8"	4	APKT1604	M4x10	T15
5822-4000	2"	R8	6-1/8"	5	APKT1604	M4x10	T15
5822-5000	3"	R8	6-1/4"	6	APKT1604	M4x10	T15

INSERT - Optional

Item #	Size
6010-4003	APKT1604

SCREWS - Replacement

Item #	Size
2100-0069	M4x8
2100-0074	M4x10

TORX WRENCH - Replacement

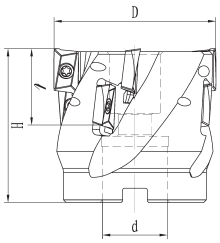
Item #	Size
2100-0095	T15

Helical COOLANT THRU INDEXIABLE FACE MILLS
- Accepts APKT (16mm) Carbide Inserts

- This 90° major cutting edge angle square shoulder milling cutter with helical have longer tool life and less cutting resistance.
- Insert(16mm) is NOT included.







Limited Supply!

INSERTS NOT INCLUDED

Item#	Cutting Dia. D	Arbor Hole d	Height H	No. of Flutes	No. of Inserts	Insert Used	Screw	Torx Wrench
2066-7000	2"	1"	2-3/8"	3	6	APKT1604	M4x10	T15
2066-8000	3"	1-1/4"	2-3/8"	5	15	APKT1604	M4x10	T15

INSERT - Optional

Item #	Size
6010-4003	APKT1604

SCREW - Replacement

Item #	Size
2100-0074	M4x10

TORX WRENCH - Replacement

Item #	Size
2100-0095	T15

See pages 193 for Inserts & 232 for Arbors.

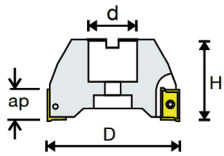
90° SQUARE SHOULDER INDEXABLE FACE MILLS - Accepts APKT Carbide Inserts

- This 90° major cutting edge angle square shoulder milling cutter is fitted with strong 11° positive rectangular inserts allowing high depth of cut and feed per tooth.
- Inserts not included

INSERTS NOT INCLUDED



Item#	Cutting Dia. D	Arbor Hole d	Height H	No. of Inserts	Insert Used	Screw	Torx Wrench
2063-2000	2"	3/4"	1.75"	5	APKT1003	M2.5x6	T8
2063-2500	2-1/2"	3/4"	2.00"	6	APKT1003	M2.5x6	T8
2063-3000	3"	1"	2.00"	7	APKT1003	M2.5x6	T8
2063-4000	4"	1-1/2"	2.00"	8	APKT1003	M2.5x6	T8
2066-2000	2"	3/4"	1.75"	5	APKT1604	M4x10	T15
2066-2500	2-1/2"	3/4"	2.00"	6	APKT1604	M4x10	T15
2066-3000	3"	1"	2.00	7	APKT1604	M4x10	T15
2066-4000	4"	1-1/2"	2.00	8	APKT1604	M4x10	T15
2066-5000	5"	1-1/2"	2.00	8	APKT1604	M4x10	T15



INSERTS - Optional

Item #	Size
6010-4203	APKT1003
6010-4003	APKT1604

SCREWS - Replacement

Item #	Size
2100-0070	M2.5x6
2100-0074	M4x10

TORX WRENCHES - Replacement

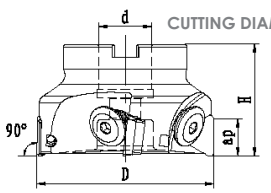
Item #	Size
2100-0092	T8
2100-0095	T15

90° SQUARE SHOULDER INDEXABLE FACE MILLS - Clamp Style, Accepts TPG Carbide Inserts

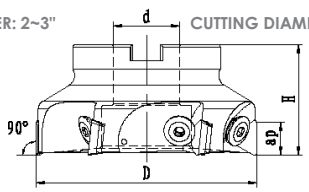
- Setting angle 90°.
- Nickel coating.
- 11° positive triangular inserts allowing high depth of cut and feed per tooth.
- Radial rake angle +1°
- Axial rake +7° .
- The clamping system (screw) makes quick and easy insert mounting (indexing) and removal.

SQUARE SHOULDER

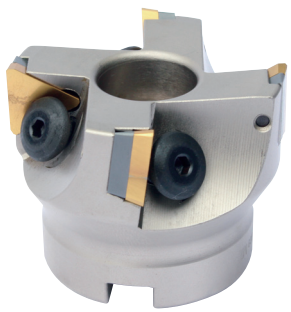
CUTTING DIAMETER: 2~3"



CUTTING DIAMETER: >3"



INSERTS NOT INCLUDED



Item#	Cutting Dia. D	Arbor Hole d	Height H	No. of Flutes	No. of Inserts	Shim	Shim Screw	Insert Screw	Hex Key Wrench
2061-3003	3"	1"	1.97"	5	TPCN32_	TP16D	M3x6.5-D5	SM815.18	S2, S4
2061-4004	4"	1-1/2"	1.97"	5	TPCN43_	TP22D	M3x6.5-D5	SM1018.22	S2, S4
2061-5005	5"	1-1/2"	2.48"	6	TPCN43_	TP22D	M3x6.5-D5	SM1018.22	S2, S5

SHIM SCREWS - Replacement

Item #	Size
2100-0089	M3x6.5-D5

SCREWS - Replacement

Item #	Size
2100-0051	SM815.18
2100-0052	SM1018.22

HEX KEY WRENCHES - Replacement

Item #	Size
2100-1087	S2
2100-1089	S4
2100-1090	S5

SHIMS - Replacement

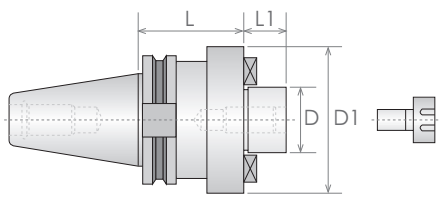
Item #	Size
2100-1100	TP16D
2100-1101	TP22D

See page 232 for Arbors.

CAT 40 "V" FLANGE SHELL END MILL HOLDERS

- CAT 40 Shell End Mill Holder.
- For CNC machines having CAT 40 taper spindles.
- Hardened and precision ground.

RETENTION KNOB THREAD: 5/8" -11





Item#	Dia. for Bore in Shell End Mill D	D1	Gage Length L	L1	Bore Thread
3900-4255	3/4"	1.5"	1.50"	0.69"	3/8"~24
3900-4257	1"	2.0"	2.00"	0.69"	1/2"~20
3900-4259*	1-1/4"	2.5"	2.19"	0.69"	5/8"~18
3901-4259*	1-1/4"	2.75"	2.21"	0.69"	5/8"~18
3901-4261*	1-1/2"	3.81"	2.21"	0.94"	3/4"~16

* Limited Supply

Additional Sizes Shown on Page 243

90° SQUARE SHOULDER INDEXABLE END MILLS - Coolant -Through
- Accepts ANGX Carbide Inserts

- ANGX double-sided insert provides 4-cutting edges, has a bigger depth of cut(ap) value and economy.
- ANGX inserts with high precision cutting edge are more agressive, have more cutting edges than APKT and are disigned to improve shoulder milling surface finish.
- Double negative rake angle of the cutter body in combination with extra thick insert achieves double positive tool angle, reduces cutting resistance and improves impact resistance.
- Coolant-thru allows the cutting edge to cool and revoves chips.
- This 90° major cutting edge angle square shoulder milling cutter is fitted with strong 11° positive rectangular inserts allowing high depth of cut and feed per tooth.
- **Insert is NOT included**

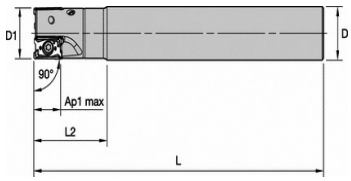


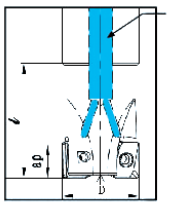
Limited Supply!

INSERTS NOT INCLUDED









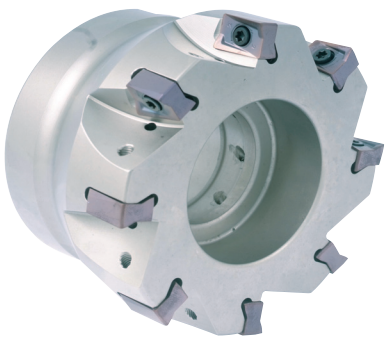
Coolant end mill shown

Item#	Cutting Diameter D1	Shank Size D	Head Length L2	OAL L	No. of Inserts	Ap1	Use Insert	Screw	Torx Wrench
5822-7750	3/4"	3/4"	1-1/4"	4"	1	0.441"	ANGX110508	M3x8	T10
5822-8000	1"	1"	1-1/2"	4.5"	2	0.441"	ANGX110508	M3x8	T10
5822-8250	1-1/4"	1-1/4"	1-21/32"	5"	3	0.441"	ANGX110508	M3x8	T10
5822-8500	1-1/2"	1-1/2"	1-21/32"	5"	4	0.441"	ANGX110508	M3x8	T10

Carbide inserts shown on page 193. Screws are shown on page 187.

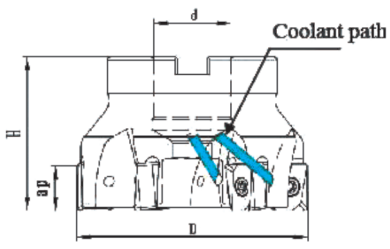
90° SQUARE SHOULDER INDEXABLE FACE MILLS - Coolant -Thru
- Accepts ANGX Carbide Inserts

- ANGX double-sided insert provides 4-cutting edges, has a bigger depth of cut(ap) value and economy.
- ANGX inserts with high precision cutting edge and are more agressive, have more cutting edges than APKT and are disigned to improve shoulder milling surface finish.
- Double negative rake angle of the cutter body in combination with extra thick insert achieves double positive tool angle, reduces cutting resistance and improves impact resistance.
- Coolant-thru allows the cutting edge to cool and removes chips.
- This 90° major cutting edge angle square shoulder milling cutter is fitted with strong 11° positive rectangular inserts allowing high depth of cut and feed per tooth.
- **Insert is NOT included.**

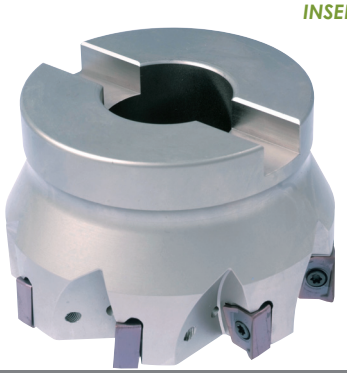




INSERTS NOT INCLUDED



Coolant face mill shown





Item#	Cutting Diameter D	Arbor Size d	Height H	ap	Teeth	Uses Insert	Screw	Torx Wrench
2069-2000*	2"	3/4"	1-3/4"	0.571"	4	ANGX150608PNR-GM	M4x11	T15
2069-3000	3"	1"	2"	0.571"	6	ANGX150608PNR-GM	M4x11	T15
2069-4000	4"	1-1/2"	2-1/2"	0.571"	8	ANGX150608PNR-GM	M4x11	T15

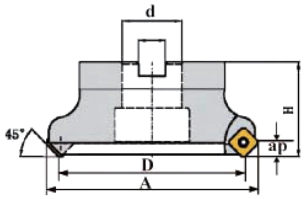
* Limited Supply

Carbide inserts shown on page 193. Screws are shown on page 187.

INDEXABLE FACE MILLS

45° INDEXABLE FACE MILLS - Accepts SQUARE Carbide Inserts

- The close pitch, super positive, 45° major cutting edge angle milling cutter reduces cutting forces and permits high cutting speeds with limited power machines.







INSERTS INCLUDED

Item#	Cutting Diameter D	Arbor Hole d	Height H	No. of Inserts	Insert Used	Screw	Torx Wrench
2065-2000	2"	3/4"	1.57"	4	SE_ _43_ AFTN	M5x10	T20
2065-3000	3"	1"	1.97"	6	SE_ _43_ AFTN	M5x10	T20
2065-4000*	4"	1-1/2"	1.97"	6	SE_ _43_ AFTN	M5x11	T20

* Limited Supply

INSERT - Optional

Item #	Size
6017-0432	SEHT-432

SCREWS - Replacement

Item #	Size
2100-0075	M5x10
2100-0079	M5x11

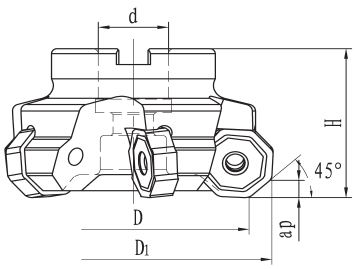
TORX WRENCH - Replacement

Item #	Size
2100-0096	T20

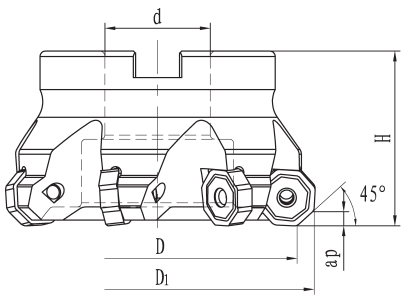
45° INDEXIABLE FACE MILLS - Accepts OCTAGON Carbide Inserts

- Octagonal double side insert with 16 cutting edges is the most economical insert on the market for face machining application.
- Negative radial rake angle and axial rake angle structure combined with thick ONHU insert body improves cutter overall resistance to impact and toughness.
- Insert is NOT included.

2068-2500
2068-3000 Shown



2068-4000
2068-4001 Shown
2068-5000





INSERTS NOT INCLUDED

Item#	Cutting Dia. D	Arbor Hole d	Height H	No. of Inserts	Use Insert	Screw	Torx Wrench
2068-2500	2-1/2"	3/4"	1-3/4"	5	ONHU08	M5x14	T20
2068-3000	3"	1"	2"	6	ONHU08	M5x14	T20
2068-4000*	4"	1-1/4"	2-1/2"	7	ONHU08	M5x14	T20
2068-4001*	4"	1-1/2"	2-1/2"	7	ONHU08	M5x14	T20
2068-5000*	5"	1-1/2"	2-1/2"	8	ONHU08	M5x14	T20

* Limited Supply

INSERT - Optional

Item #	Size
6063-0008	ONHU08

SCREW - Replacement

Item #	Size
2100-0077	M5x14

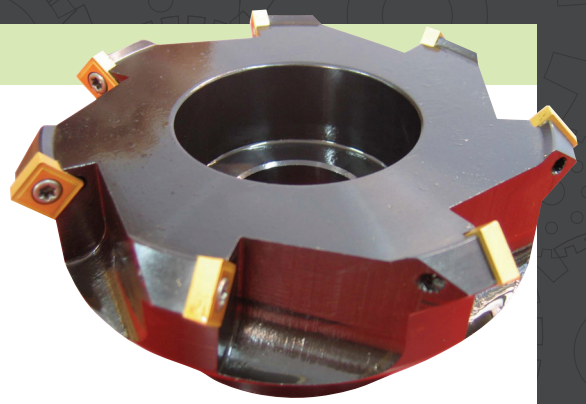
TORX WRENCH - Replacement

Item #	Size
2100-0096	T20

45° INDEXABLE FACE MILLS - Accepts SCMT Carbide Inserts

- This positive cutter, 45° major cutting edge angle, is fitted with strong 7° positive square inserts.

INSERTS NOT INCLUDED



Item#	Cutting Dia.	Arbor Hole	Height	No. of Inserts	Use Insert	Screw	Torx Wrench
2062-2000	2"	3/4"	1.57"	4	SC_ _432	M5x10	T20
2062-3000*	3"	1"	1.97"	6	SC_ _432	M5x10	T20
2062-3500	3-1/2"	1"	1.97"	6	SC_ _432	M5x10	T20
2062-4000	4"	1-1/2"	1.97"	6	SC_ _432	M5x10	T20

* Limited Supply

INSERT - Optional

Item #	Size
6056-0432	SCMT432

SCREW - Replacement

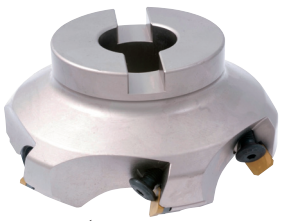
Item #	Size
2100-0075	M5x10

TORX WRENCH - Replacement

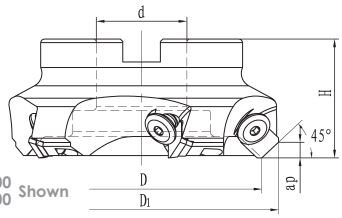
Item #	Size
2100-0096	T20

45° INDEXIABLE FACE MILLS - Accepts SE Carbide Insert

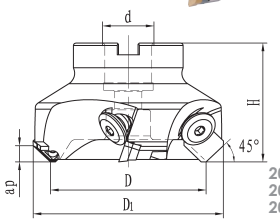
- 45° lead angle allows an increase of feed rate by 50% over 90 degree face mill and also allows this face mill to used on smaller horse power mills. It accepts industry standard SEAN / SEKN / SEKR 42 insert which has a positive 20° clearance angle.
- The insert pockets are designed to be 19° positive inclined to minimize vibration and allowing fast cutting and lowering cutting noise.
- Insert is NOT included.







2067-4000
2067-5000 Shown



2067-2000
2067-2500 Shown
2067-3000

INSERTS NOT INCLUDED

Item#	Cutting Dia. D	Arbor Hole d	Height H	No. of Inserts	Insert Used	Insert Screw	Shim	Shim Screw	Insert Hex Key	Shim Torx Wrench
2067-2000	2"	3/4"	1-57/64"	3	SE_ _42AFTN	SM815.18L	SE1203X	I86M4x7	S4	T15
2067-3000	3"	1"	1-31/32"	5	SE_ _42AFTN	SM815.18L	SE1203X	I86M4x7	S4	T15
2067-5000*	5"	1-1/2"	2-31/64"	6	SE_ _42AFTN	SM815.18L	SE1203X	I86M4x9	S4	T15

* Limited Supply

INSERTS - Optional

Item #	Size
6016-1123	SEET/DM42
6016-0123	SEET/DR43

SHIM SCREWS - Replacement

Item #	Size
2100-0069	I86M4x7
2100-0071	I86M4x9

TORX WRENCH - Replacement

Item #	Size
2100-0095	T15

INSERT SCREW - Replacement

Item #	Size
2100-0051	SM815.18L

SHIM- Replacement

Item #	Size
2100-4200	SE1203X

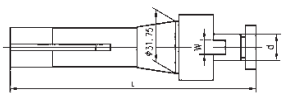
INSERT HEX KEY - Replacement

Item #	Size
2100-1089	S4

R8 SHELL END MILL HOLDERS

for ***Bridgeport***® type mills

- Hardened and ground.



INDIVIDUALS

Item#	d	W (mm)	L (mm)	Dia. Range of Std. End Mill
3900-1711	1/2"	6.35	150	1-1/4 to 1-1/2"
3900-1712	3/4"	7.94	154	1-1/4 to 2-1/2"
3900-1713	1"	9.53	155	2-1/4 to 2-3/4"
3900-1714	1-1/4"	12.70	156	3 to 3-1/2"
3900-1715	1-1/2"	15.88	163	4 to 5"



DRAWBAR END THREAD: 7/16" -20

5 PC SET
3900-1710
1/2, 3/4, 1, 1-1/4, 1-1/2"

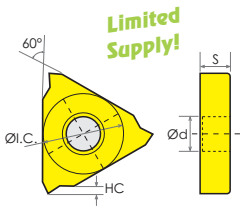
INTERNAL THREADING & GROOVING CARBIDE INSERTS - Metric Thread

Item#	Insert No.	I.C.	Screw Pitch	S	d	Grade
6006-1006	RT16.01N-1.25GM	3/8"	1.25	5/32"	0.173"	XAF799
6006-1007	RT16.01N-1.50GM	3/8"	1.50	5/32"	0.173"	XAF799
6006-1008	RT16.01N-1.75GM	3/8"	1.75	5/32"	0.173"	XAF799
6006-1009	RT16.01N-2.00GM	3/8"	2.00	5/32"	0.173"	XAF799
6006-1010	RT16.01N-2.50GM	3/8"	2.50	5/32"	0.173"	XAF799
6006-1011	RT16.01N-3.00GM	3/8"	3.00	5/32"	0.173"	XAF799

RIGHT HAND

10 PC PER PACKAGE



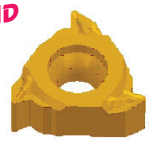


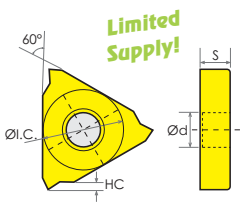
EXTERNAL THREADING & GROOVING CARBIDE INSERTS - Metric Thread

Item#	Insert No.	I.C.	Screw Pitch	S	d	Grade
6006-3006	RT16.0W-1.25GM	3/8"	1.25	5/32"	0.173"	XAF799
6006-3007	RT16.0W-1.50GM	3/8"	1.50	5/32"	0.173"	XAF799
6006-3008	RT16.0W-1.75GM	3/8"	1.75	5/32"	0.173"	XAF799
6006-3009	RT16.0W-2.00GM	3/8"	2.00	5/32"	0.173"	XAF799
6006-3010	RT16.0W-2.50GM	3/8"	2.50	5/32"	0.173"	XAF799
6006-3011	RT16.0W-3.00GM	3/8"	3.00	5/32"	0.173"	XAF799

RIGHT HAND

10 PC PER PACKAGE





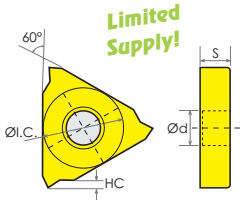
INTERNAL THREADING & GROOVING CARBIDE INSERTS - Inch Thread

Item#	Insert No.	I.C.	Screw Pitch	S	d	Grade
6006-4010	RT16.01N-10UN	3/8"	10TPI	5/32"	0.173"	XAF799
6006-4012	RT16.01N-12UN	3/8"	12 TPI	5/32"	0.173"	XAF799
6006-4014	RT16.01N-14UN	3/8"	14 TPI	5/32"	0.173"	XAF799
6006-4016	RT16.01N-16UN	3/8"	16 TPI	5/32"	0.173"	XAF799
6006-4018	RT16.01N-18UN	3/8"	18 TPI	5/32"	0.173"	XAF799
6006-4020	RT16.01N-20UN	3/8"	20 TPI	5/32"	0.173"	XAF799

RIGHT HAND

10 PC PER PACKAGE





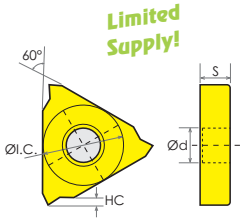
EXTERNAL THREADING & GROOVING CARBIDE INSERTS - Inch Thread

Item#	Insert No.	I.C.	Screw Pitch	S	d	Grade
6006-4108	RT16.01N-8UN	3/8"	8 TPI	5/32"	0.173"	XAF799
6006-4110	RT16.01N-10UN	3/8"	10TPI	5/32"	0.173"	XAF799
6006-4112	RT16.01N-12UN	3/8"	12 TPI	5/32"	0.173"	XAF799
6006-4114	RT16.01N-14UN	3/8"	14 TPI	5/32"	0.173"	XAF799
6006-4116	RT16.01N-16UN	3/8"	16 TPI	5/32"	0.173"	XAF799
6006-4118	RT16.01N-18UN	3/8"	18 TPI	5/32"	0.173"	XAF799
6006-4120	RT16.01N-20UN	3/8"	20 TPI	5/32"	0.173"	XAF799

RIGHT HAND

10 PC PER PACKAGE



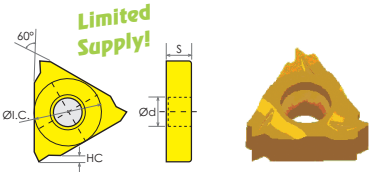


INTERNAL (NPT) THREADING CARBIDE INSERTS - Pipe Thread

Item#	Insert No.	I.C.	Screw Pitch	S	d	Grade
6006-6008	RT16.001N-8NPT	.375"	8 TPI	.156"	0.173"	XAF799
6006-6011	RT16.001N-11.5NPT	.375"	11.5 TPI	.156"	0.173"	XAF799
6006-6014	RT16.001N-14NPT	.375"	14 TPI	.156"	0.173"	XAF799
6006-6018	RT16.001N-18NPT	.375"	18 TPI	.156"	0.173"	XAF799
6006-6027	RT16.001N-27NPT	.375"	27 TPI	.156"	0.173"	XAF799

RIGHT HAND

10 PC PER PACKAGE

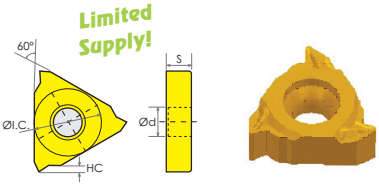


EXTERNAL (NPT) THREAD CARBIDE INSERTS - Pipe Thread

Item#	Insert No.	I.C.	Screw Pitch	S	d	Grade
6006-6108	RT16.001W-8NPT	.375"	8 TPI	.156"	0.173"	XAF799
6006-6111	RT16.001W-11.5NPT	.375"	11.5 TPI	.156"	0.173"	XAF799
6006-6114	RT16.001W-14NPT	.375"	14 TPI	.156"	0.173"	XAF799
6006-6118	RT16.001W-18NPT	.375"	18 TPI	.156"	0.173"	XAF799
6006-6127	RT16.001W-27NPT	.375"	27 TPI	.156"	0.173"	XAF799

RIGHT HAND

10 PC PER PACKAGE

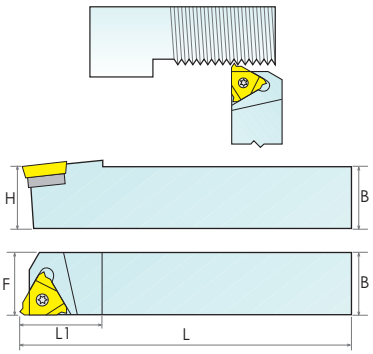


See page 191 For grade information

INDEXABLE EXTERNAL THREADING TOOL HOLDERS

- Indexable insert design lowers tooling costs by replacing only the insert.
- Rigid steel shank provides stable, accurate thread cutting.
- Ideal for external threading on lathes and CNC turning centers.





RH Item#	Style	Shank BXB	(Inch) L	Insert I.C.	Insert	Insert Screw	Shim	Shim Screw	Wrench
2301-0375*	SER0375D16	3/8 x 3/8	2-1/2	3/8	16ER..	M3.5x12	LT16R-3.0	SDN535	T15+S3.5
2301-0500	SER0500F16	1/2 x 1/2	3-1/4	3/8	16ER..	M3.5x12	LT16R-3.0	SDN535	T15+S3.5
2301-0750	SER0750K16	3/4 x 3/4	5	3/8	16ER..	M3.5x12	LT16R-3.0	SDN535	T15+S3.5
2301-1000	SER1000M16	1 x 1	6	3/8	16ER..	M3.5x12	LT16R-3.0	SDN535	T15+S3.5

* Limited Supply

See page 187 & 188 for spare parts

INDEXABLE EXTERNAL THREADING TOOL HOLDER KITS

- Right hand external threads cut.
- AG60 inserts range 0.5~3.00mm/8~48 TPI
- A60 inserts range 0.5~1.5mm/16~48 TPI
- Complete with aluminium case.

Kit includes:
1-Tool Holder
10-TiN Coated Carbide Insert
1-Torx Wrench
Fitted Case



Item#	Style	Shank	(Inch) OAL	Insert I.C.	Insert	Insert Screw	Wrench
2301-1375*	SER0312D08	5/16	2.5	.197"	08ERA60	M2.5x6	T8
2301-1500*	SER0375E11	3/8	3	1/4"	11ERA60	M2.5x7	T8
2301-1625	SER0500H11	1/2	4	1/4"	11ERA60	M2.5x7	T8
2301-1750	SER0625H16	5/8	4	3/8"	16ERAG60	M3.5x12	T15
2301-2000	SER0750K16	3/4	5	3/8"	16ERAG60	M3.5x12	T15

* Limited Supply

INDEXABLE INTERNAL & EXTERNAL THREADING TOOL HOLDER KITS

Kit includes:
1-Internal Tool Holder
1-External Tool Holder
3-IR (Internal) TiN Coated Carbide Insert
4-ER (External) TiN Coated Carbide Insert
1-Torx Wrench
Fitted Case





RH Item#	Style (INT & EXT)	Shank	Insert	Insert Screw	Shim Screw	Shim	Wrench
2301-2250*	SIR0250H06 & SER0250D06	1/4	06IR/06ER..	M2x5	-	-	T6
2301-2312*	SIR0312H08 & SER0312D08	5/16	06IR/08ER..	M2.5X6	-	-	T8
2301-2375*	SIR0375H11 & SER0375E11	3/8	11IR/11ER..	M2.5x6	-	-	T8
2301-2500*	SIR0500K11 & SER0500F11	1/2	11IR/11ER..	M2.5x6	-	-	T8
2301-2625	SIR0625M16 & SER0625H16	5/8	16IR/16ER..	M3.5x8/M3.5x12	SDN535(EXT)	LT16R-3.0(EXT)	T15+S3.5
2301-2750	SIR0750P16 & SER0750K16	3/4	16IR/16ER..	M3.5x8/M3.5x12	SDN535 (EXT)	LT16R-3.0(EXT)	T15+S3.5

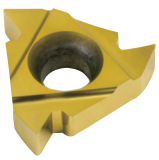
* Limited Supply

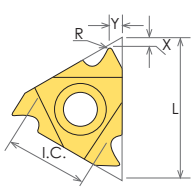
See page 187 & 188 for spare parts

THREADING CARBIDE INSERTS/PARTIAL PROFILE 60°

- 60° V partial profile threading insert.
- Right hand cut.

TiN COATED





10 PC PER PACKAGE

	Item#	Insert	I.C.	Pitch Range mm	Pitch Range TPI	L (in)	R (in)	X (in)	Y (in)
INTERNAL	**6061-0156***	06IRA60	.156"	0.5~1.25	48~20	.236	.002	.020	.024
	6061-0187*	08IRA60	.188"	0.5~1.5	48~16	.315	.002	.024	.028
	6007-0008	11IRA60	1/4"	0.5~1.5	48~16	.435	.003	.031	.035
	6007-0015	16IRAG60	3/8"	0.5~3.0	48~8	.630	.003	.047	.035
	6007-0018	22IRN60	1/2"	3.5~5.0	5~7	.866	.010	.067	.098
EXTERNAL	**6007-0002***	06ERA60	.156"	0.5~1.25	48~20	.236	.002	.020	.024
	6007-0001*	08ERA60	.197"	0.5~1.5	48~16	.315	.002	.024	.028
	6007-0004	11ERA60	1/4"	0.5~1.5	48~16	.435	.003	.031	.035
	6007-0012	16ERAG60	3/8"	0.5~3.0	48~8	.630	.003	.047	.035

* Limited Supply

INDEXABLE THREADING TOOLS

MINI INDEXABLE THREADING TOOL HOLDER KIT

- Right hand.
- Super for running at low speeds
- Threads all the way down in a blind hole
- 3 cutting edge on insert provides 3x tool life
- 06IR A60 insert range 48-20 TPI/ 0.5~1.25mm.
- 08IR A60 insert range 48-16 TPI/ 0.5~1.50mm.

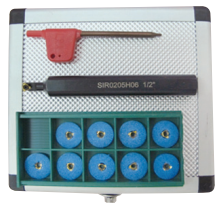
Set Includes:

- 1-mini tool holder
- 10 -60° partial profile internal insert, TiN coated
- 1 - Torx wrench
- 1 -Aluminium fitted case



Limited Supply!

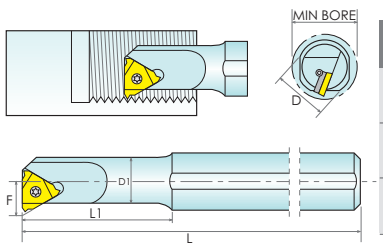




Item#	Shank Dia. D	D1	(Inch) L	L1	Min. Bore	Use Insert	Screw	Wrench
2305-0312	5/16	0.205	4	0.500	0.240	06IRA60	M2x3.5mm	T6
2305-0375	3/8	0.265	5	0.710	0.310	08IRA60	M2.5x5mm	T8
2305-0500	1/2	0.205	4	0.500	0.240	06IRA60	M2x3.5mm	T6
2305-0626	5/8	0.265	5	0.710	0.307	08IRA60	M2.5x5mm	T8

INDEXABLE INTERNAL THREADING TOOL HOLDERS





RH Item#	Style	Shank D	(Inch) L	Min. Bore	F	Insert I.C.	Insert	Insert Screw	Wrench	Anvil Screw	Shim
2302-0375	SIR0375H11	3/8	4	.47	0.29	1/4	11IR..	M2.5x6	T8	----	----
2302-0500	SIR0500K16	1/2	5	.64	0.39	3/8	16IR..	M3.5x8	T15	----	----
2302-0625	SIR0625P16	5/8	7	.75	0.45	3/8	16IR..	M3.5x8	T15	----	----
2302-0750	SIR0750P16	3/4	7	1.00	0.51	3/8	16IR..	M3.5x8	T15	----	----
2302-0751	SIR0750P22	3/4	7	1.00	0.51	1/2	22IR..	M4x12-Ø6.8	T15	----	----
2302-1000	SIR1000R16	1	8	1.20	0.65	3/8	16IR..	M3.5x12	T15+S3.5	SDN535	LT16L-3.0

INDEXABLE INTERNAL THREADING TOOL HOLDER KITS

- Right hand internal threads cut.
- AG60 inserts range 0.5~3.00mm/8~48 TPI
- A60 inserts range 0.5~1.5mm/16~48 TPI
- Complete with aluminium case.

Kit includes:

1-Tool Holder, 10-TiN Coated Carbide Insert, 1-Torx Wrench and fitted case.



Item#	Style	Shank	OAL	Insert I.C.	Insert	Insert Screw	Wrench
2302-1250	SIR0375H11	3/8	4	1/4	11IRA60	M2.5x6	T8
2302-1500	SIR0500K11	1/2	5	1/4	11IRA60	M2.5x6	T8
2302-1625	SIR0625M16	5/8	6	3/8	16IRAG60	M3.5x8	T15
2302-1787	SIR0750P16	3/4	7	3/8	16IRAG60	M3.5x8	T15

5 PC INDEXABLE INTERNAL THREADING TOOL HOLDER SET

- Suitable for varied pitch internal threading.
- Supplied with fitted aluminium case.
- Carbide inserts are included for semi-finishing/roughing.

Specifications

Size in Set	Insert	OAL	Screw	Wrench
5/16	08IR A60	4"	M2.5x5mm	T6
3/8	11IRA A60	5"	M2.5x5mm	T6
1/2	11IRA A60	6"	M2.5x5mm	T6
5/8	16IR AG60	7"	M3.5x10mm	T15+S3.5
3/4	16IR AG60	10"	M3.5x10mm	T15+S3.5

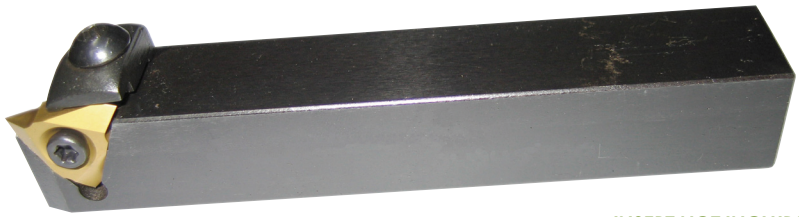
5 PC SET
2305-1005



MTVO STYLE EXTERNAL THREADING & GROOVING HOLDERS

- For OD threading and grooving
- Neutral rake.
- Right hand.
- Torx & Allen wrench included.

ALSO USES INSERTS: TNMA-NV, TNMC-NC, TPMC-NV



INSERT NOT INCLUDED

RH Item#	Holder Style	Shank	(Inch) OAL	Insert I.C.	Use Insert	Insert Screw	Clamp	Spring	Locking Screw	Torx Wr.	Allen Wr.
2304-1500	MTVOR08-3B	1/2x1/2	4-1/2	3/8	TNMA-32NV	M3.5x8	MTH0820	MTH0610	GB/T70.2 M6x20	T15	S4
2304-1750	MTVOR12-3B	3/4x3/4	4-1/2	3/8	TNMA-32NV	M3.5x8	MTH0820	MTH0610	GB/T70.2 M6x20	T15	S4
2304-1751	MTVOR12-4B	3/4x3/4	4-1/2	1/2	TNMA-43NV	M5X12	MTH0820	MTH0610	DLS5 M6x26	T20	S4
2304-2000	MTVOR16-3D	1x1	6	3/8	TNMA-32NV	M3.5X8	MTH0820	MTH0610	DLS5 M6x26	T15	S4
2304-2001	MTVOR16-4D	1x1	6	1/2	TNMA-43NV	M5X12	MTH0820	MTH0610	DLS5 M6x26	T20	S4






Repacement Parts

Item#	Insert Screw	Item#	Locking Clamp	Item#	Locking Screw	Item#	Spring
2100-0073	M3.5x8	**2100-0015**	MTH0820	**2100-0026**	GB/T70.2 M6X20	**2100-0100**	MTH0610
2100-0076	M5X12			**2100-0027**	DLS5 M6X26		

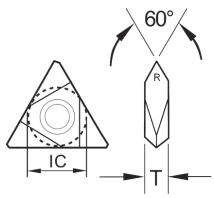
TNMA THREADING CARBIDE INSERTS
0-Degree Rake, Precision Ground

- 60° "V"-threading.
- 0° Rake angle.
- Cylindrical thru hole.



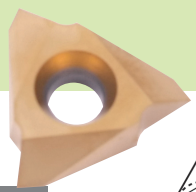
Item#	Insert No.	I.C.	Pitch	Radiu R	Thread Degree	Thick T	Hole d	Grade C6
6043-0375	TNMA-32NV	3/8	8 TPI Max.	.003~.005	60	.125"	.150"	TiN
6043-0500	TNMA-43NV	1/2	6 TPI Max.	.005~.008	60	.187"	.202"	TiN
6043-0005	TNMA-43NV	1/2	6 TPI Max.	.005~.008	60	.187"	.202"	Uncoated

10 PC PER PACKAGE



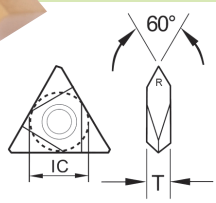
TPMC THREADING INSERTS
10-Degree Rake, Precision Ground

- 60° "V"-threading.
- 10° Rake angle.
- Double countersink thru hole.
- TiN coated.



Item#	Insert No.	I.C.	Pitch	Radiu R	Thread Degree	Groove Width
6043-1375	TPMC-32NV	3/8	8 TPI Max.	.003~.005	60	.125"
6043-1500	TPMC-43NV	1/2	6 TPI Max.	.005~.008	60	.187"

10 PC PER PACKAGE



TNMC GROOVING CARBIDE INSERTS

- Right hand on two sides.
- Neutral rake angle.
- Double countersink thu hole.
- TiN coated.

Limited Supply!

TiN Coated



10 PC PER PACKAGE

Item#	Insert No.	I.C. (In)	Pitch	Groove Width (In)	Groove Depth (In)
6043-0632	TNMC-32NGR031	0.375	8 TPI Max.	.031	.075
6043-0633	TNMC-32NGR062	0.375	8 TPI Max.	.062	.150
6043-0634	TNMC-32NGR094	0.375	8 TPI Max.	.094	.150
6043-0635	TNMC-32NGR125	0.375	8 TPI Max.	.125	.150
6043-0643	TNMC-43NGR062	0.500	6 TPI Max.	.062	.125
6043-0644	TNMC-43NGR094	0.500	6 TPI Max.	.094	.150
6043-0645	TNMC-43NGR125	0.500	6 TPI Max.	.125	.210
6043-0646	TNMC-43NGR156	0.500	6 TPI Max.	.156	.210
6043-0654	TNMC-54NGR250	0.625	4 TPI Max.	.250	.210

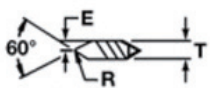
TOP NOTCH THREADING & GROOVING CARBIDE INSERTS

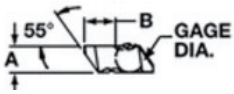
- Completely interchangeable with the "Kennametal TopNotch" and the Teledyne Firth Notch systems.
- 60° Negitive rake, netural.
- NT-600 parting profile general purpose threading inserts.
- NG-Grooving & Turning inserts.
- Grade: C5/TIC-65 coated, which is same as KENNAMETAL KC810, KC850, KC950, KC730
- Trademark of Kennametal.

SPECIFICATIONS

Insert #	External TPI	Internal TPI
T/NT-2R/2L	8-36	7-20
T/NT-3R/3L	6-20	5-12
T/NT-4R/4L	4-20	4-12







THREADING INSERTS *Grade C5/TIC 65*

Item#	Insert #	R	B	(Inch) T	E	A	Gage Dia.
6062-5001	T/NT-2R	.003	.2661	.150	.075	.219	.1875
6062-5002	T/NT-2L	.005	.2661	.150	.075	.219	.1875
6062-5003	T/NT-3R	.005	.3999	.195	.098	.344	.3750
6062-5004	T/NT-3L	.008	.3999	.195	.098	.344	.3750
6062-5005	T/NT-4R	.005	.6293	.255	.128	.453	.3750

CLAMP

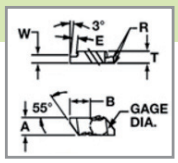
Item #	Style
2100-0011	TNSB-2B
2100-0010	TNSB-3B

GROOVIING INSERTS

Grade C5/TIC 65

R=Right Hand
L=Left Hand





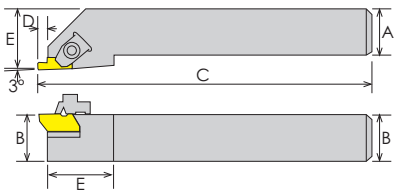
Item#	Insert #	R	Groove Width W	B	(Inch) T	Depth of Cut E	A	Gage Dia.
6062-2030	T/NG-2031R	.002	.031	.2700	.150	.050	.219	.1875
6062-2031	T/NG-2031L	.005	.031	.2700	.150	.050	.219	.1875
6062-2046	T/NG-2047R	.002	.047	.2700	.150	.050	.219	.1875
6062-2047	T/NG-2047L	.005	.047	.2700	.150	.050	.219	.1875
6062-2061	T/NG-2062R	.005	.062	.2700	.150	.050	.219	.1875
6062-2062*	T/NG-2062L	.010	.062	.2700	.150	.050	.219	.1875
6062-2093	T/NG-2094R	.005	.094	.2700	.150	.050	.219	.1875
6062-2094	T/NG-2094L	.010	.094	.2700	.150	.050	.219	.1875
6062-2124*	T/NG-2125R	.005	.125	.2700	.150	.050	.219	.1875
6062-2125*	T/NG-2125L	.010	.125	.2700	.150	.050	.219	.1875
6062-3046	T/NG-3047R	.005	.047	.4050	.195	.075	.344	.3750
6062-3047*	T/NG-3047L	.010	.047	.4050	.195	.075	.344	.3750
6062-3061	T/NG-3062R	.005	.062	.4050	.195	.075	.344	.3750
6062-3077*	T/NG-3078R	.005	.078	.4050	.195	.075	.344	.3750
6062-3078*	T/NG-3078L	.010	.078	.4050	.195	.075	.344	.3750
6062-3087*	T/NG-3088R	.005	.088	.4050	.195	.075	.344	.3750
6062-3088*	T/NG-3088L	.010	.088	.4050	.195	.075	.344	.3750
6062-3094*	T/NG-3094L	.010	.094	.4050	.195	.075	.344	.3750
6062-3124	T/NG-3125R	.005	.125	.4050	.195	.075	.344	.3750
6062-3125	T/NG-3125L	.010	.125	.4050	.195	.075	.344	.3750
6062-3155	T/NG-3156R	.005	.156	.4050	.195	.075	.344	.3750
6062-3156	T/NG-3156L	.010	.156	.4050	.195	.075	.344	.3750
6062-3188	T/NG-3189R	.005	.189	.4050	.195	.075	.344	.3750
6062-3189*	T/NG-3189L	.010	.189	.4050	.195	.075	.344	.3750
6062-4124*	T/NG-4125R	.005	.125	.6360	.255	.250	.453	.3750
6062-4125*	T/NG-4125L	.010	.125	.6360	.255	.250	.453	.3750
6062-4189*	T/NG-4189L	.025	.189	.6360	.255	.250	.453	.3750
6062-4249*	T/NG-4250R	.020	.250	.6360	.255	.250	.453	.3750
6062-4250*	T/NG-4250L	.025	.250	.6360	.255	.250	.453	.3750

* Limited Supply

TOP NOTCH STYLE EXTERNAL THREADING & GROOVING TOOLHOLDERS

- Right hand.
- Excellent all-purpose system for threading and grooving.
- Very strong insert design and wide insert selection and range.
- Clamping system draws the insert consistently back into the pocket for superior repeatability.
- Fully interchangable with other simliar "notch" type tools and inserts.
- Uses T/NT threading and T/NG grooving inserts.

Right Hand Holder Use Right Hand Inserts





INSERT NOT INCLUDED

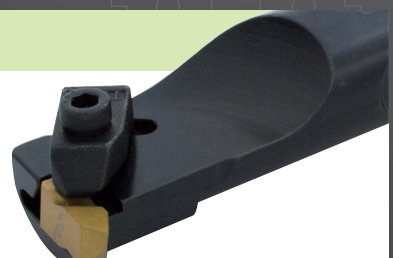
Item#	Holder #	A	B	C	(Inch) D	F	E	Clamp	Screw	Gage Insert Size	Shim	Shim Screw	Keys
2301-3108	TNSR08-2V	.50	.500	3.5	.138	.75	.75	TNSB-2B	M4x14	2	---	---	S2.5
2301-3112	TNSR12-2B	.75	.750	4.5	.138	1.00	.75	TNSB-2B	M4x14	2	TNSN-2Z	M2x4	S2.5 & T6
2301-3113	TNSR12-3B	.75	.750	4.5	.210	1.00	1.25	TNSB-3B	M5x18	3	TNSN-3A-3	M2.5x8	S3 & T8
2301-3116	TNSR16-3D	1	1.000	6.0	.210	1.25	1.25	TNSB-3B	M5x18	3	TNSN-3A	M2.5x8	S3 & T8
2301-3117	TNSR16-4D	1	1.000	6.0	.294	1.25	1.38	TNSB-3B	M5x18	4	TNSN-3A	M2.5x8	S3 & T8

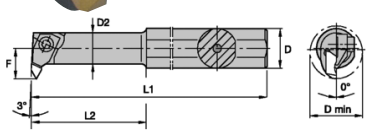
TOP NOTCH STYLE INTERNAL THREADING & GROOVING TOOLHOLDERS

- Right hand.
- Excellent all-purpose system for threading and grooving.
- Very strong insert design and wide insert selection and range.
- Clamping system draws the insert consistently back into the pocket for superior repeatability.
- Fully interchangable with other simliar "notch" type tools and inserts.
- Insert not included.
- Uses T/NT threading and T/NG grooving inserts.

Right Hand Holder Use Left Hand Inserts

INSERT NOT INCLUDED



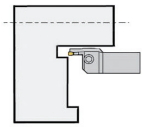


Item#	Holder #	D min.	L1	(Inch) D	F	(mm) D2	(mm) L2	CLAMP	Screw	Gage Insert Size
2301-3010	S10S-TNER2	1.000	10	0.625	.500	14.88	34	TNSN02B	M4X12	2
2301-3016	S16T-TNER3	1.375	12	1.000	.688	23.4	47.8	TNSN-3B	M5X16	3
2301-3020	S20U-TNER3	1.750	14	1.250	.875	29.75	50.6	TNSN-3B	M5X18	3
2301-3024*	S24U-TNER3	2.000	14	1.500	1.000	35.1	50.6	TNSN-3B	M5X18	3

* Limited Supply

MGEHR EXTERNAL PARTING GROOVING & TURNING TOOLHOLDERS

- Right hand.
- Tool holder design provides precision clamping & insert indexing accuracy.
- Ideal for external grooving, turning, part-off, reliefing & profile machining.



INSERT NOT INCLUDED

Inserts Shown on Next Page



Item#	Toolholder Designation	Insert Width	Max. Cutting Depth	Shank Height	Shank Width	OAL	Use Insert	Screw	Hex Key
2207-0375	MGEHR06-2	0.079"	1/2"	3/8"	3/8"	3"	MGMN200	GB70-85-M4X12	S3
2207-0500	MGEHR08-2A	0.079"	1/2"	1/2"	1/2"	4"	MGMN200	GB70-85-M4X12	S3
2207-0625	MGEHR10-2B	0.079"	1/2"	5/8"	5/8"	4.5"	MGMN200	GB70-85-M5X14	S4
2207-0750	MGEHR12-2C	0.079"	1/2"	3/4"	3/4"	5"	MGMN200	GB70-85-M5X14	S4
2207-1000	MGEHR16-2D	0.079"	1/2"	1"	1"	6"	MGMN200	GB70-85-M6X20	S5

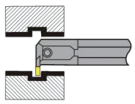
MGIV INTERNAL PARTING GROOVING & TURNING TOOLHOLDERS

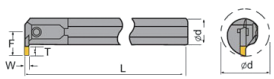
- Right hand.
- Tool holder design provides precision clamping & insert indexing accuracy.
- Ideal for internal grooving, turning & profile machining.

INSERT NOT INCLUDED



Inserts Shown on Next Page





Item#	Toolholder Designation	Insert Width W	Max. Cutting Depth T	Shank Dia. d	F	OAL L	Use Insert	Screw	Hex Key
2208-0625	S10K-MGIVR/L2	0.079"	0.197"	5/8"	1/2"	5"	MGMN200	GB70-85-M4X12	S3
2208-0750	S12M-MGIVR/L2	0.079"	0.197"	3/4"	5/8"	6"	MGMN200	GB70-85-M5X14	S4

EXTERNAL & INTERNAL GROOVING TOOL SETS

- Right hand.
- Suitable for varied external & internal grooving.
- Carbide inserts are included for semi-finishing/roughing machining.

Set Includes:

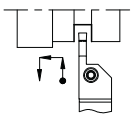
1 - External tool holder (MGEHR)
1 - Internal tool holder (S-MGIVR)
10 - TiN coated inserts
2 - Hex key
1 -Aluminium fitted case

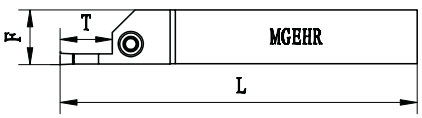


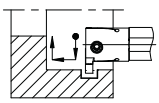
INSERTS INCLUDED

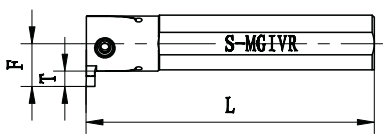
Inserts Shown on Next Page











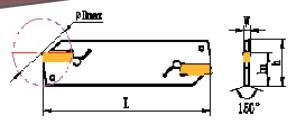
Item#	Shank Size	Holder Style	F	T	L	Screw	Hex Key	Insert Used
2208-0003	**5/8"**	MGEHR10-2B	0.64"	0.57"	4"	GB70-85-M4X10	S3	MGMN200
		S10K-MGIVR2	0.488"	0.2"	5"			
2208-0006	**3/4"**	MGEHR12-3C	0.803"	0.71"	5"	GB70-85-M4X12	S3	MGMN300
		S12M-MGIVR-3	0.614"	0.236"	6"			
2208-0009	**1"**	MGEHR16-4D	1"	0.71"	6"	GB70-85-M5X16	S4	MGMN400
		S16R-MGIVR4	0.744"	0.236"	8"			

MGMN INDEXABLE CUT-OFF AND GROOVING BLADES

- Righ hand cutting.
- Double end.
- Use MGMN Inserts.

Limited Supply!





INSERT IS NOT INCLUDED

Item#	Width W	Dmax.	(Inch) h	h1	OAL L	Use Insert	Key
2209-0020	0.079	1.10	1.06	0.79	4.33	MGMN200	KD4
2209-0025	0.098	1.26	1.06	0.79	4.33	MGMN250	KD4
2209-0030	0.118	1.42	1.06	0.79	4.33	MGMN300	KD4
2209-0040	0.157	1.42	1.06	0.79	4.33	MGMN400	KD4
2209-0060	0.079	1.10	1.26	0.94	5.91	MGMN200	KD5
2209-0065	0.098	1.26	1.26	0.94	5.91	MGMN250	KD5
2209-0070	0.118	1.42	1.26	0.94	5.91	MGMN300	KD5
2209-0080	0.157	1.42	1.26	0.94	5.91	MGMN400	KD5

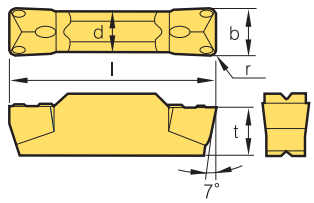
MGMN-G GROOVING CARBIDE INSERTS

MGMN-G

- Specially designed chip breaker allows narrower chips to promote better chip flow.
- Specifically designed for grooving applications.



10 PC PER PACKAGE



Item#	Insert No.	Cutting Width b	OAL L	(Inch) d	Cutting Edge Heigh t	r	Grade
6024-3021	MGMN-150-G	.059	.63	.047	.138	.006	BPS253-CVD
6024-3022	MGMN-200-G	.079	.63	.063	.138	1/128	BPS253-CVD
6024-3051	MGMN-200-G	.079	.63	.063	.138	1/128	BPG20B-PVD

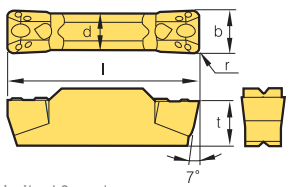
MGMN-M GROOVING CARBIDE INSERTS

MGMN-M

- Specially designed chip breaker allows as moother chip flow versus conventional flattop geometries through the use of a central chip breaker.
- Specially placed convex dots assits twith chip control in external machining, for a smoother chip flow.
- Chip breaker designed for turning , grooving & parting applications.



10 PC PER PACKAGE



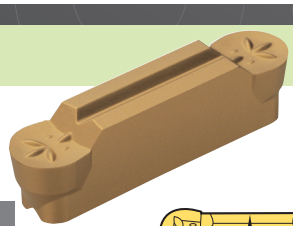
Item#	Insert No.	Cutting Width	OAL L	(Inch) d	Cutting Edge Heigh t	r	Grade
6024-3002	MGMN-250-M	.098	.73	.079	.152	1/128	BPS253-CVD
6024-3003	MGMN-300-M	.118	.83	.093	.189	1/64	BPS253-CVD
6024-3004	MGMN-400-M	.157	.83	.130	.189	1/64	BPS253-CVD
6024-3052*	MGMN-250-M	.098	.73	.079	.152	1/128	BPG20B-PVD
6024-3053	MGMN-300-M	.118	.83	.093	.189	1/64	BPG20B-PVD

* Limited Supply

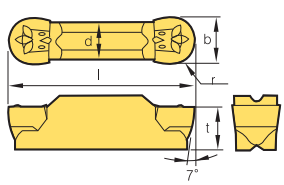
MRMN-M GROOVING CARBIDE INSERTS

MRMN-M

- Full radius geometry for applications that require profiling
- Available for relief machining



10 PC PER PACKAGE



Item#	Insert No.	Cutting Width b	OAL L	(Inch) d	Cutting Edge Heigh t	r	PVD Grade
6024-3031	MRMN-200-M	.079	.630	.059	.079	3/64	BPS253
6024-3032*	MRMN-300-M	.118	.827	.093	.118	1/16	BPS253
6024-3033	MRMN-400-M	.157	.827	.130	.157	5/64	BPS253
6024-3034*	MRMN-500-M	.197	1.024	.161	.197	3/32	BPS253
6024-3035	MRMN-600-M	.236	1.024	.197	.236	1/8	BPS253

* Limited Supply

GRADE COMPARISON

BPG253-CVD

CVD coated universal grade is suitable for steel and cast steel continuous cutting and interrupted cutting, finishing to roughing, With a wide range of application, stainless steel continuous cutting and interrupted cutting.

BPG20B-PVD

PVD coated micro-grain carbide to use for a variety of stainless steel finishing at medium to low cutting speed. Excellent edge strength and high surface quality, provide the perfect ride cutting. High thermal shock resistance. Suitable for light interrupted cuts.

RETROFIT GTN CUT-OFF AND GROOVING BLADES



- Used on Aloris and DORAIN Type Quick-Change Tool Holders
- High performance rates. No more re-grinding. Insert indexability.
- Uses GTN, GTL, GTR inserts.

INSERT IS NOT INCLUDED

See page 163 for inserts

* Limited Supply

Item#	Fits Holder	HSS Blade Reference	Blade Height	Cutting Width	Overall Length	Use Insert
3900-5971	AXA-7	P2	1/2	.087 & .093"	4-11/32	GTN/R/L 2
3900-5973	BXA-7	P3N	11/16	.087 & .093"	4-11/32	GTN/R/L 2
3900-5975	BXA-7	P3, T3	11/16	.120"	4-11/32	GTN/R/L 3
3900-5977	CXA-7	P3W	3/4	.120"	4-11/32	GTN/R/L 3
3900-5979	CA-7	P5X	7/8	.120"	5-29/32	GTN/R/L 3
3900-5981*	CA-7	P5N	7/8	.160"	5-29/32	GTN/R/L 4

MINI-SYSTEM EXTERNAL GROOVING & CUT-OFF HOLDERS

- Right hand shank external holder.
- Insert not included.
- Set Includes: 1pc- External Holder, 1pc-T10 Wrench, 1pc-Aluminum Case.
- Accepts NIKCOLE style inserts.
- For use with .019 to .125" thin inserts.
- Ideal for external grooving, threading, cut-off, turning & copying under .125" width.

RIGHT HAND HOLDER ONLY ACCEPT RIGHT HAND INSERTS

INSERTS NOT INCLUDED



2306-0375 Shown

* Limited Supply



2306-0500 Shown



2306-0625 Shown

INSERTS NOT INCLUDED

Item#	Toolholder Designation	Shank Dia (In)	OAL (In)	Use Insert	Screw	Tox Wrench
2306-0375*	THE-7-3/8-R	3/8	4.5	GIE-7-SG-	M3x8mm	T10
2306-0500	THE-7-1/2-R	1/2	4.5	GIE-7-SG-	M3x8mm	T10
2306-0625*	THE-75/8-R	5/8	5.0	GIE-7-SG-	M3x8mm	T10

TKEH EXTERNAL PARTING, GROOVING & TURNING TOOLHOLDERS

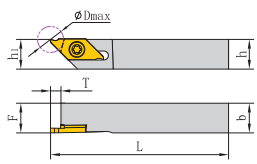
- Right hand.
- Tool holder design provides precision clamping & insert indexing accuracy.
- Ideal for external grooving, turning, part-off, reliefing & profile machining.

INSERTS NOT INCLUDED





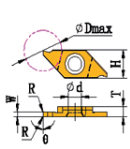
Item#	Toolholder Designation	h=h1	b	F	L	L1	T	Dmax.	Use Insert	Screw	Key
2306-2375	TKEHR06-16C	3/8	3/8	3/8	5"	0.79	0.32	0.630	TKF16R	M4x9	T15
2306-2500	TKEHR08-16D	1/2	1/2	1/2	6"	-	0.32	0.630	TKF16R	M4x9	T15
2306-2625*	TKEHR10-16D	5/8	5/8	5/8	6"	-	0.32	0.630	TKF16R	M4x9	T15

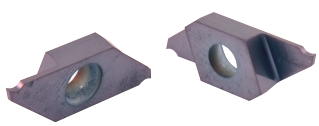


* Limited Supply

TKEH INSERTS: GradeWM125-Right Hand-AlTiN Coated

Item#	Insert	H	T	d	(mm) W	R	0	DMax
6061-1016	TKF16R100-S	9.5	4	5	1.0	0.05	0°	16
6061-1020*	TKF16R150-S	9.5	4	5	1.5	0.05	0°	16
6061-1024*	TKF16R200-S	9.5	4	5	2.0	0.05	0°	16





INDEXABLE CUT-OFF TOOLS

INDEXABLE CUT-OFF & GROOVING TOOLS KITS - For Larger Tool Posts

All Tools Are Interchangeable With ISCAR & Other Fine Brands!

ISCAR TYPE CUT-OFF TOOLS

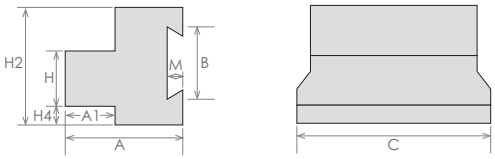
Kit includes:
Tool block, blade(s), C6 carbide inserts, insert holder, Allen wrench and case.



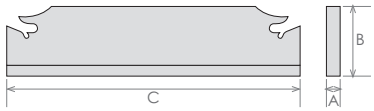
16 PC
3/4" SHANK KIT
3900-5361 Shown



Tool Block

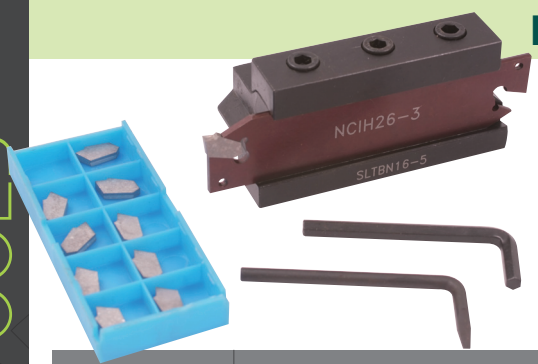


Cut-off Blade



Item#	No. of Pieces	Tool Block Dimension (Inch)	H	A1	A	B	H2	H4	M	C	Cut-off Blade Dimension (Inch)	C	B	Blade Fil	Insert
3900-5359	15	SLTBN16-5	5/8"	0.750	1.50	1.02	1.71	.52	.21	3.47 (1 pc)	NCIH26-3	4-5/16	1-1/32 (1 pc)	26-3	GTN-3 (10 pcs)
3900-5361	16	SLTBN19-5	3/4"	0.750	1.45	1.02	1.70	.39	.21	3.47 (1 pc)	NCIH26-3	4-5/16	1-1/32 (1 pc)	26-3	GTN-3 (5 pcs)
											NCIH26-4	4-5/16	1-1/32 (1 pc)	26-4	GTN-4 (5 pcs)

INDEXABLE CUT-OFF & GROOVING TOOL KITS - For Smaller Tool Posts

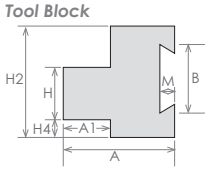


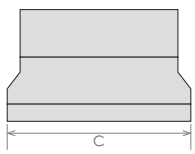
All Tools Are Interchangeable With ISCAR & Other Fine Brands !

ISCAR TYPE CUT-OFF TOOLS

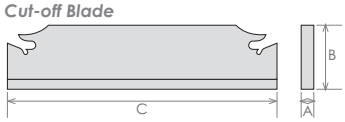
15 PC KIT INCLUDES:
- 1 - Tool Block (SLTBN)
- 1 - Cut-off Blade (NCIH)
- 10 - C-6 GTN Inserts (TiN Coated)
- 2 - Allen Wrench
- 1 - Fitted case

Tool Block





Cut-off Blade

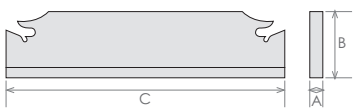


Item#	Tool Block Dimension (Inch)	H	A1	A	B	H2	H4	M	C	Cut-off Blade Dimension (Inch)	C	B	Blade Fil	Insert (10pc)
3900-5366*	SLTBN0250-2	1/4	0.472	0.984	0.787	1.161	0.498	0.118	2.2	NCIH19-2	3.38	3/4	19-2	GTN-2
3900-5367	SLTBN0312-2	5/16	0.472	0.984	0.787	1.161	0.435	0.118	2.2	NCIH19-2	3.38	3/4	19-2	GTN-2
3900-5368	SLTBN0375-2	3/8	0.472	0.984	0.787	1.161	0.373	0.118	2.2	NCIH19-2	3.38	3/4	19-2	GTN-2
3900-5369	SLTBN0500-2	1/2	0.472	0.984	0.787	1.161	0.248	0.118	2.2	NCIH19-2	3.38	3/4	19-2	GTN-2

* Limited Supply

INDEXABLE CUT-OFF BLADES

All Tools Are Interchangeable With ISCAR & Other Fine Brands !





ISCAR TYPE CUT-OFF TOOLS

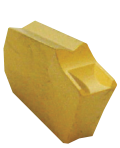
* Limited Supply

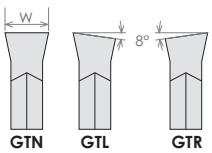
Item#	Insert Width A	Blade Style	C	B
3900-5313	.087&.094"	19-2	3.38	3/4
3900-5311	.087&.094"	26-2	4-5/16"	1-1/32
3900-5312	.120"	26-3	4-5/16"	1-1/32
3900-5314	.160"	26-4	4-5/16"	1-1/32
3900-5316*	.187& .200"	26-5	4-5/16"	1-1/32
3900-5317	.120"	32-3	5-7/8"	1-1/4
3900-5318	.160"	32-4	5-7/8"	1-1/4
3900-5319	.187&.200"	32-5	5-7/8"	1-1/4
3900-5325*	.250"	32-6	5-7/8"	1-1/4

CARBIDE CUT-OFF INSERTS

C-2 FOR CAST IRON AND GENERAL PURPOSE
C-6 FOR ALL STEEL AND GENERAL PURPOSE

TiN (C-6) FOR INCREASED PRODUCTIVITY





10 PC PER PACKAGE

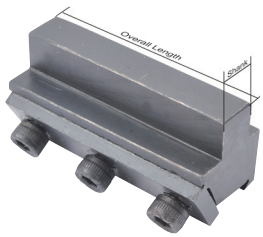
* Limited Supply

Insert Style	Insert Size (W) (In)	C-2 Item#	C-6 Item#	TiN Coated(C-6) Item#
GTN-2	.087	3900-5802	3900-5309	6024-2002
GTN-3	.120	----------	6024-1003	6024-2003
GTN-4	.160	6024-0004*	----------	6024-2004
GTN-5	.200	----------	6024-1005	6024-2005

PARTING TOOL HOLDERS - For Smaller Tool Posts

- HHIP parting tool holder fits standard 4-way tool post.
- Steel construction for durability and stability during the cutting process.
- The parting tool holder allows for efficient and controlled cutting when used to hold a cut-off blade on a lathe.







CLAMP TYPE

Item#	Shank	Length	Blade Used
3906-5371	3/8"	2-3/16"	3/32 x 1/2"
3906-5372	1/2"	2-3/16"	1/8 x 3/4"

P-TYPE CUT-OFF BLADES FOR PARTING TOOL

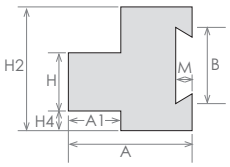
Width	Height	Length	HSS Item#	8% COBALT Item#
3/32"	1/2"	4-1/2"	**2000-6020**	**2000-7020**
1/8"	3/4"	5"	**2000-6050**	**2000-7050**

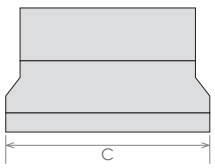
INDEXABLE CUT-OFF TOOL BLOCKS

All Tools Are Interchangeable With ISCAR & Other Fine Brands!



ISCAR TYPE CUT-OFF TOOLS





Clamping Height H (In)	Blade Height B(In)	Clamping Depth A1(In)	Block Width A (In)	Block Height H2(In)	Shoulder Depth H4(In)	Blade Pocket M (In)	Block Length C (In)	Blade Fit	Item#
0.625	0.75	0.625	1.19	1.30	.16	.12	3.00	19-2	**3900-5353**
0.625	1.02	0.750	1.50	1.71	.52	.21	3.47	26-2, 26-3, 26-4,26-5, 26-6	**3900-5354**
0.750	1.02	0.750	1.50	1.71	.39	.21	3.47	26-2, 26-3, 26-4, 26-5, 26-6	**3900-5351**
0.750	1.25	0.750	1.50	1.97	.55	.21	3.97	32-3, 32-4, 32-5, 32-6	**3900-5352**
1.000	1.25	0.750	1.50	1.97	.30	.21	4.33	32-3, 32-4, 32-5, 32-6	**3900-5355**
1.250	1.25	0.750	1.81	1.92	--	.21	4.33	32-3, 32-4, 32-5, 32-6	**3900-5356**

SGTH STYLE CUT-OFF TOOL HOLDERS
Accepts GTN Carbide Inserts



INSERT IS NOT INCLUDED

Inserts shown on page 161

* Limited Supply

Holder Style	Shank Size	Insert Width	Use Insert	Max. Work Diameter	RH Item#
9.5-2	3/8 x 3/8"	.087 & .094"	GTN-2	1.10"	**2203-0952**
12.7-2	1/2 x 3/8"	.087 & .094"	GTN-2	1.18"	**2203-1272**
12.7-3	1/2 x 3/8"	.120"	GTN-3	1.26"	**2203-1273**
16-4	5/8 x 1/2"	.160"	GTN-4	1.34"	**2203-1640***
19-4	3/4 x 1/2"	.160"	GTN-4	1.38"	**2203-1940***
19-5	3/4 x 1/2"	.187 & .200"	GTN-5	1.38"	**2203-1950***

SLTH STYLE CUT-OFF TOOL HOLDERS
Accepts GTN Carbide Inserts

Limited Supply!



Inserts shown on page 161

INSERTS NOT INCLUDED

Holder Style	Shank Size	Insert Width	Use Insert	Max. Work Diameter	RH Item#
9.5-2	3/8 x 3/8"	.087 & .094"	GTN-2	1-7/64"	**2201-0952**
12.7-2	1/2 x 25/64"	.087 & .094"	GTN-2	1-11/64"	**2201-1272**
16-4	5/8 x 15/32"	.160"	GTN-4	1-21/64"	**2201-1640**
19-4	3/4 x 15/32"	.160"	GTN-4	1-17/32"	**2201-1940**

GROOVING INTERGRAL SHANK TOOL HOLDERS
Accepts GTN Carbide Inserts

INSERTS NOT INCLUDED



Inserts shown on page 161

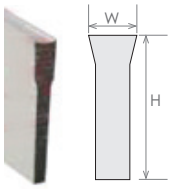
Limited Supply!

Holder Style	Shank Size	Use Insert	Max. Depth	RH Item#
08R-25	1/2 x 1/2"	GTN-3	.79"	**2204-0825**
10R-25	5/8 x 5/8"	GTN-3	.79"	**2204-1025**
12R-30	3/4 x 3/4"	GTN-3	.79"	**2204-1230**
12R-40	3/4 x 3/4"	GTN-4	.79"	**2204-1240**
16R-30	1 x 1"	GTN-4	.98"	**2204-1630**

CUT-OFF TOOLS & BLADES

P-TYPE CUT-OFF BLADES

- Parallel style blades have continuous width of cutting edge throughout length of blade.
- Used with Aloris, DORIAN & KDK type quick-change tool holders.





- **M2 HIGH SPEED STEEL** A fine general purpose ground tool bits show exceptional result on mild steel, alloys and tool steels. This tool bit makes a superior finishing tool.
- **COBALT** M42 (8%) Superior types of high speed steel which will work better where high heat is present. Used for heavy cuts in hard materials.

Parallel Style	Width W (In)	Height H (In)	Length (In)	*HSS* Item#	*8% Cobalt* Item#
P1N	.04	1/2	3-1/2	**2000-6008**	**2000-7008**
P1	1/16	1/2	4-1/2	**2000-6010**	**2000-7010**
P2	3/32	1/2	4-1/2	**2000-6020**	**2000-7020**
P2N	5/64	1/2	4-1/2	**2000-6022**	----------
P3S	1/8	1/2	4-1/2	**2000-6025**	**2000-7025**
P3N	3/32	11/16	5	**2000-6030**	**2000-7030**
P3	1/8	11/16	5	**2000-6035**	**2000-7035**
P3W	1/8	3/4	5	**2000-6050**	**2000-7050**
P4	5/32	11/16	5	----------	**2000-7055**
P5	3/16	7/8	6	**2000-6064**	----------
P5X	1/8	7/8	6	**2000-6065**	**2000-7065**
P5N	5/32	7/8	6	**2000-6066***	----------
P6	1/4	7/8	6	**2000-6070**	----------

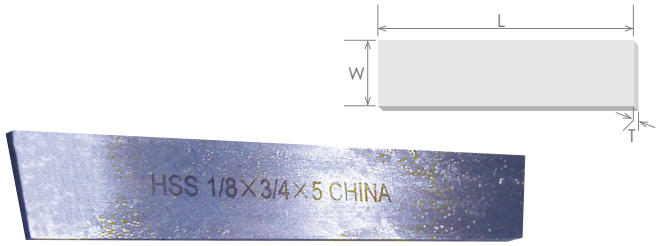
* Limited Supply

CUT-OFF BLADES, BEVELED

- **M2 HIGH SPEED STEEL** A fine general purpose ground tool bits show exceptional result on mild steel, alloys and tool steels. This tool bit makes a superior finishing tool.
- **COBALT** M35 (5%) Superior types of high speed steel which will work better where high heat is present. Used for heavy cuts in hard materials.

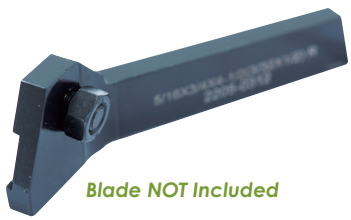
(Inch) Size (TxWxL)	*HSS* Item#	*5% COBALT* Item#
3/32 x 1/2 x 4-1/2	**2000-1002**	**2000-1102**
3/32 x 5/8 x 5	**2000-1003**	**2000-1106**
1/8 x 1/2 x 4-1/2	**2000-1000**	**2000-1110**
1/8 x 3/4 x 5	**2000-1004**	**2000-1114**
1/8 x 7/8 x 6	**2000-1005**	**2000-1118**

- Used with Aloris, DORIAN & KDK type quick-change tool holders.
- 10° double beveled.



CUT-OFF TOOL HOLDERS - For Use With Cut-Off Blades

Machined to precise tolerances and carefully heat-treated, these cut-off tool holders support the blade over a wide area, reducing the chance of blade breakage. Blade can be adjusted to any desired clearance for greater versatility, and it is beveled on both sides and held at an angle, providing necessary side clearance and top rake for a clean smooth cut. These holders DO NOT hold parallel type cut-off blades.



Blade NOT Included

Limited Supply!



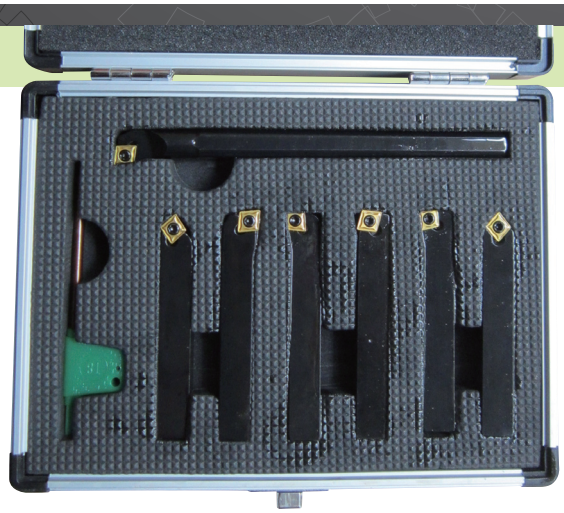
Holder Size	Cut-Off Blade Size	Item#
5/16 x 3/4 x 4-1/2"	3/32 x 1/2"	**2205-0312**
3/8 x 7/8 x 5"	3/32 x 5/8"	**2205-0375**
1/2 x 1-1/8 x 6"	1/8 x 3/4"	**2205-0500**
5/8 x 1-3/8 x 7"	1/8 x 7/8"	**2205-0625**
3/4 x 1-5/8 x 8"	3/16 x 1"	**2205-0750**

7 PC MINI TOOL HOLDER SET - Accept CCMT Inserts

- **Comprehensive Tooling Solution:** Includes six precision turning holders plus a dedicated boring bar, covering everything from OD profiling to internal clearance.
- **Optimized for Small-Scale Lathes:** Specifically sized for benchtop and mini-lathes, providing the rigidity needed for high-accuracy work on small-diameter parts.
- **Precision:** Eliminate the guesswork of hand-grinding; the pre-set geometry ensures consistent center heights and professional finishes every time.
- **All-in-One Value:** A complete set that outpaces standard 5-piece sets by adding internal machining capabilities at a competitive price.

Set includes:

6-Turning Holder (SCMCN, SCDCN, SCLCR, SCLCL, SCKCR & SCBCR)
1-Boring Holder (SCLCR)
1-T8 Torx Wrench
1-Fitted Case



Item#	Turn Shank	Bore Shank	Insert	Screw
2003-0250*	1/4"	5/16"	CCMT21.5	M2.5x6
2003-0375	3/8"	3/8"	CCMT21.5	M2.5x6
2003-0500	1/2"	1/2"	CCMT21.5	M2.5x6
2003-0625*	5/8"	5/8"	CCMT32.5	M4x10

* Limited Supply

CCMT inserts shown on page 194

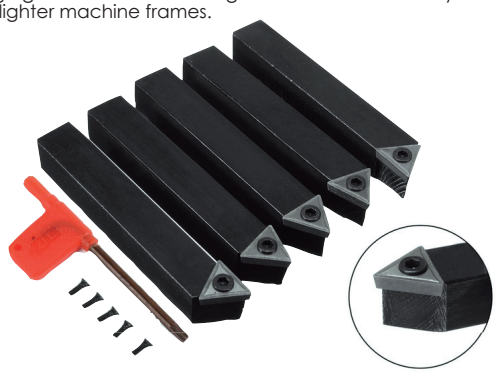
5 PC INDEXABLE CARBIDE TURNING TOOL SETS - Accepts TCMT Inserts

- **The Precision Workhorse:** The core set for standard turning and facing, perfect for the machinist focusing on external part geometry and cleanup.
- **Indexable Efficiency:** Features quick-change carbide inserts that maintain exact tolerances across projects without the downtime of tool reshaping.
- **Versatile Material Range:** Engineered to deliver clean cuts on everything from free-machining aluminum to tougher 4140 alloys often used in hobbyist repair.
- **Compact Rigidity:** High-grade steel shanks designed to maximize stability and reduce vibration on lighter machine frames.

5 PC SETS

Item#	Square Shank	Insert I.C.	Set No.	Torx Wr.
2003-0001	1/4"	7/32"	ST-4	T6
2003-0002	3/8"	1/4"	ST-6	T8
2003-0003	1/2"	3/8"	ST-8	T15
2003-0004	5/8"	3/8"	ST-10	T15
2003-0005	3/4"	3/8"	ST-12	T15
2003-0006	1"	1/2"	ST-16	T20

5 PC set includes:
- One of each - AR, AL, BR, BL & E Holder
- C-5 Inserts, TCMT style
- 5 PC spare screws
- 2 Torx wrench
- Fitted case.



INDIVIDUAL (Insert & Torx Wrench Included)

Type	*1/4 Shank* 7/32 IC Insert Item#	*3/8 Shank* 1/4 IC Insert Item#	*1/2 Shank* 3/8 IC Insert Item#	*5/8 Shank* 3/8 IC Insert Item#	*3/4 Shank* 3/8 IC Insert Item#	*1 Shank* 1/2 IC Insert Item#
AR	2003-0101	2003-0111	2003-0121	2003-0131	2003-0141	2003-0151*
AL	2003-0102	2003-0112	2003-0122	2003-0132	2003-0142*	2003-0152*
BR	2003-0103*	2003-0113*	2003-0123	2003-0133	2003-0143*	2003-0153*
BL	2003-0104*	2003-0114*	2003-0124	2003-0134	2003-0144	2003-0154*
E	2003-0105*	2003-0115	2003-0125	2003-0135	2003-0145*	2003-0155*

* Limited Supply

REPLACEMENT INSERTS

Fit Shank	Insert I.C.	Insert No.	*TiN (C-6)* Item#
1/4"	7/32	TCMT090204	6004-9020
3/8"	1/4	TCMT110204	6004-9021
1/2, 5/8 & 3/4"	3/8	TCMT16T304	6004-9031
1"	1/2	TCMT220408	6004-6142

See page 215 for TCMT inserts



10 PC PER PACKAGE



REPLACEMENT SCREWS

Screw	For Set	Item#
M2.5	1/4, 3/8"	2003-0012
M4	1/2, 5/8 & 3/4"	2100-0074
M5	1"	2100-0076

5 PC INDEXABLE CARBIDE TURNING & BORING TOOL SETS - Accepts TCMT Inserts

- **Essential Versatility:** Combines four specialized external turning tools with a dedicated boring bar for a complete inside-out machining solution.
- **Precision Internal Work:** The included boring bar allows for high-accuracy internal sizing and facing on small-scale components.
- **Optimized for Small Lathes:** Low-profile shanks provide the necessary clearance and rigidity for benchtop machines with limited swing.
- **Maximum Tool Life:** High-grade indexable inserts handle tough alloys and stainless steel while maintaining a sharp edge far longer than HSS.



TCMT Inserts see page 215

5 PC Set Includes:
- One of each – STFCR, STCCR, STECN & STNCR turning tools and STACR boring tool.
- Inserts
- Torx wrench
- Fitted aluminum case

Item #	Shank	Style in Set	Insert	Screw
2003-0031	5/16	STACR05-1.8	TCMT090204	M2.2x6
		STDCR05-1.8	TCMT090204	M2.2x6
		STNCR05-1.8	TCMT090204	M2.2x6
		STECN05-1.8	TCMT090204	M2.2x6
		S05H-STFCR1.8	TCMT090204	M2.2x6
2003-0032	3/8	STACR06-2	TCMT110204	M2.5x6
		STDCR06-2	TCMT110204	M2.5x6
		STNCR06-2	TCMT110204	M2.5x6
		STECN06-2	TCMT110204	M2.5x6
		S06M-STFCR2	TCMT110204	M2.5x6
2003-0033	1/2	STACR08-2	TCMT110204	M2.5x6
		STDCR08-2	TCMT110204	M2.5x6
		STNCR08-2	TCMT110204	M2.5x6
		STECN08-2	TCMT110204	M2.5x6
		S08Q-STFCR2	TCMT110204	M2.5x6
2003-0034	5/8	STACR10-3	TCMT16T304	M4x10
		STDCR10-3	TCMT16T304	M4x10
		STNCR10-3	TCMT16T304	M4x10
		STECN10-3	TCMT16T304	M4x10
		S10R-STFCR3	TCMT16T304	M4x8
2003-0035	3/4	STACR12-3	TCMT16T304	M4x10
		STDCR12-3	TCMT16T304	M4x10
		STNCR12-3	TCMT16T304	M4x10
		STECN12-3	TCMT16T304	M4x10
		S12S-STFCR3	TCMT16T304	M4x10

Pro-Series 7 PC INDEXABLE TURNING TOOL SETS



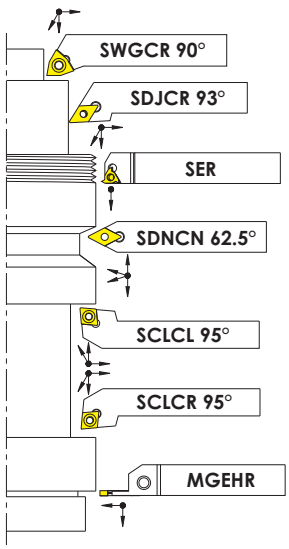


- **External Turning:** Used to remove material and reduce diameter on lathe workpieces.
- **Facing Operations:** Creates smooth, flat surfaces on the ends of parts.
- **Profiling & Contouring:** Ideal for shaping complex geometries and angles.
- **Threading & Grooving:** Supports cutting threads and making grooves or recesses.
- **Cut-Off (Parting):** Allows clean separation of finished parts from stock material.

Item#	Shank	Style in Set	Insert	Screw
2002-0112	3/8	MGEHR3/8-02 (CUT OFF BLADE)	MGMN200	GB70-85/M4x12
		SER3/8-11	11ERA60	M2.5x6
		SWGCR3/8-05	WCMT050308	M3x8
		SCLCR3/8-2	CCMT060204	M2.5x6
		SCLCL3/8-2	CCMT060204	M2.5x6
		SDNCN3/8-2	DCMT070204	M2.5x6
		SDJCR3/8-2	DCMT070204	M2.5x6
2002-0113	1/2	MGEHR1/2-02 (CUT OFF BLADE)	MGMN200	GB70-85/M4x12
		SER1/2-11	11ER A60	M2.5x6
		SWGCR1/2-05	WCMT050308	M3x8
		SCLCR1/2-2	CCMT060204	M2.5x6
		SCLCL1/2-2	CCMT060204	M2.5x6
		SDNCN1/2-2	DCMT070204	M2.5x6
		SDJCR1/2-2	DCMT070204	M2.5x6
2002-0114	5/8	MGEHR5/8-03 (CUT OFF BLADE)	MGMN300	GB70-85/M5x14
		SER5/8-16	16ER A60	M3.5x11
		SWGCR5/8-06	WCMT06T308	M4x8
		SCLCR5/8-3	CCMT09T304	M4x10
		SCLCL5/8-3	CCMT09T304	M4x10
		SDNCN5/8-3	DCMT11T304	M4x10
		SDJCR5/8-3	DCMT11T304	M4x10
2002-0115	3/4	MGEHR3/4-03 (CUT OFF BLADE)	MGMN300	GB70-85/M5x14
		SER3/4-16	16ER A60	M3.5x11
		SWGCR3/4-06	WCMT06T308	M4x10
		SCLCR3/4-3	CCMT09T304	M4x10
		SCLCL3/4-3	CCMT09T304	M4x10
		SDNCN3/4-3	DCMT11T304	M4x10
		SDJCR3/4-3	DCMT11T304	M4x10

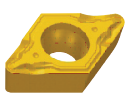
7 PC Set Includes:

- Seven holders (described in chart)
- Inserts
- Torx wrench
- Fitted case



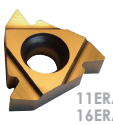
REPLACEMENT CARBIDE INSERTS

- **For 7pc Indexable Tools Sets.**
- Coated.


DCMT Style Shown


CCMT Style Shown


WCMT Style Shown


11ERA60 16ERA60 Style Shown

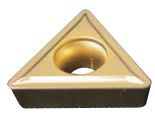

MGMN Style Shown

Item#	Insert No.	Coated Grade
6024-3022	MGMN-200-G	BPS253CVD
6007-0004	11ERA60	TiN
6015-0005	WCMT050308	XAF799
6003-2021	CCMT060204	TiN
6004-0021	DCMT070204	XAB749
6024-3003	MGMN300-M	BPS-253CVD
6007-0012	16ERA60	TiN
6015-0008	WCMT06T304	XAF799
6003-2032	CCMT09T304	TiN
6004-0032	DCMT11T304	XAB749

REPLACEMENT CARBIDE INSERTS-TCMT

- **For 5pc Indexable Tools Sets.**
- Tin Coated.

Item#	Insert No.	Grade
6004-9020	TCMT090204	TiN
6004-9021	TCMT110204	TiN
6004-9031	TCMT16T304	TiN



SCREWS

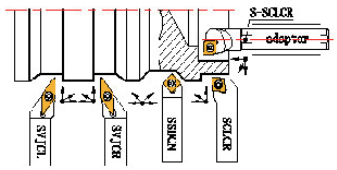


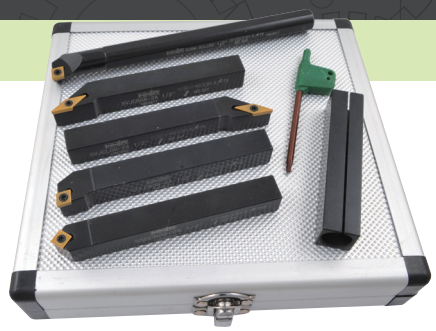
Item#	Style
2100-0065	M2.2x6
2100-0070	M2.5x6
2100-0003	M3x8
2100-0083	M3.5x11
2100-0069	M4x8
2100-0074	M4x10
2100-0082	GB70-85 M4x12
2100-0087	GB70-85 M5x14

6 PC 1/2" SHANK INDEXABLE TURNING TOOL SETS

- Made of 40Cr alloy steel.
- Screw down style.
- Tin coated inserts included.
- Complete with fitted aluminium case.

6 PC SET
3/8" SHANK
2003-0701*





6 PC SET
1/2" SHANK
2003-0705*

* Limited Supply

Holder Style	Shank	Holder	OAL	Use Insert	Use Torx Wr.	Use Screw
SVJCR06-2	3/8"	Turning	3	VCMT21.51	T-8	M2.5x7
SVJCL06-2	3/8"	Turning	3	VCMT21.51	T-8	M2.5x7
SCLCR06-2	3/8"	Boring	3	CCMT21.51	T-8	M2.5x7
SSDCN06-2J	3/8"	Turning	3	SCMT21.51	T-8	M2.5x7
S06H-SCLCR2	3/8"	Boring	4	CCMT21.51	T-8	M2.5x6
(1/2x1/2 with 3/8"Hole)	3/8"	Adapter	2.75	--	--	---

Shank No.	Center Height	Shank Dia.	OAL	Insert	Screw	Torx Wr.
SVJCR08-2A	1/2"	-	4"	VCMT21.51	M2.5x7	T8
SVJCL08-2A	1/2"	-	4"	VCMT21.51	M2.5x7	T8
SCLCR08-2A	1/2"	-	4"	CCMT21.51	M2.5x7	T8
SSDCN08-2A	1/2"	-	4"	SCMT21.51	M2.5x7	T8
S06K-SCLCR2	-	1/2"	5"	CCMT21.51	M2.5x6	T8
ADAPTER 1/2" I.D.	-	-	-	-	-	-

INSERTS - Replacement

Item #	Size
6053-0111	CCMT21.51
6004-3030*	SCMT21.51
6005-3403	VCMT21.51

SCREWS - Replacement

Item #	Size
2100-0070	M2.5x6
2100-0066	M2.5x7

TORX WRENCH - Replacement

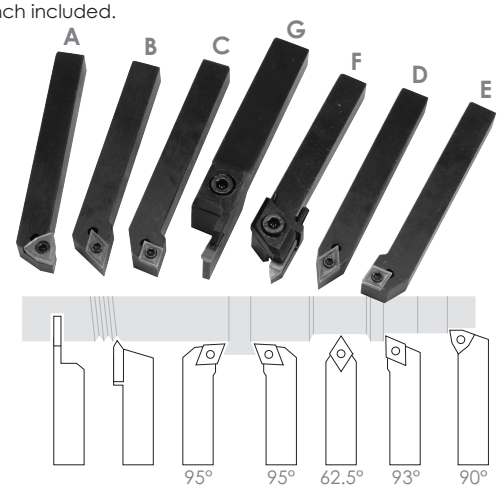
Item #	Size
2100-0092	T8

7 PC INDEXABLE CUT OFF AND TURNING TOOL SETS

- Carbide inserts and Allen wrench included.
- Multi-purpose Indexable tools
- Complete with fitted case.

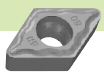
7PC SET INCLUDES:

(A) Right Hand 90°
(B)Right Hand 93°
(C) Right Hand 95°
(D) Right Hand 62.5°
(E) Left Hand 95°
(F) External Threading
(G) Cut-off tool



7 PC SETS

Item#	Shank Height
2002-0010	1/4"
2002-0012	3/8"
2002-0013	1/2"
2002-0014	5/8"
2002-0015	3/4"



10 PC PER PACKAGE

C-6 INSERTS-REPLACEMENT

Item#	Style	For Shank	Insert No.
6003-2021	C, E	1/4,3/8 & 1/2"	CCMT060204
2002-0104	B, D	1/4,3/8 & 1/2"	DCMT070202
2002-0105	F	1/4,3/8 & 1/2"	JCL-15-120
2002-0106	G	All	JCQ3
2002-0107	A	1/4,3/8 & 1/2"	WCMX50308
6003-5031	C, E	5/8 & 3/4"	CCMT09T304
6004-0031	B, D	5/8 & 3/4"	DCMT11T304
2002-0127	F	5/8 & 3/4"	JCL20-120A
2002-0128	A	5/8 & 3/4"	WCMT06T308
2002-0126	A	5/8 & 3/4"	WCMT06T304
2002-0130	A	1/4,3/8 & 1/2"	WCMT050308

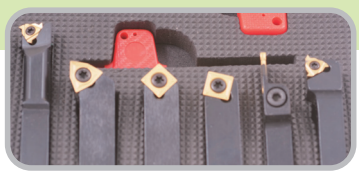


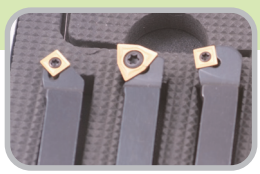
SCREWS-REPLACEMENT

Item#	For Shank
2002-0122	1/4, 3/8 & 1/2"
2002-0142	5/8, & 3/4"

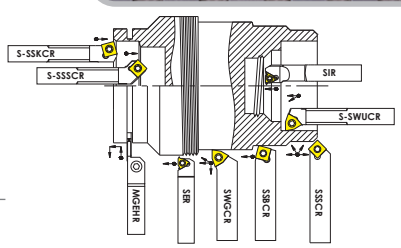
9 PC INDEXABLE TURNING & BORING TOOL SETS

- Complete with fitted aluminium case.
- **Set includes:** Turning Holders, Boring Tools Holders, Inserts & Torx Wrenches





Item #	Shank	Style in Set	Insert	Screw
2002-0212	3/8	SSSCR3/8-3	SCMT09T3	M4x10
		SSBCR3/8-3	SCMT09T3	M4x10
		SWGCR3/8"-3	WCMT06T3	M4x10
		S-SSSCR5/16H3	SCMT060204	M2.5x6
		S-SSKCR5/16H3	SCMT060204	M2.5x6
		S-SWUCR5/16"H3	WCMT06T3	M4x8
		SER0375F11	11ERA60	M2.5x6
		S3/8H-SIR11	11IRA60	M2.5x6
		MGEHR3/8-02	MGMN200	GB70-85/M4x12
2002-0213	1/2	SSSCR1/2-3	SCMT09T3	M4x10
		SSBCR1/2-3	SCMT09T3	M4x10
		SWGCR1/2-3	WCMT06T3	M4x10
		S-SSSCR3/8J3	SCMT09T3	M4x10
		S-SSKCR3/8J3	SCMT09T3	M4x10
		S-SWUCR3/8J3	WCMT06T3	M4x10
		SER0500H11	11ERA60	M2.5x6
		S1/2J-STR11	11IRA60	M2.5x6
		MGEHR1/2-02	MGMN200	GB70-85/M4x12





Inserts-Replacement

Item#	Insert No.	Coated Grade
6004-3031	SCMT09T304	XAB749
2002-0128	WCMT06T308	TiN
6004-3030*	SCMT060204	TiN

* Limited Supply

INDEXABLE BORING BARS

INDEXABLE BORING BAR IDENTIFICATION SYSTEM

S 8 R - S C L P R 2

TYPE OF BAR
S = Steel
A = Steel with coolant hole
C = Carbide
E = Carbide with coolant hole

SHANK DIAMETER (INCH)
Indicates bar diameter in sixteenths of an inch. Consult catalog for minimum bore diameter capability

BORING BAR LENGTH (INCH)
F=3" Q=7"
G=3.5 R=8
H=4 S=10
J=4.5 T=12
K=5 U=14
L=5.5 V=16
M=6 W=18
N=6.5 T=20
P=6.75 X=Special Length

HAND OF BAR
R = Right
L = Left

INSERT SIZE (I.C.)
1.2 = .1562"
1.5 = .1875
1.8 = .2187
2 = .250
2.5 = .3125
3 = .375
4 = .500
5 = .625
6 = .750
8 = 1.000

METHOD OF HOLDING INSERT
M = Clamp and lock pin
P = Lock pin
C = Clamp
S = Screw

INSERT SHAPE
C = 80° Diamond Insert
D = 55° Diamond Insert
S = Square Insert
T = Triangle Insert
V = 35° Diamond Insert
R = Round (Inch)
W = Trigon

BAR STYLE
U=Offset shank with negative 3° (93°) end or side cutting edge angle
F=Offset shank with 0° (90°) end cutting edge angle
G=Offset shank side/end cutting (round insert)
K=Offset shank with 15° (75°) end cutting edge angle
L=Offset shank with negative 5° (93°) end or side cutting edge angle
Q=Offset shank with negative 17.5° (107.5°) cutting edge angle
LX=Offset shank with negative 5° (95°) end cutting edge angle, back boring
X=Offset shank with negative 27.5° (117.5°) side or end cutting edge angle

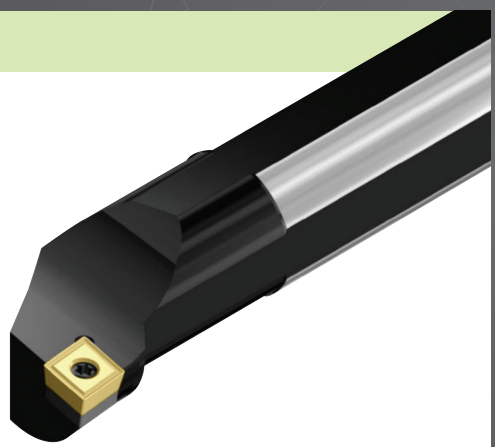
BAR RAKE ANGLE
P = Positive
N = Negative
O = Neutral

SCLCR INDEXABLE BORING BARS & SETS

SCLCR

- Utilize CCMT 80° diamond inserts.
- 7° Relief angle.
- Negative 5° Lead angle for boring.
- 3° Side & end cutting edge angle.
- Torx wrench included.
- CCMT insert included.





Application:
- Profiling bars for semi-finishing and finishing operations

3 PC SET Style A, B, C	3 PC SET Style C, E, F	4 PC SET Style B, D, E, F	5 PC SET Style A, B, C, E, F
1001-0020	1001-0021	1001-0054	1001-0023
5/16, 3/8 & 1/2	1/2, 5/8 & 3/4"	3/8, 1/2, 5/8 & 3/4"	5/16, 3/8, 1/2, 5/8 & 3/4"

INDIVIDUALS

Item#	SET/Style	Dia. x OAL	Min. Bore	Insert	Screw	Torx Wrench
1001-0025	A	5/16 x 4"	.415"	CCMT-21.5	M2.5x5	T-8
1001-0026	B	3/8 x 6"	.480"	CCMT-21.5	M2.5x6	T-8
1001-0024	C	1/2 x 8"	.600"	CCMT-21.5	M2.5x6	T-8
1001-0027	D	1/2 x 7"	.600"	CCMT-32.5	M4x8	T-15
1001-0028	E	5/8 x 8"	.770"	CCMT-32.5	M4x8	T-15
1001-0029	F	3/4 x 10"	.945"	CCMT-32.5	M4x10	T-15
1001-0030	G	1 x 12"	1.250"	CCMT-32.5	M4x10	T-15

Replacement INSERTS

Item #	Size
6053-0111	CCMT21.51
6053-0112	CCMT21.52
6053-0222	CCMT32.52

Replacement SCREWS

Item #	Size
2100-0070	M2.5x6
2100-0069	M4x8
2100-0074	M4x10
2100-0076	M5x12

Replacement TORX WRENCHES

Item #	Size
2100-0092	T8
2100-0095	T15
2100-0096	T20

See page 194 for carbide inserts. Spare parts shown on pages 187-188.

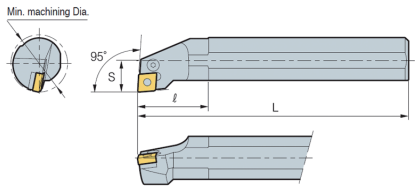
SCLCR COOLANT-THRU INDEXABLE BORING BARS & SETS

SCLCR

- Utilizes CCMT 80° diamond inserts.
- 7° Relief angle.
- Negative 5° Lead angle for boring.
- Torx wrench included.
- CCMT insert included.

4 pc Set Includes:
- (4) Indexable Boring Bars.
- (2) Torx wrenches.
- (14) CCMT inserts

4 PC SET COOLANT-THRU
1001–0699
5/16, 3/8, 1/2 & 5/8"





Application:
- Profiling bars for semi-finishing and finishing operations
- The coolant hole allows the cutting edge to cool and removes chips.

See pages 194 for carbide inserts.
Spare parts shown on pages 187-188.

INDIVIDUAL

Dimension Style	(Inch) Dia. x OAL	Min. Bore	Insert	Screw	Torx Wrench	Item#
A05H-SCLCR2	5/16 x 4	0.415"	CCMT-21.5	M2.5x5	T-8	**1001-0312***
A06J-SCLCR2	3/8 x 4-1/2	0.48"	CCMT-21.5	M2.5x6	T-8	**1001-0375**
A08K-SCLCR2	1/2 x 5	0.6"	CCMT-21.5	M2.5x6	T-8	**1001-0500***
A10M-SCLCR2	5/8 x 6	0.77"	CCMT-21.5	M2.5x6	T-8	**1001-0625***

* Limited Supply

SCLCR INDEXABLE BORING BARS - Metric Shank
Negative 5° Lead Angle, -5° Relief

SCLCR

- Designed for 90° internal boring and facing operations.
- Metric shank boring bar with right-hand cutting direction.
- Uses industry-standard CCMT 80° diamond inserts.
- Negative 5° lead angle for stable, controlled boring.
- Rigid steel construction for reduced chatter and longer tool life.
- Includes CCMT insert and Torx wrench (ready to use).
- Ideal for CNC and manual lathes.



RIGHT HAND



INSERT INCLUDED

Dimension Style	Shank Dia. (mm)	OAL (mm)	Min. Bore (mm)	Insert Style	Screw	Torx Wrench	Item#
S06F SCLCR-06	6	80	9	CCMT-0602	M2x6	T-8	**1006-0024**
S08H SCLCR-06	8	100	11	CCMT-0602	M2x6	T-8	**1006-0025**
S10K SCLCR-06	10	125	13	CCMT-0602	M2x6	T-8	**1006-0026**
S12M SCLCR-09	12	150	16	CCMT-09T3	M3.5x10	T-15	**1006-0027**
S16R SCLCR-09	16	200	20	CCMT-09T3	M3.5x10	T-15	**1006-0028**
S20S SCLCR-09	20	250	25	CCMT-09T3	M3.5x10	T-15	**1006-0029**
S25T SCLCR-09	25	300	32	CCMT-09T3	M3.5x10	T-15	**1006-0030**

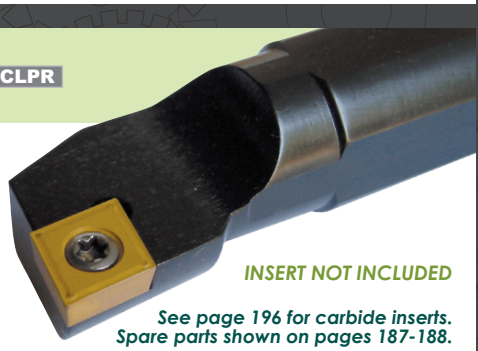
SCLPR INDEXABLE BORING BARS-SCREW ON STYLE
Negative 5-Degree Lead Angle for Boring and Profiling, 11° Relief

SCLPR

- Use for boring & facing

Boring Bar Style	Shank	(Inch) Min. Bore	OAL	Insert Style	Screw	Torx Wrench	Item#
6M-2	0.375	0.480	6	CPMT-21.51	M2.5x6	T-8	**1009-0375***
10S-3	0.625	0.770	10	CPMT-32.52	M4x8	T-15	**1009-0625***
12S-3	0.750	.0945	10	CPMT-32.52	M4x10	T-15	**1009-0750**
16T-4	1.000	1.250	12	CPMT-432	M5x12	T-20	**1009-1000**

* Limited Supply



INSERT NOT INCLUDED

See page 196 for carbide inserts.
Spare parts shown on pages 187-188.

SDJCR INDEXABLE BORING BARS - SCREW ON
Negative 3-Degree Lead Angle, 7° Relief

SDJCR-RH

- Use DCMT 55° rhombic positive inserts

Application: Profiling and copying boring bar for semi finishing

Boring Bar Style	Shank	(Inch) Min. Bore	OAL	Use Insert	Screw	Torx Wrench	Item#
8-2	1/2	.780	8	DCMT-21.52	M2.5x6	T-8	**1010-0500**
10-2	5/8	.840	10	DCMT-21.52	M2.5x6	T-8	**1010-0625***
12-3	3/4	1.125	10	DCMT-32.52	M4x10	T-15	**1010-0750**
16-3	1	1.500	12	DCMT-32.52	M4x10	T-15	**1010-1000**

* Limited Supply



INSERT NOT INCLUDED

See page 197 for carbide inserts.
Spare parts shown on pages 187-188.

INDEXABLE BORING BARS

SDUCR INDEXABLE BORING BARS - SCREW ON STYLE

Negative 3-Degree Lead Angle for Boring and Profiling, 7° Relief
Offset shank with negative 3° (93°) end or side cutting edge

SDUCR



- Use DCMT 55° rhombic positive inserts

Application: Profiling and copying boring bar for semi finishing

Boring Bar Style	Shank	(Inch) Min. Bore	OAL	Use Insert	Screw	Torx Wrench	Item#
6-2	0.375	0.520	6	DCMT-21.51	M2.5x6	T-8	**1003-2375**
8-2	0.500	0.640	6	DCMT-21.51	M2.5x6	T-8	**1003-2500**
10-2	0.625	0.770	8	DCMT-21.51	M2.5x6	T-8	**1003-2625**
12-3	0.750	0.945	10	DCMT-32.52	M4x10	T-15	**1003-2750**

See page 197 for carbide inserts. Spare parts shown on pages 187-188.

INSERT NOT INCLUDED

STFCR INDEXABLE BORING BARS-SCREW ON STYLE

0-Degree Lead Angle for Boring and Profiling, 7° Relief

STFCR



- Use TCGT or TCMT inserts

Boring Bar Style	Shank	Min. Bore	OAL	Use Insert	Screw	Torx Wrench	Item#
6-2	0.375"	0.480"	6"	TCMT-21.51	M2.5x6	T-8	**1004-2375***
8-2	0.500"	0.600"	8"	TCMT-21.51	M2.5x6	T-8	**1004-2500**
12-3	0.750"	0.945"	10"	TCMT-32.52	M4x10	T-15	**1004-2750**

See page 215 for carbide inserts. Spare parts shown on pages 187-188.

* Limited Supply

INSERT NOT INCLUDED

STFPR INDEXABLE BORING BARS - SCREW ON

0-Degree Lead Angle For Boring and Facing, 11° Relief

STFPR



- Use TPMT inserts

Boring Bar Style	Shank	Min. Bore	OAL	Use Insert	Screw	Torx Wrench	Item#
6M-2	3/8"	0.480"	6"	TPMT-21.51	M2.5x6	T-8	**1021-0375**
8R-2	1/2"	0.600"	8"	TPMT-21.51	M2.5x6	T-8	**1021-0500***
10S-2	5/8"	0.770"	10"	TPMT-21.51	M2.5x6	T-8	**1021-0625***
12S-3	3/4"	0.945"	10"	TPMT-32.52	M4x10	T-15	**1021-0750**
16T-3	1"	1.250"	12"	TPMT-32.52	M4x10	T-15	**1021-1000**
18S-16	18mm	22	250mm	TPMT16T304	M4x8	T-15	**1021-1018***

Spare parts shown on pages 187-188.

* Limited Supply

INSERT NOT INCLUDED

CTFPR INDEXABLE BORING BARS - CLAMP ON

0-Degree Lead Angle For Boring and Facing

MCTFPR



- Use TPG inserts

Boring Bar Style	Shank	Min. Bore	OAL	Use Insert	Clamp	Clamp Screw	Hex Wrench	Item#
16T-3	1"	1.250"	12"	TPG-32.	CTFPN-5	CTFP-M5	3.0mm	**1023-1000**
24U-4	1-1/2"	2.000"	14"	TPG-43.	CL-20	XNS-620	3.0mm	**1023-1500**

See pages 208-209 for carbide inserts. Spare parts shown on pages 187-188.

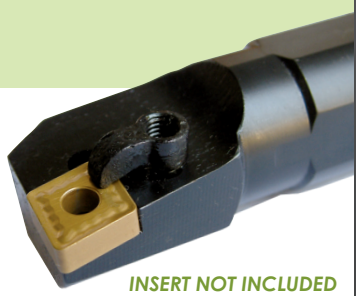
Limited Supply!

INSERT NOT INCLUDED

MCLNR INDEXABLE BORING BARS - CLAMP ON

Negative 5-Degree Lead Angle

MCLNR



- Use CNMG inserts

Boring Bar Style	Shank	Min. Bore	OAL	Use Insert	Lock Pin	Shim	Clamp	Clamp Screw	Hex Wrench	Item#
20T-4	1-1/4"	1.57"	12"	CNMG-432	NL-0617	C1203B	CL-6	XNS0520	2.5mm	**1024-1250**
24U-4	1-1/2"	2.00"	14"	CNMG-432	NL-0617	C1203B	CL-6	XNS0520	2.5mm	**1024-1500**
28U-4	1-3/4"	2.03"	14"	CNMG-432	NL-0617	C1203B	CL-6	XNS0520	2.5mm	**1024-1750***

See pages 194-195 for carbide inserts. Spare parts shown on pages 187-188.

* Limited Supply

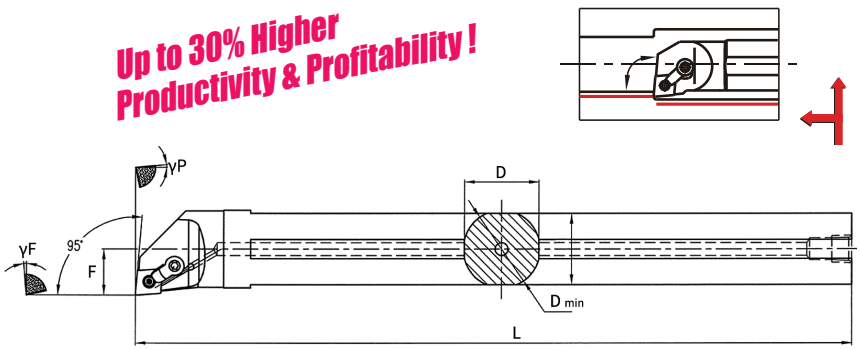
INSERT NOT INCLUDED

HARLINGEN® MCLNR INDEXABLE BORING BARS
-CLAMP ON - COOLANT THRU

MCLNR

- 5-degree lead angle for turning, profiling or facing.
- Uses CNMG432 insert.
- Coolant through.

Up to 30% Higher Productivity & Profitability !





INSERT NOT INCLUDED

Item#	Tool Holder Style	Dimensions F	P	D	D min	L	F	Shim	Lock Pin	Clamp	Clamp Screw	Hex Wrench
9710-0008	A24-4	-12°	-5°	1.453"	1.5"	14"	89/100"	ICSN-433	NL-46	CK-20	SCT-20	S3/32,S1/8

See pages 195-196 for carbide inserts. Spare parts shown on pages 187-188.

MVUR INDEXABLE BORING BARS - CLAMP ON
Negative 3-Degree Lead Angle

MVUR

Uses VNMG, VNMM, VNMA,VBMT Inserts

INSERT NOT INCLUDED



Boring Bar Style	Shank	Min. Bore	OAL	Use Insert	Clamp	Lock Pin	Clamp Screw	Hex Wrench	Item#
16T-3	1"	1.30"	12"	VBMT-332	CL-20	NL-0410	XNS0620	2mmx3mm	**1026-1000**

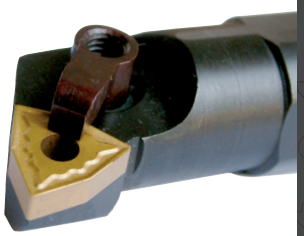
See page 210 for carbide inserts. Spare parts shown on pages 187-188.

MWLNR INDEXABLE BORING BARS - CLAMP ON
Negative 5-Degree Lead Angle, 0° Relief

MWLNR

Uses WNMG, WNMA Inserts

INSERT NOT INCLUDED



Boring Bar Style	Shank	Min. Bore	OAL	Hex Wrench	Use Insert	Lock Pin	Shim	Clamp	Clamp Screw	Hex Wrench	Item#
12S-3	3/4"	0.945"	10"	2mm	WNMG-332	NL-0410	---	CL-6	XNS0520	2.5mm	**1028-0750**
16T-4	1"	1.250"	12"	2mm	WNMG-432	NL-0611	---	CL-20	XNS0620	2.5mm	**1028-1001**
20U-3	1-1/4"	1.540"	14"	2mm	WNMG-332	NL-0414	W0603B	CL-6	XNS0520	2.5mm	**1028-1250***
20U-4	1-1/4"	1.57"	14"	2mm	WNMG-432	NL-0617	W0803B	CL-20	XNS0620	2.5mm	**1028-1251***

See page 211 for carbide inserts. Spare parts shown on pages 187-188.

* Limited Supply

BBN/BBS INDEXABLE BORING BARS
Use TPGH, TPMM, TPGW Inserts • Positive Rake • 11° Relief

INSERT NOT INCLUDED



Boring Bar Style	Shank	Min. Bore	OAL	Use Insert	Lead Angle	Screw	Torx Wrench	Item#
S8	1/2"	.700"	6"	TP..-32.	-1	M4x10	T-15	**1030-0500**
N8	1/2"	.700"	6"	TP..-32.	-5	M4x10	T-15	**1030-0502***
S10	5/8"	.710"	7"	TP..-32.	-1	M4x10	T-15	**1030-0625***
N10	5/8"	.710"	7"	TP..-32.	-5	M4x10	T-15	**1030-0627**
N12-3	3/4"	.845"	10"	TP..-32.	-5	M4x10	T-15	**1030-0750**

See pages 208-210 for carbide inserts. Spare parts shown on pages 187-188.

* Limited Supply

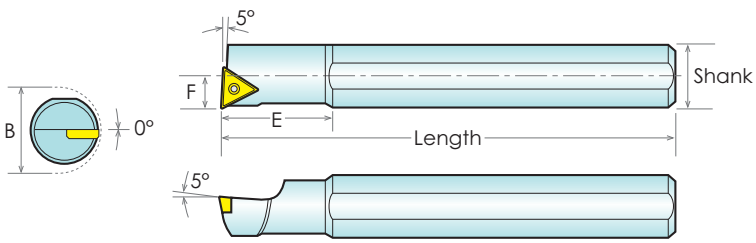
INDEXABLE BORING BARS

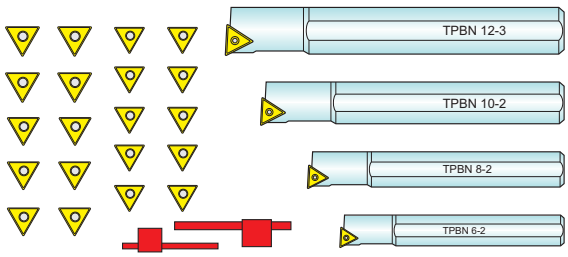
TPBN INDEXABLE BORING BAR SETS
Use TPGW Inserts

- Small hole capacity to a minimum of .430"
- Insert pocket has been scientifically designed to eliminate vibration and maximize the depth of cut.
- Bars made of heat treated, precision ground alloy steel.
- Clearance angle of the insert, in relation to cutting edge, gives best micro finish.
- The positive insert with advanced chip breaker design allows for heavier cuts.

27 PC SET
1001-0727
Includes: 8pc of each Boring Bars, Carbide Inserts, & Torx Screws, 3pc Torx Keys, Fitted Case


1001-0727 Shown





27 PC Set Includes:

Boring Bar Style	Shank	(Inch) Min. Bore	OAL	Screw	Torx Wr.	Use Insert
6-2	1/2	.430	5	M2.5x6	T8	TPGW-21.5
8-2	1/2	.590	6	M2.5x6	T8	TPGW-21.5
10-2	5/8	.682	8	M2.5x6	T8	TPGW-21.5
12-3	3/4	.845	10	M4x8	T15	TPGW-32.
16-3	1	1.115	12	M4x10	T15	TPGW-32.
20-3	1-1/4	1.370	12	M4x10	T15	TPGW-32.
20-4	1-1/4	1.370	12	M5x12	T20	TPGW-43.
24-4	1-1/2	1.680	12	M5x12	T20	TPGW-43.

See page 209 for carbide inserts. Spare parts shown on pages 187-188.

31 PC SET
1001-0731
Includes: 4 pc Boring Bars, 20 PC Carbide Inserts, & 4 pc Torx Screws, 2 PC Torx Keys, Fitted Case

31 PC Set Includes:

Boring Bar Style	Shank	Min. Bore	OAL	Screw	Torx Wr.	Use Insert
6-2	1/2"	.430"	5"	M2.5x6	T8	TPGW-21.5
8-2	1/2"	.590"	6"	M2.5x6	T8	TPGW-21.5
10-2	5/8"	.682"	8"	M2.5x6	T8	TPGW-21.5
12-3	3/4"	.845"	10"	M4x8	T15	TPGW-32.

INDIVIDUAL ROUND SHANK INDEXABLE BORING BARS
Use TCMT Inserts • Positive Rake 90° Lead, 7° Relief

- Negative 3° lead angle.
- Uses TCMT insert.
- Screw down style.
- Includes TiN coated insert.



Item#	Shank Dia.	Length	Bore Depth	Min. Bore	Insert	Screw	Torx Wr.
1001-0741	1/2	2-3/4	1-1/4	7/16	TCMT21.51	M2.5x5	
1001-0743*	1/2	3-5/8	2-1/8	7/16	TCMT21.51	M2.5x5	
1001-0745	1/2	3	1-1/2	1/2	TCMT21.51	M2.5x6	
1001-0747	1/2	4	2-1/2	1/2	TCMT21.51	M2.5x6	
1001-0751*	5/8	3	1-1/4	7/16	TCMT21.51	M2.5x5	T-8
1001-0753*	5/8	3-7/8	2-1/8	7/16	TCMT21.51	M2.5x5	
1001-0755*	5/8	3-1/4	1-1/2	1/2	TCMT21.51	M2.5x6	
1001-0757	5/8	4-1/4	2-1/2	1/2	TCMT21.51	M2.5x6	
1001-0759*	5/8	3-1/2	1-3/4	9/16	TCMT221	M2.5x6	

Item#	Shank Dia.	Length	Bore Depth	Min. Bore	Insert	Screw	Torx Wr.
1001-0761	5/8	4-5/8	2-7/8	9/16	TCMT221	M2.5x6	
1001-0771	3/4	3-3/8	1-3/8	7/16	TCMT21.51	M2.5x5	
1001-0773*	3/4	4-1/4	2-1/4	7/16	TCMT21.51	M2.5x5	
1001-0779*	3/4	3-7/8	1-7/8	9/16	TCMT221	M2.5x6	T-8
1001-0781*	3/4	5	3	9/16	TCMT221	M2.5x6	
1001-0783*	3/4	4-1/4	2-1/4	11/16	TCMT221	M2.5x7	
1001-0785	3/4	5-1/2	3-1/2	11/16	TCMT221	M2.5x7	

* Limited Supply

See page 215 for carbide inserts. Spare parts shown on pages 187-188.

MINI INDEXABLE BORING BARS
Use CCMT Inserts, 7° Relief



- **Indexable Insert Design (CCMT 21.5)** – Uses replaceable carbide inserts for quick changeovers, reducing downtime and tooling cost.
- **Mini Boring Capability** – Designed for small hole diameters, allowing precision machining in tight internal spaces.
- **Screw-Down Insert Clamping** – Secure insert retention improves stability and minimizes movement during cutting.
- **7° Positive Relief Geometry** – Reduces cutting pressure for smoother finishes and improved chip evacuation.
- **Solid Steel Shank Construction** – Provides rigidity and vibration resistance for better accuracy and longer tool life.
- Ideal for machinists working with tight tolerances in confined areas

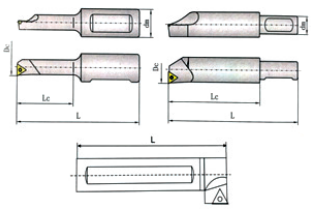
See page 194 for carbide inserts. Spare parts shown on pages 187-188.

Boring Bar Style	Shank	Min. Bore	OAL	Neck Dia.	Neck Length	Use Insert	Screw	Torx	Item#
S05 SCLCR06	5/16"	.415"	4.00"	.236"	.985"	CCMT-21.5	M2.5x5	T-8	**1031-0312**
S06 SCLCR06	3/8"	.472"	4.33"	.315"	1.26"	CCMT-21.5	M2.5x6	T-8	**1031-0375**
S08 SCLCR06	1/2"	.552"	5.00"	.393"	1.50"	CCMT-21.5	M2.5x6	T-8	**1031-0500**
S10 SCLCR06	5/8"	.708"	5.90"	.472"	1.97"	CCMT-21.5	M2.5x6	T-8	**1031-0625**

7 PC 18MM ROUND SHANK INDEXABLE BORING BAR SET
Use TCMT Inserts • Positive Rake 90° Lead 7° Relief



- **Indexable Carbide Insert System** – Replaceable inserts (TCMT-21.51) reduce tooling cost and allow quick edge changes without resetting the tool.
- **Compact Boring Bar Design** – Slim profile enables machining in small bores and restricted internal diameters.
- **Rigid Steel Shank Construction** – Minimizes vibration and deflection for improved accuracy and surface finish. Made of 40cr alloy steel.
- **Precision Insert Pocket** – Ensures consistent insert positioning for repeatable results and reliable performance.
- **Set includes:** 7 boring bars, C-6 inserts, torx wrenches and fitted case.
- Ideal for general machining, toolrooms, and production environments



18MM Shank

Shank No.	Dc Min.	Shank dm	L	Lc	Insert	Screw	Torx Wr.
SBJ1810-40TC06	10	18	88	40	TCMT06T104L	M2x5	T6
SBJ1812-53TC09	12	18	100	53	TCMT090204L	M2.5x6	T8
SBJ1816-68TC09	16	18	113	68	TCMT090204L	M2.5x6	T8
SBJ1820-83TC11	20	18	123	83	TCMT110304L	M3x7	T10
SBJ1825-90TC11	25	18	130	90	TCMT110304L	M3x7	T10
SBJ1830-90TC11	30	18	130	90	TCMT110304L	M3x7	T10
SBJ18F-108TC11	110	18	108	-	TCMT110340L	M3x7	T10



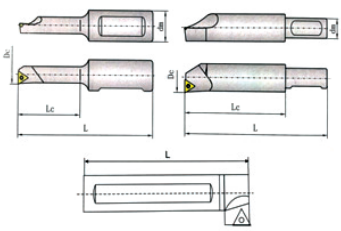
7 PC SET
1001-0718

See page 215 for carbide inserts. Spare parts shown on pages 187-188.

7 PC 1/2" ROUND SHANK INDEXABLE BORING BAR SET
Uses TCMT Inserts, 7° Relief



- **Indexable Insert System** – Quick insert (TC__ style) changes reduce downtime and eliminate the need for regrinding.
- **Precision Ground Shank** – Ensures accurate tool alignment and consistent performance in the holder. Made of 40cr alloy steel.
- **Optimized Cutting Geometry** – Designed for smooth cutting action and improved surface finish.
- **Compact, Reach-Friendly Design** – Allows access into small bores and hard-to-reach internal areas.
- **Secure Screw Clamp Design** – Keeps insert firmly in place under cutting pressure for reliable machining.
- **Set includes:** 7 boring bars, C-6 inserts, torx wrenches and fitted case.
- Ideal for general machining, maintenance, and production shops





7 PC SET
1001-0705

See page 215 for carbide inserts.
Spare parts shown on pages 187-188.

Shank dm	Min. Bore Dc.	Bore Depth Lc	OAL L	Use Insert	Use Torx Wr.	Use Screw	Bar Style Code
1/2"	5/16	1.25	2.75	TCMT06T-104L	T-6	M2x4	SBJ0805-1.25TC52
	3/8	1.57	3.00	TCMT06T-104L	T-6	M2x5	SBJ0806-1.57TC52
	1/2	2.09	3.42	TCMT090204L	T-8	M2.5x6	SBJ0808-2.09TC73
	5/8	2.68	3.94	TCMT090204L	T-8	M2.5x6	SBJ0810-2.68TC73
	3/4	3.25	4.53	TCMT110304L	T-10	M3x8	SBJ0812-3.25TC22
	1	3.54	4.80	TCMT110304L	T-10	M3x8	SBJ0816-3.54TC22
	3	-	2.75	TCMT110304L	T-10	M3x7	SBJ08F-2.75TC22

INDEXABLE BORING BARS

8 PC 3/4" ROUND SHANK INDEXABLE BORING BAR SET
Use TCMT Inserts • Positive Rake 90° Lead 7° Relief



- **Complete 8 Pc Boring Bar Set** – Multiple sizes cover a wide range of bore diameters and applications. Includes: 8 boring bars, C-6 inserts, torx wrenches and fitted case.
- Screw down style
- **Indexable TCMT-21.51 Insert System** – Replaceable inserts reduce tooling cost and allow fast changeovers.
- **Precision Ground Steel Shanks** – Ensures accurate alignment and consistent machining performance.
- **Rigid, Vibration-Resistant Design** – Minimizes chatter for improved surface finish and tool life.
- **Secure Screw Clamp Retention (Torx)** – Provides strong insert holding power under cutting loads.
- Negative 3° lead angle
- Ideal for machinists needing a versatile, all-in-one boring solution

8 PC SET
3/4" SHANK
1001–0708



Set	Shank	Min. Bore	(Inch) OAL	Bore Depth	Use Insert	Use Torx Wr.	Use Screw
8	3/4	7/16	3-3/8	1-3/8	TCMT21-51	T-8	M2.5x5
		7/16	4-1/4	2-1/4			M2.5x5
		1/2	3-5/8	1-5/8			M2.5x6
		1/2	4-5/8	2-5/8			M2.5x6
		9/16	3-7/8	1-7/8	TCMT221		M2.5x6
		9/16	5	3			M2.5x6
		11/16	4-1/4	2-1/4			M2.5x7
		11/16	5-1/2	3-1/2			M2.5x7

See page 215 for carbide inserts. Spare parts shown on pages 187-188.

4 PC 1/2" ROUND SHANK INDEXABLE BORING BAR SET
Use TCMT Inserts • Positive Rake 90° Lead 7° Relief



- **4 Pc Boring Bar Set** – Covers common bore sizes for everyday machining needs. Includes: 4 boring bars, C-6 inserts, torx wrenches and fitted case.
- Screw down style
- **Indexable Carbide Insert System** – Quick insert changes reduce downtime and tooling costs.
- **Precision Ground Steel Shanks** – Ensures accurate alignment and consistent results.
- **Rigid, Vibration-Resistant Design** – Minimizes chatter for improved surface finish.
- **Secure Screw Clamp Retention** – Holds insert firmly in place during cutting operations.
- Negative 3° lead angle
- Ideal for maintenance, toolrooms, and general shop use

Set	Shank	Min. Bore	(Inch) OAL	Bore Depth	Use Insert	Use Torx Wr.	Use Screw
4	1/2	7/16	2-3/4	1-1/4	TCMT21-51	T-8	M2.5x5
	1/2	7/16	3-5/8	2-1/8			M2.5x5
	1/2	1/2	3	1-1/2			M2.5x6
	1/2	1/2	4	2-1/2			M2.5x6

See page 215 for carbide inserts. Spare parts shown on pages 187-188.

4 PC SET
1/2" SHANK
1001–0704

6 PC 5/8" ROUND SHANK INDEXABLE BORING BAR SET
Use TCMT Inserts • Positive Rake 90° Lead 7° Relief



- **6 Pc Boring Bar Set** – Provides versatile coverage for a range of bore sizes. Includes: 6 boring bars, C-6 inserts, torx wrenches and fitted case.
- Screw down style
- **Indexable Carbide Insert System** – Quick insert changes reduce downtime and tooling costs.
- **Precision Ground Steel Shanks** – Ensures accurate alignment and consistent machining performance.
- **Rigid, Vibration-Resistant Design** – Minimizes chatter for improved surface finish and tool life.
- **Secure Screw Clamp Retention (Torx)** – Keeps inserts firmly locked in place during cutting.
- Negative 3° lead angle
- Ideal for machinists needing a versatile mid-range boring solution

6 PC SET
5/8" SHANK
1001–0711



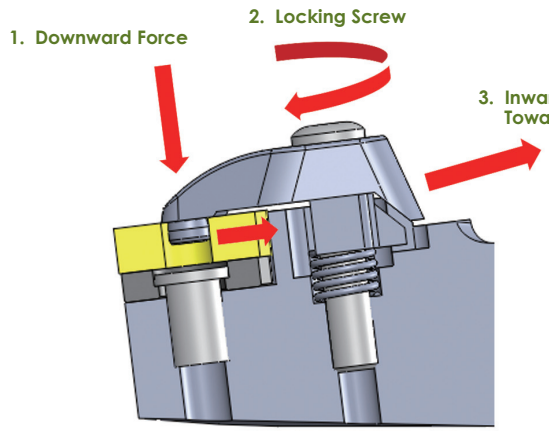


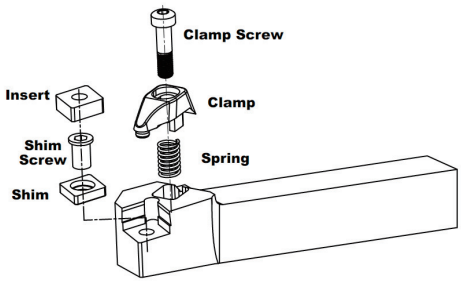
Set	Shank	Min. Bore	(Inch) OAL	Bore Depth	Use Insert	Use Torx Wr.	Use Screw
6	5/8	7/16	3	1-1/4	TCMT21-51	T-8	M2.5x5
		7/16	3-7/8	2-1/8			M2.5x5
		1/2	3-1/4	1-1/2			M2.5x6
		1/2	4-1/4	2-1/2			M2.5x6
		9/16	3-1/2	1-3/4	TCMT221		M2.5x6
		9/16	4-5/8	2-7/8			M2.5x6

See page 215 for carbide inserts. Spare parts shown on pages 187-188.

ADVANTAGES OF T-STYLE TOOL HOLDERS - RIGID CLAMP DESIGN

- New clamping mechanism allows clamping force to be applied not only downward but also pulling inward towards the tool body.
- Unique feature improves clamping rigidity and position accuracy which in turn will extend insert tooling life.
- Locating pin on the front of the clamp makes an arc contact with the inner wall of insert hole, resulting in an evenly distributed clamping force that is more secure and rigid.
- Locating lug on the back of the clamp matches with the slot on the tool body to guide the clamp to be seated repetitively which will improve the clamping accuracy.





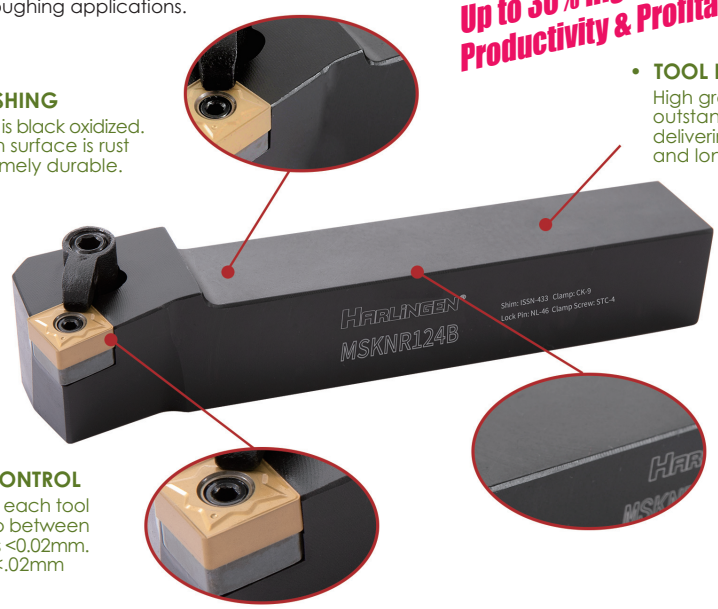
HARLINGEN® HIGH QUALITY INDEXABLE TURNING TOOL HOLDERS - ADVANTAGES

- Superior edge toughness.
- Excellent wear and depth-of-cut notch resistance.
- For use in all finishing, medium, and roughing applications.

Up to 30% Higher Productivity & Profitability !

- **SURFACE FINISHING**
  Each tool holder is black oxidized. The ultra smooth surface is rust proof and extremely durable.

- **TOOL HOLDER HARDNESS HRC 45**
  High grade alloy steel provides outstanding strength and rigidity delivering higher productivty, stability, and longer tool life.

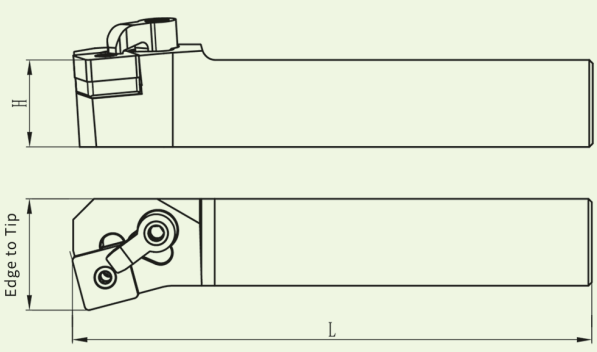


- **CHAMFERS**
  All the chamfers are processed by CNC machines to ensure uniformity.

- **100% INSERT SEATING CONTROL**
  Using a .02mm feeler gage, each tool is qualified to assure the gap between the insert and pocket base is <0.02mm. We guarantee the Gap is <.02mm

INSERT BASE, NOSE HEIGHT, EDGE TO TIP, LENGTH OF TOOL HOLDER.

Each dimension is 100% inspected by testing with specific inspection insert according to ISO standard.

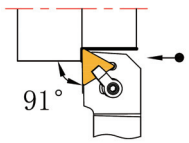


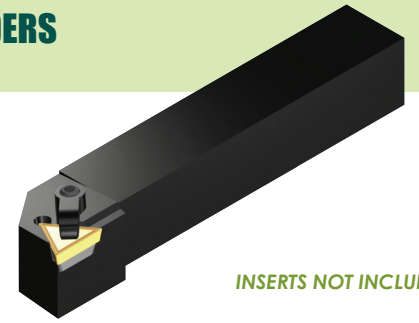
CTGPR TOP CLAMP STYLE TOOL HOLDERS
0° LEAD ANGLE • RIGHT HAND

CTGPR

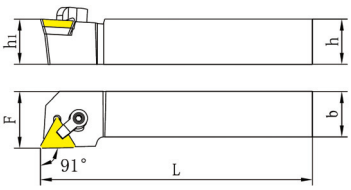
- 11° Relief

90° RIGHT HAND





INSERTS NOT INCLUDED



Item#	Industry Ref. No.	Dimensions h=h1	Shank Dia. b	Offset F	OAL L	Insert	Shim	Shim Screw	Clamp	Clamp Screw	Key
2015-1103	CTGPR12-3B	5/8"	5/8"	7/8"	4-1/2"	TP...32.	T16D	M3x8-D5	CL-6	XNS-0520	S2 S2.5
2015-1123	CTGPR16-4D	3/4"	3/4"	1.00"	4-1/2"	TP...43.	T22D	M3x8-D5	CL-12	XNS-0229	S2 S2.5
2015-1163*	CTGPR20-4D	1"	1"	1.25"	6"	TP...43.	T22D	M3x8-D5	CL-12	XNS-0229	S2 S2.5

* Limited Supply

See pages 187-188 for spare parts. Replacement inserts shown on pages 208-210.

DCLNR TOP CLAMP STYLE INDEXABLE TOOL HOLDERS
-5° LEAD ANGLE • RIGHT HAND

DCLNR

- **Superior rigidity & stability** – Robust clamping design minimizes vibration and deflection, delivering smoother surface finishes and extended tool life.
- Top clamp style indexable turning tool holder for external turning and facing.
- Right-hand cutting direction with -5° lead angle for stable cutting performance.
- Designed for easy insert changes and reduced machine downtime.
- Accepts standard CNMG 80° diamond indexable inserts (not included).
- Insert indexing allows multiple cutting edges without regrinding.
- Rigid steel construction reduces vibration and improves surface finish.
- Secure top clamp design ensures excellent insert retention.
- Ideal for CNC and manual lathe applications.



RIGHT HAND

INSERTS NOT INCLUDED



Tool Holder Style	(mm) Shank	OAL	Offset	Insert Style	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Torx Key	Hex Key	Item#
DCLNR-2020-K12	20	125	25	**CN..-1204**	**2106-4005**	**2106-2010**	**2106-3015**	**2106-1005**	**2106-1202**	T15	S3	**2016-1122**
DCLNR-2525-M12	25	150	32	**CN..-1204**	**2106-4005**	**2106-2010**	**2106-3015**	**2106-1005**	**2106-1202**	T15	S3	**2016-1162**

DCLNR TOP & HOLE CLAMP STYLE TOOL HOLDERS
-5° LEAD ANGLE • RIGHT HAND

DCLNR

- 0° Relief

Limited Supply!

RIGHT HAND



INSERTS NOT INCLUDED

See pages 187-188 for spare parts. Replacement inserts shown on pages 195-196.

Tool Holder Style	(Inch) Shank	OAL	Offset	Insert Style	Shim	Lock Pin	Clamp	Clamp Screw	Item#
20-5E	1-1/4	7	1-1/2	CN..-54.	C1604B	THT0907	DLM4	LE06	**2017-0205**

DDJNR TOP & HOLE CLAMP STYLE TOOL HOLDERS
-3° LEAD ANGLE • RIGHT HAND

DDJNR



- 0° Relief

INSERTS NOT INCLUDED **RIGHT HAND** *Limited Supply!*

See pages 187-188 for spare parts. Replacement inserts shown on pages 197-198.

Tool Holder Style	(Inch) Shank	OAL	Offset	Insert Style	Shim	Lock Pin	Clamp	Clamp Screw	Item#
20-4E	1-1/4	7	1-1/2	DNM.-43.	D1504B	THT0706	DLM4	LE06	**2018-0204**

DTGNR TOP & HOLE CLAMP STYLE TOOL HOLDERS
0° LEAD ANGLE • RIGHT HAND

DTGNR



- 0° Relief

RIGHT HAND *INSERTS NOT INCLUDED*

See pages 187-188 for spare parts. Replacement inserts shown on pages 208-210.

Tool Holder Style	(Inch) Shank	OAL	Offset	Insert Style	Shim	Lock Pin	Clamp	Clamp Screw	Item#
16-3D	1	6	1-1/4	TNM.-32.	T1603B	THT0505	DLM3	LE05	**2019-0163**
16-4D	1	6	1-1/4	TNM.-43.	T2203B	THT0706	DLM4	LE06	**2019-0164**
20-4E	1-1/4	7	1-1/2	TNM.-43.	T2203B	THT0706	DLM4	LE06	**2019-0204**

DTJNR TOP & HOLE CLAMP STYLE TOOL HOLDERS
-3° LEAD ANGLE • RIGHT HAND

DTJNR



- 0° Relief

Limited Supply! **RIGHT HAND** *INSERTS NOT INCLUDED*

See pages 187-188 for spare parts. Replacement inserts shown on pages 208-210.

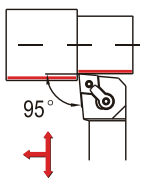
Tool Holder Style	(Inch) Shank	OAL	Offset	Insert Style	Shim	Lock Pin	Clamp	Clamp Screw	Item#
16-3D	1	6	1-1/4	TNM.-32.	T1603B	THT0505	DLM3	LE05	**2020-0163**
16-4D	1	6	1-1/4	TNM.-43.	T2203B	THT0706	DLM4	LE06	**2020-0164**
20-4E	1-1/4	7	1-1/2	TNM.-43.	T2203B	THT0706	DLM4	LE06	**2020-0204**

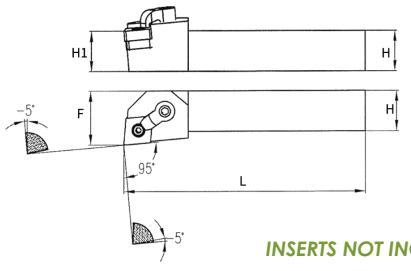
HARLINGEN® MCLNR PIN & CLAMP STYLE TOOL HOLDERS
-5° LEAD ANGLE • RIGHT HAND

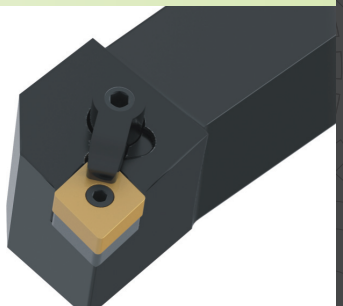
MCLNR

- 0° Relief
- For turning and facing.

Up to 30% Higher Productivity & Profitability !







INSERTS NOT INCLUDED

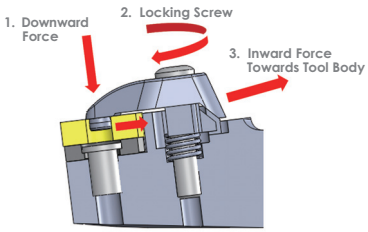
See pages 187-188 for spare parts. Replacement inserts shown on pages 195-196.

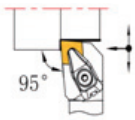
Item#	Industry Ref. No.	Dimensions h=h1	Shank Dia. b	Offset F	OAL L	Insert	Shim	Lock Pin	Clamp	Clamp Screw	Torx Wrench
9710-0109	MCLNR12-4B	3/4"	3/4"	1"	4-1/2"	CNMG4...	ICSN-433	NL-46	CK-20	STC-20	S3/32 S1/8
9710-0104	MCLNR16-4D	1"	1"	1-1/4"	6"	CNMG4...	ICSN-433	NL-46	CK-20	STC-20	S3/32 S1/8

MCLNR TOOL HOLDERS - RIGID CLAMP DESIGN
-5° LEAD ANGLE • RIGHT HAND

TMCLNR

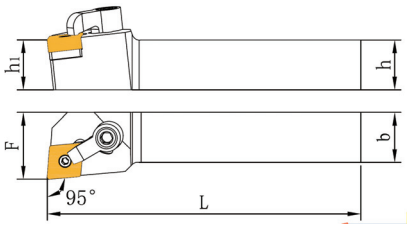
- 0° Relief







INSERTS NOT INCLUDED



See page 176 for advantages.

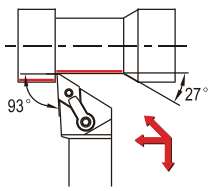
See pages 187-188 for spare parts. Replacement inserts shown on pages 195-196.

Item #	Industry Ref. No.	Dimensions h=h1	Shank Dia. b	Offset F	OAL L	Insert	Shim	Shim Screw	Clamp	Clamp Screw	Spring	Key
2011-1122	TMCLNR12-4B	3/4"	3/4"	1.00"	4.5"	CN..43..	C0903B	LYM0610	TP-2	MS0523	YB6512	S3
2011-1162	TMCLNR16-4D	1"	1"	1.25"	6"	CN..43..	C0903B	LYM0610	TP-2	MS0523	YB6512	S3
2011-1167	TMCLNR16-5D	1"	1"	1.25"	6"	CN..54..	C1604B	LYM0810	TP-4	MS0523	YB6512	S3
2011-1202	TMCLNR20-5E	1-1/4"	1-1/4"	1.50"	7"	CN..54..	C1604B	LYM0810	TP-4	MS0523	YB6512	S4

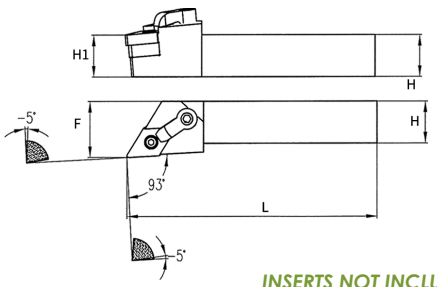
HARLINGEN® MDJNR PIN & CLAMP STYLE TOOL HOLDERS
3° LEAD ANGLE • RIGHT HAND

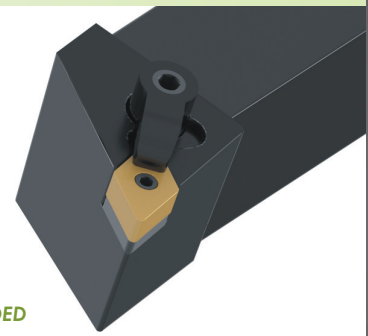
MDJNR

- 0° Relief
- For turning and profiling.



Up to 30% Higher Productivity & Profitability !





INSERTS NOT INCLUDED

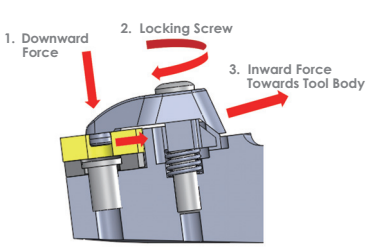
See pages 187-188 for spare parts. Replacement inserts shown on pages 197-198.

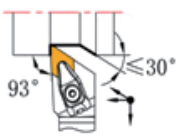
Item#	Industry Ref. No.	Dimensions h=h1	Shank Dia. b	Offset F	OAL L	Insert	Shim	Lock Pin	Clamp	Clamp Screw	Torx Wrench
9710-0110	MDJNR12-4B	3/4"	3/4"	1"	4-1/2"	DN..43..	ISDN-443	NL-46L	CK-23	STC-20	S3/32 S1/8

MDJN TOOL HOLDERS - RIGID CLAMP DESIGN
3° LEAD ANGLE • RIGHT HAND

TMDJNR

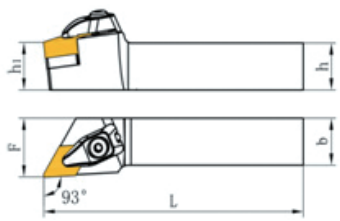
- 0° Relief
- For profiling and facing.







INSERTS NOT INCLUDED



See page 176 for advantages.

See pages 187-188 for spare parts. Replacement inserts shown on pages 197-198.

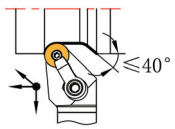
Item#	Industry Ref. No.	Dimensions h=h1	Shank Dia. b	Offset F	OAL L	Insert	Shim	Shim Screw	Clamp	Clamp Screw	Spring	Key
2012-1122	TMDJNR12-4B	3/4"	3/4"	1"	4-1/2"	DN..43.	D1504B	LYM0610	TP-2	MS0523	YB6512	S3
2012-1162	TMDJNR16-4D	1"	1"	1-1/4"	6"	DN..43.	D1504B	LYM0610	TP-2	MS0523	YB6512	S3

MRGNR PIN & CLAMP STYLE TOOL HOLDERS
0° LEAD ANGLE • RIGHT HAND

MRGNR

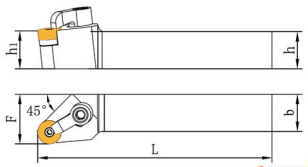
- 0° Relief
- For turning and profiling.

Limited Supply!





INSERTS NOT INCLUDED



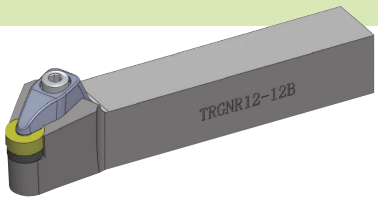
See pages 187-188 for spare parts. Replacement inserts shown on page 200.

Item#	Industry Ref. No.	Dimensions h=h1	Shank Dia. b	Offset F	OAL L	Insert	Shim	Lock Pin	Clamp	Clamp Screw	Key
2026-0123	MRGNR12-10B	3/4"	3/4"	1"	4-1/2"	RN..10T3MO	R1003B	NL-0413	CL-12	XNS-0829	S2 S4
2026-0163	MRGNR16-12D	1"	1"	1-1/4"	6"	RN..32..	R1203B	NL-0617	CL-12	XNS-0829	S2.5 S4

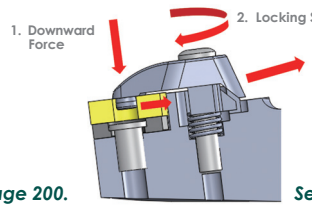
MRGNR PIN & CLAMP STYLE TOOL HOLDERS - RIGID CLAMP DESIGN
0° LEAD ANGLE • RIGHT HAND

TMRGNR

- 0° Relief



INSERTS NOT INCLUDED



* Limited Supply

See pages 187-188 for spare parts. Replacement inserts shown on page 200.

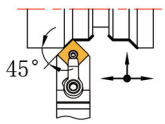
See page 176 for advantages.

Item#	Industry Ref. No.	Dimensions h=h1	Shank Dia. b	Offset F	OAL L	Insert	Shim	Shim Screw	Clamp	Clamp Screw	Spring	Key
2026-0120*	TMRGNR12-10B	3/4"	3/4"	1"	4-1/2"	RN..10T3MO	R1003B	LYM0508	TP-1	MS0422	YB5512	S3
2026-0122*	TMRGNR12-12B	3/4"	3/4"	1"	4-1/2"	RN..1204MO	R1203B	LYM0610	TP-2	MS0523	YB6512	S3
2026-0161	TMRGNR16-10D	1"	1"	1-1/4"	6"	RN..1204MO	R1203B	LYM0610	TP-2	MS0523	YB6512	S3

MSDNN PIN & CLAMP STYLE TOOL HOLDERS
45° LEAD ANGLE • NEUTRAL

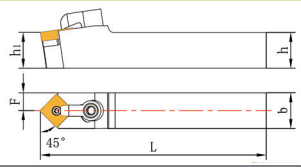
MSDNN

- 0° Relief





INSERTS NOT INCLUDED



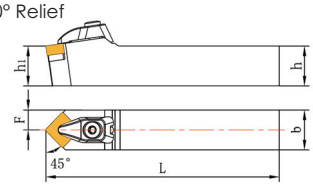
See pages 187-188 for spare parts. Replacement inserts shown on pages 203-204.

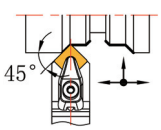
Item#	Industry Ref. No.	Dimensions h=h1	Shank Dia. b	Offset F	OAL L	Insert	Shim	Lock Pin	Clamp	Clamp Screw	Key
2027-0083	MSDNN08-3A	1/2"	1/2"	.25"	4"	SN..32..	S0903B	NL-0412	CL-6	XNS-0520	S2, S2.5

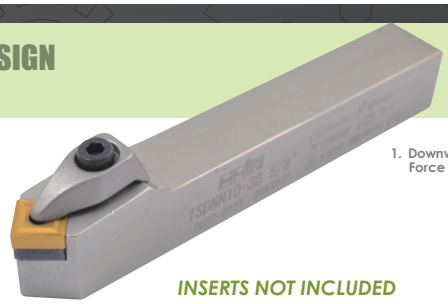
MSDNN TOOL HOLDERS - RIGID CLAMP DESIGN
45° LEAD ANGLE • NEUTRAL HAND

TMSDNN

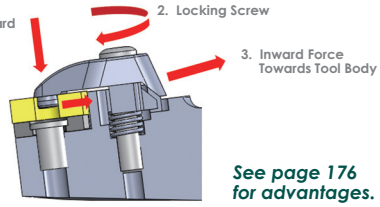
- 0° Relief







INSERTS NOT INCLUDED



See page 176 for advantages.

See pages 187-188 for spare parts. Replacement inserts shown on pages 203-204.

Item#	Industry Ref. No.	Dimensions h=h1	Shank Dia. b	Offset F	OAL L	Insert	Shim	Shim Screw	Clamp	Clamp Screw	Spring	Key
2027-0101	TMSDNN10-3B	5/8"	5/8"	0.31"	4-1/2"	SN..32..	S0903B	LYM0508	TP-1	MS0422	YB5512	S3
2027-0121	TMSDNN12-4B	3/4"	3/4"	0.38"	4-1/2"	SN..43..	S1203B	LYM0610	TP-2	MS0523	YB6512	S3
2027-0161	TMSDNN16-4D	1"	1"	0.5"	6"	SN..43..	S1203B	LYM0610	TP-2	MS0523	YB6512	S3

MSKNR INDEXABLE TOOL HOLDERS- CLAMP ON
15° LEAD ANGLE • RIGHT HAND

MSKNR



- 0° Relief

Limited Supply!

INSERTS NOT INCLUDED

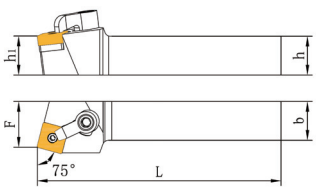
See pages 187-188 for spare parts. Replacement inserts shown on pages 202-204.

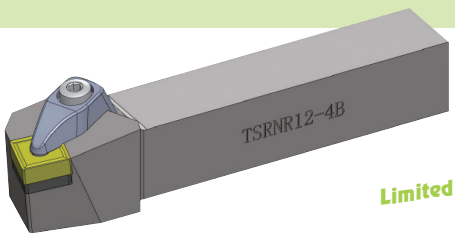
Tool Holder Style	Shank	(Inch) OAL	Offset	Insert Style	Shim	Lock Pin	Clamp	Clamp Screw	Item#
16-4D	1	6	1-1/4	SN..-43.	S1203B	NL-0617	CL-12	XNS-0829	**2021-0164**
16-5D	1	6	1-1/4	SN..-54.	S1504B	NL-0822	CL-12	XNS-0829	**2021-0165**

MSRNR TOOL HOLDERS - RIGID CLAMP DESIGN
15° LEAD ANGLE • RIGHT HAND

TMSRNR

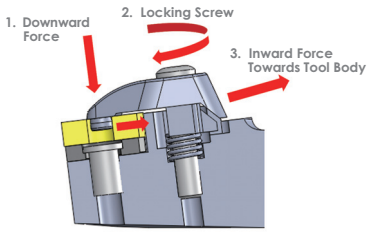
- 0° Relief





Limited Supply!

INSERTS NOT INCLUDED



See pages 187-188 for spare parts. Replacement inserts shown on pages 202-204.

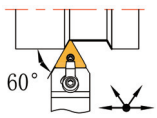
See page 176 for advantages.

Item#	Industry Ref. No.	Dimensions h=h1	Shank Dia. b	Offset F	OAL L	Insert	Shim	Shim Screw	Clamp	Clamp Screw	Spring	Key
2028-0121	TMSRNR12-3B	3/4"	3/4"	0.88"	4-1/2"	SN__-32_	S0903B	LYM0508	TP-1	MS0422	YB5512	S3

MTENN PIN & CLAMP STYLE TOOL HOLDERS
60° LEAD ANGLE • NEUTRAL

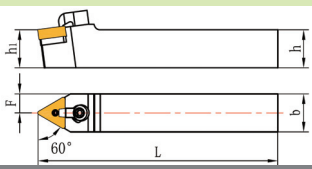
MTENN

- 0° Relief





INSERTS NOT INCLUDED



Item#	Industry Ref. No.	Dimensions h=h1	Shank Dia. b	Offset F	OAL L	Insert	Shim	Lock Pin	Clamp	Clamp Screw	Key
2029-0082	MTENN08-2A	1/2"	1/2"	0.25"	4"	TN--22-	----	M-ZX0410	CL-6	XNS-0520	S2 S2.5
2029-0124	MTENN12-4B	3/4"	3/4"	0.38"	4-1/2"	TN--43-	T2203B	NL-0617	CL-12	XNS-0829	S2.5 S4
2029-0205*	MTENN20-5E	1-1/4"	1-1/4"	0.63"	7"	TN--54-	T2704B	NL-0822	CL-12	XNS-0829	S3 S4

See pages 187-188 for spare parts. Replacement inserts shown on pages 206-208.

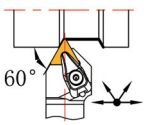
* Limited Supply

MTENN TOOL HOLDERS - RIGID CLAMP DESIGN
60° LEAD ANGLE • NEUTRAL

TMTENN

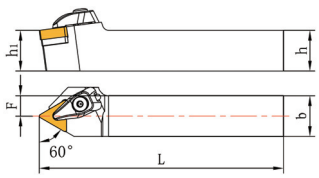
- 0° Relief

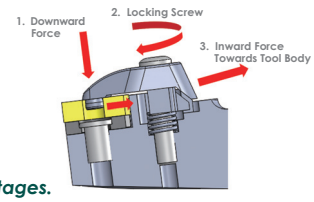
Limited Supply!





INSERTS NOT INCLUDED





See pages 187-188 for spare parts. Replacement inserts shown on pages 206-208.

See page 176 for advantages.

Item#	Industry Ref. No.	Dimensions h=h1	Shank Dia. b	Offset F	OAL L	Insert	Shim	Shim Screw	Clamp	Clamp Screw	Spring	Key
2029-0120	TTENN12E-3B	3/4"	3/4"	0.45"	4-1/2"	TN--33-	T1603B	LYM0508	TP-1	MS0422	YB5512	S3
2029-0161	TTENN16E-4D	1"	1"	0.58"	6"	TN--43-	T2203B	LYM0610	TP-2	MS0523	YB6512	S3

MTFNR PIN & CLAMP TOOL HOLDERS
0° LEAD ANGLE • RIGHT HAND

MTFNR



- 0° Relief

INSERTS NOT INCLUDED

Limited Supply!

See pages 187-188 for spare parts. Replacement inserts shown on pages 206-208.

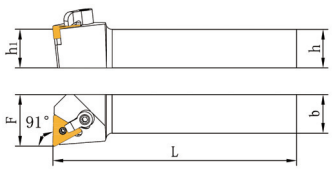
Tool Holder Style	(Inch) Shank	OAL	Offset	Insert Style	Shim	Lock Pin	Clamp	Clamp Screw	RH Item#
10-2B	5/8	4-1/2	5/8	TN_ _-22_	----	NL-0409	CL-6	XNS-0520	**2022-0102**
10-3B	5/8	4-1/2	5/8	TN_ _-33_	T1603B	NL-0414	CL-6	XNS-0520	**2022-0103**
12-3C	3/4	5	3/4	TN_ _-33_	T1603B	NL-0414	CL-6	XNS-0520	**2022-0123**
16-3D	1	6	1-1/4	TN_ _-33_	T1603B	NL-0414	CL-6	XNS-0520	**2022-0163**
16-4D	1	6	1-1/4	TN_ _-43_	T2203B	NL-0617	CL-12	XNS-0829	**2022-0164**
20-4E	1-1/4	7	1-1/2	TN_ _-43_	T2203B	NL-0617	CL-12	XNS-0829	**2022-0204**

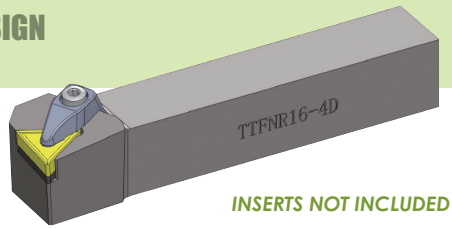
MTFNR TOOL HOLDERS - RIGID CLAMP DESIGN
0° LEAD ANGLE • RIGHT HAND

TMTFNR

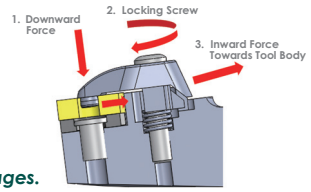
- 0° Relief

Limited Supply!





INSERTS NOT INCLUDED



See pages 187-188 for spare parts. Replacement inserts shown on pages 206-208.

See page 176 for advantages.

Item#	Industry Ref. No.	Dimensions h=h1	Shank Dia. b	Offset F	OAL L	Insert	Shim	Shim Screw	Clamp	Clamp Screw	Spring	Key
2022-0100	TMTFNR 10-3B	5/8"	5/8"	0.75"	4-1/2"	TN_ _-33_	T1603B	LYM0508	TP-1	MS0422	YB5512	S3

MTGNR PIN & CLAMP STYLE TURNING TOOL HOLDERS
0° LEAD ANGLE • RIGHT HAND

MTGNR



Limited Supply!

INSERTS NOT INCLUDED

- 0° Relief
- For turning to square shoulders.

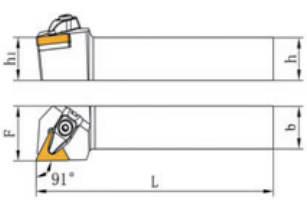
Tool Holder Style	Shank	(Inch) OAL	Offset	Insert Style	Shim	Lock Pin	Clamp	Clamp Screw	Item#
8-2A	1/2	4	0.630	TNMG-22.	-------	M-7X0418	CL-6	XNS-0520	**2013-1082**
10-2B	5/8	4-1/2	0.750	TNMG-22.	-------	M-7X0440	CL-6	XNS-0520	**2013-1102**
85-4E	1-1/4	7	1-1/4	TNMG-43.	T2203B	NL-0617	CL-12	XNS-0829	**2013-1854**
20-4E	1-1/4	7"	1-1/2	TNMG-43.	T2203B	NL-0617	CL-12	XNS-0829	**2013-1204**

See pages 187-188 for spare parts. Replacement inserts shown on pages 206-207.

MTGNR TOOL HOLDERS - RIGID CLAMP DESIGN
0° LEAD ANGLE • RIGHT HAND

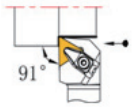
TMTGNR

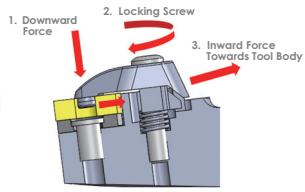
- 0° Relief
- For turning to square shoulders.





INSERTS NOT INCLUDED





See pages 187-188 for spare parts. Replacement inserts shown on pages 206-208.

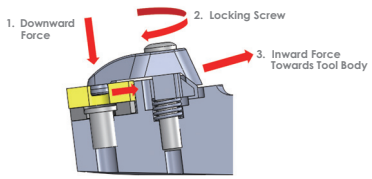
See page 176 for advantages.

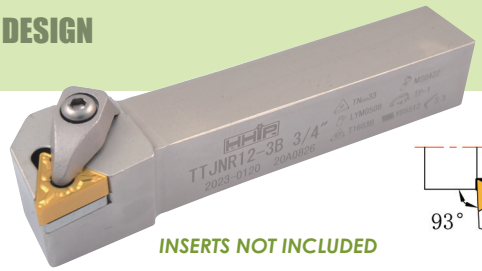
Item#	Industry Ref. No.	Dimensions h=h1	Shank Dia. b	Offset F	OAL L	Insert	Shim	Shim Screw	Clamp	Clamp Screw	Spring	Key
2013-1101	TMTGNR10-3B	5/8"	5/8"	1"	4-1/2"	TN...33.	T1603B	LYM0508	TP-1	MS0422	YB5512	S3
2013-1121	TMTGNR12-3B	3/4"	3/4"	1"	4-1/2"	TN...33.	T1603B	LYM0508	TP-1	MS0422	YB5512	S3
2013-1160	TMTGNR16-3D	1"	1"	1-1/4"	6"	TN...33.	T1603B	LYM0508	TP-1	MS0422	YB5512	S3
2013-1161	TMTGNR16-4D	1"	1"	1-1/4"	6"	TN...43.	T2203B	LYM0610	TP-2	MS0523	YB6512	S3

MTJNR TOOL HOLDERS - RIGID CLAMP DESIGN
-3° LEAD ANGLE • RIGHT HAND

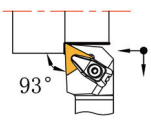
TMTJNR

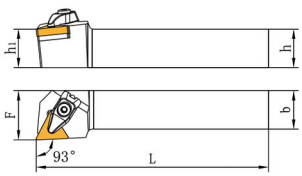
- 0° Relief





INSERTS NOT INCLUDED





* Limited Supply

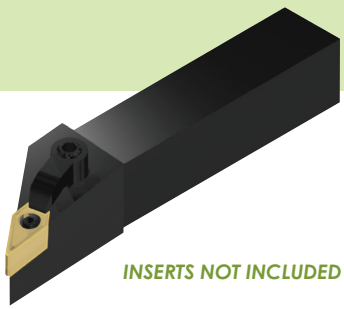
See page 176 for advantages.

See pages 187-188 for spare parts. Replacement inserts shown on pages 206-208.

Item#	Industry Ref. No.	Dimensions h=h1	Shank Dia. b	Offset F	OAL L	Insert	Shim	Shim Screw	Clamp	Clamp Screw	Spring	Key
2023-0120	TMTJNR12-3B	3/4"	3/4"	1"	4-1/2"	TN--33-	T1603B	LYM0508	TP-1	MS0422	YB5512	S3
2023-0160*	TMTJNR16-3D	1"	1"	1-1/4"	6"	TN--33-	T1603B	LYM0508	TP-1	MS0422	YB5512	S3
2023-0161	TMTJNR16-4D	1"	1"	1-1/4"	6"	TN--43-	T2203B	LYM0610	TP-2	MS0523	YB6512	S3

MVJNR PIN & CLAMP TOOL HOLDERS
-3° LEAD ANGLE • RIGHT HAND

MVJNR



INSERTS NOT INCLUDED

- 0° Relief
- For turning and profiling.

Tool Holder Style	(Inch) Shank	OAL	Offset	Insert Style	Shim	Lock Pin	Clamp	Clamp Screw	Item#
16-4D	1	6	1-1/4	VNMG-43.	V2203B	NL-0617	CL-30	XNS-0829	**2014-1164**
20-4E	1-1/4	7	1-1/2	VNMG-43.	V2203B	NL-0617	CL-30	XNS-0829	**2014-1204***

See pages 187-188 for spare parts. Replacement inserts shown on page 211.

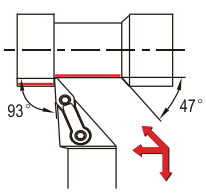
* Limited Supply

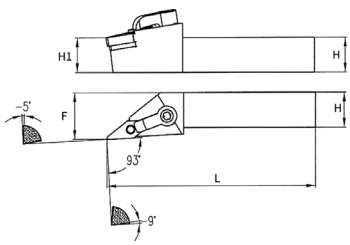
HARLINGEN® MVJNR PIN & CLAMP TOOL HOLDERS
-3° LEAD ANGLE • RIGHT HAND

MVJNR

- 3-Degree Lead Angle for Turning or Profiling
- USE VNMG332 INSERT

Up to 30% Higher Productivity & Profitability !







INSERTS NOT INCLUDED

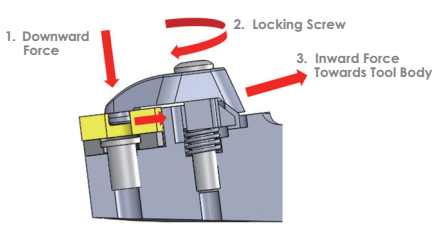
See pages 187-188 for spare parts. Replacement inserts shown on page 211.

Item#	Industry Ref. No.	Dimensions h=h1	Shank Dia. b	Offset F	OAL L	Insert	Shim	Lock Pin	Clamp	Clamp Screw	Torx Wrench
9710-0195	MVJNR12-3B	3/4"	3/4"	1"	4-1/2"	VN--33-	IVSN-322	NL-34L	CK-43	STC-4	S5/64 S5/32

MVJNR TOOL HOLDERS - RIGID CLAMP DESIGN
-3° LEAD ANGLE • RIGHT HAND

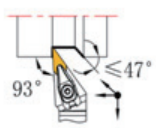
TMVJNR

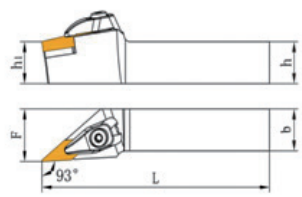
- 0° Relief





INSERTS NOT INCLUDED





See page 176 for advantages.

See pages 187-188 for spare parts. Replacement inserts shown on page 211.

Item #	Industry Ref. No.	Dimensions h=h1	Shank Dia. b	Offset F	OAL L	Insert	Shim	Shim Screw	Clamp	Clamp Screw	Spring	Key
2014-1120	TMVJNR12-3B	3/4"	3/4"	1.00"	4-1/2"	VN--33-	V1603B	LYM0508	TP-3	MS0422	YB5512	S3
2014-1160	TMVJNR16-3D	1"	1"	1.25"	6"	VN--33-	V1603B	LYM0508	TP-3	MS0422	YB5512	S3

MVVNN PIN & CLAMP TOOL HOLDERS
-17.5° LEAD ANGLE • NEUTRAL HAND

MVVNN



- 0° Relief

Limited Supply!

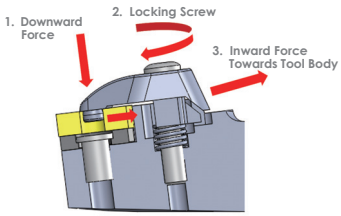
INSERTS NOT INCLUDED

See pages 187-188 for spare parts. Replacement inserts shown on page 211.

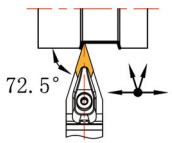
Tool Holder Style	(Inch) Shank	OAL	Insert Style	Shim	Lock Pin	Clamp	Clamp Screw	Item#
16-4D	1	6	VNMG-43.	V2203B	NL-0617	CL-30	XNS-0829	**2030-0164**

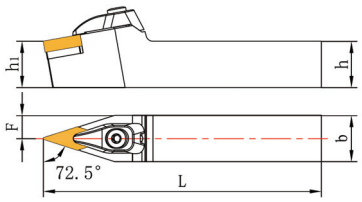
MVVNN TOOL HOLDERS - RIGID CLAMP DESIGN
17.5° LEAD ANGLE • NEUTRAL HAND

TMVVNN









INSERTS NOT INCLUDED

See page 176 for advantages.

See pages 187-188 for spare parts. Replacement inserts shown on page 211.

Item#	Industry Ref. No.	Dimensions h=h1	Shank Dia. b	Offset F	OAL L	Insert	Shim	Shim Screw	Clamp	Clamp Screw	Spring	Key
2030-0120	TMVVNN12-3B	3/4"	3/4"	0.38"	4-1/2"	VN..33.	V1603B	LYM0508	TP-3	MS0422	YB5512	S3
2030-0160	TMVVNN16-3D	1"	1"	0.50"	6"	VN..33.	V1603B	LYM0508	TP-3	MS0422	YB5512	S3

MWLNR INDEXABLE TOOL HOLDERS- CLAMP ON
-5° LEAD ANGLE • RIGHT HAND

MWLNR



Limited Supply!

INSERTS NOT INCLUDED

See pages 187-188 for spare parts. Replacement inserts shown on page 212.

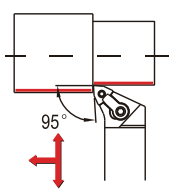
Tool Holder Style	(Inch) Shank	OAL	Insert Style	Shim	Lock Pin	Clamp	Clamp Screw	Item#
16-3C	1	5	WNM.-32.	W0603B	NL-0414	CL-6	XNS-0520	**2025-0162**
16-3D	1	6	WNM.-32.	W0603B	NL-0414	CL-6	XNS-0520	**2025-0163**

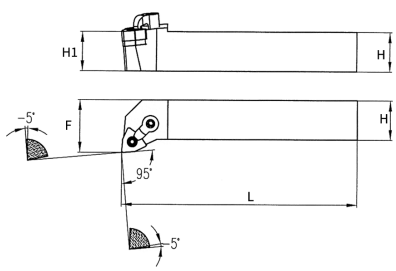
HARLINGEN® MWLNR PIN & CLAMP TOOL HOLDERS
-5° LEAD ANGLE • RIGHT HAND

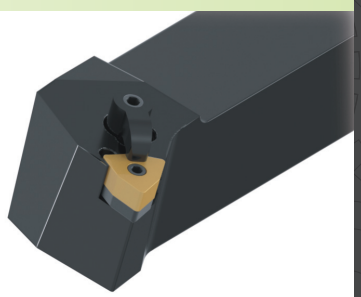
MWLNR

- 5-Degree Lead Angle for Turning or Profiling
- USE WNMG332 INSERT

Up to 30% Higher Productivity & Profitability !







INSERTS NOT INCLUDED

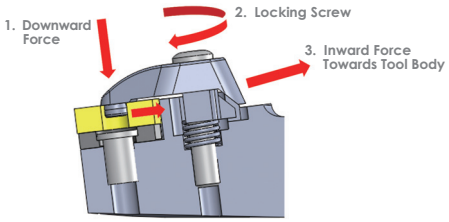
See pages 187-188 for spare parts. Replacement inserts shown on page 212.

Item#	Industry Ref. No.	Dimensions h=h1	Shank Dia. b	Offset F	OAL L	Insert	Shim	Lock Pin	Clamp	Clamp Screw	Torx Wrench
9710-0205	MWLNR12-3B	3/4"	3/4"	1"	4-1/2"	WN..33.	IWSN-322	NL-34L	CK-6	STC-5	S5/64 S5/32

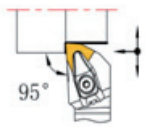
INDEXABLE TURNING TOOL HOLDERS

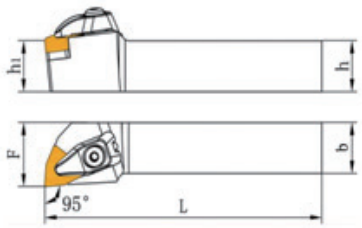
MWLNR TOOL HOLDERS - RIGID CLAMP DESIGN
-5° LEAD ANGLE • RIGHT HAND

TMWLNR









See page 176 for advantages.

INSERTS NOT INCLUDED

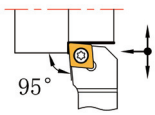
See pages 187-188 for spare parts. Replacement inserts shown on page 212.

Item #	Industry Ref. No.	Dimensions h=h1	Shank Dia. b	Offset F	OAL L	Insert	Shim	Shim Screw	Clamp	Clamp Screw	Spring	Key
2025-0100	TMWLNR10-3B	5/8"	5/8"	0.75"	4-1/2"	WN...33..	W0603B	LYM0508	TP-1	MS0422	YB5512	S3
2025-0121	TMWLNR12-4B	3/4"	3/4"	1"	4-1/2"	WN...43..	W0803B	LYM0610	TP-2	MS0523	YB6512	S3
2025-0166	TMWLNR16-4D	1"	1"	1-1/4"	6"	WN...43..	W0803B	LYM0610	TP-2	MS0523	YB6512	S3

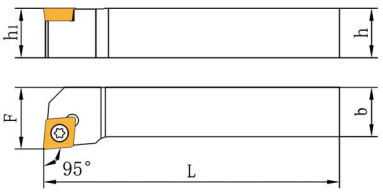
SCLCR SCREW TYPE TOOL HOLDERS
-5° LEAD ANGLE • RIGHT HAND

SCLCR

- 7° Relief







INSERTS NOT INCLUDED

See pages 187-188 for spare parts. Replacement inserts shown on pages 194-196.

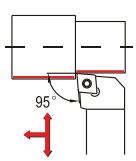
Item#	Industry Ref. No.	Dimensions h=h1	Shank Dia. b	Offset F	OAL L	Insert	Clamp Screw	Key
2039-0083	SCLCR8-3A	1/2"	1/2"	0.63"	4"	CC...33.5..	M4 x 10	T15
2039-0103	SCLCR10-3B	5/8"	5/8"	0.75"	4-1/2"	CC...33.5..	M4 x 10	T15
2039-0123	SCLCR12-3B	3/4"	3/4"	1"	4-1/2"	CC...33.5..	M4 x 10	T15
2039-0164	SCLCR16-4D	1"	1"	1-1/4"	6"	CC...43..	M5 x 12	T20

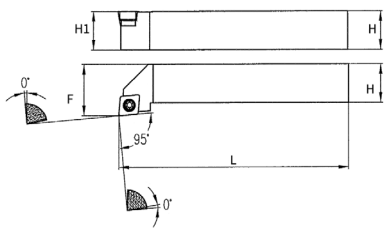
HARLINGEN® SCLCR SCREW TYPE TOOL HOLDERS
-5° LEAD ANGLE • RIGHT HAND

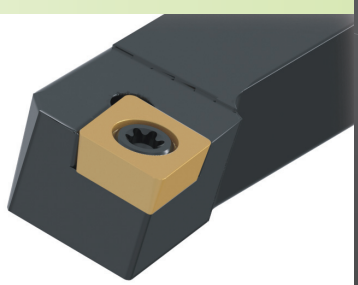
SCLCR

- 5-Degree Lead Angle for Turning, Profiling or facing
- USE CCMT32.52 INSERT

Up to 30% Higher Productivity & Profitability !







See pages 187-188 for spare parts. Replacement inserts shown on page 194.

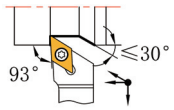
INSERTS NOT INCLUDED

Item#	Industry Ref. No.	Dimensions h=h1	Shank Dia. b	Offset F	OAL L	Insert	Shim	Shim Screw	Insert Screw	Torx Wrench
9710-0018	SCLCR12-3B	3/4"	3/4"	1"	4-1/2"	CC...32..	SKCP-343	SRS-3	MS-1156	S3.5 T15

SDJCR SCREW TYPE TOOL HOLDERS
-3° LEAD ANGLE • RIGHT HAND

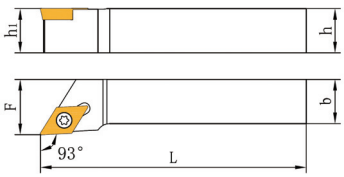
SDJCR

- 7° Relief





INSERTS NOT INCLUDED



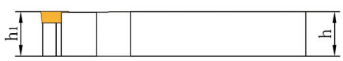
See pages 187-188 for spare parts. Replacement inserts shown on page 197.

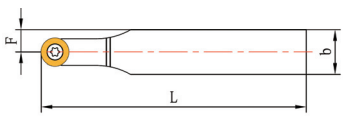
Item#	Industry Ref. No.	Dimensions h=h1	Shank Dia. b	Offset F	OAL L	Insert	Clamp Screw	Key
2033-0062	SDJCR06-2J	3/8"	3/8"	0.50"	3-1/2"	DC..21.5.	M2.5 x 6	T8
2033-0083	SDJCR08-3A	1/2"	1/2"	0.63"	4"	DC..32.5.	M4 x 10	T15
2033-0103	SDJCR10-3B	5/8"	5/8"	0.75"	4-1/2"	DC..32.5.	M4 x 10	T15
2033-0123	SDJCR12-3B	3/4"	3/4"	1"	4-1/2"	DC..32.5.	M4 x 10	T15

SRDCN SCREW TYPE TOOL HOLDERS
0° LEAD ANGLE • NEUTRAL HAND

SRDCN

- 7° Relief



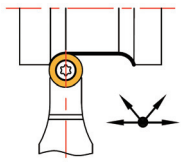




INSERTS NOT INCLUDED

See pages 187-188 for spare parts. Replacement inserts shown on page 199.

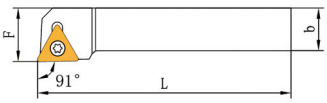
Item#	Industry Ref. No.	Dimensions h=h1	Shank Dia. b	Offset F	OAL L	Insert	Clamp Screw	Key
2037-0106	SRDCN06-6A	3/8"	3/8"	3/16"	4"	RC..0602	M2.5 x 6	T8
2037-1210	SRDCN08-10A	1/2"	1/2"	1/4"	4"	RC..1013MD	M3 x 8	T8
2037-1612	SRDCN10-10B	5/8"	5/8"	.31"	4-1/2"	RC..1013MD	M4 x 10	T15



STGCR SCREW TYPE TOOL HOLDERS
0° LEAD ANGLE • RIGHT HAND

STGCR



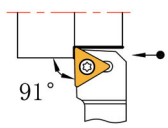




INSERTS NOT INCLUDED

* Limited Supply

Item#	Industry Ref. No.	Dimensions h=h1	Shank Dia. b	Offset F	OAL L	Insert	Clamp Screw	Key
2036-0062	STGCR06-2J	3/8"	3/8"	0.50"	2-1/2"	TC..21.5.	M2.5 x 6	T8
2036-0082*	STGCR08-2J	1/2"	1/2"	0.63"	3-1/2"	TC..21.5.	M2.5 x 6	T8
2036-0103*	STGCR10-3B	5/8"	5/8"	0.75"	4-1/2"	TC..32.5.	M4 x 10	T15



See pages 187-188 for spare parts.
Replacement inserts shown on page 215.

SVJBR SCREW TYPE TOOL HOLDERS
-3° LEAD ANGLE • RIGHT HAND

SVJBR

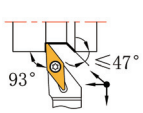
- 5° Relief

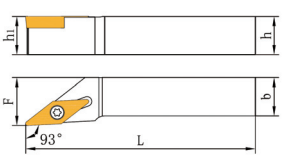
* Limited Supply

INSERTS NOT INCLUDED



Item#	Industry Ref. No.	Dimensions h=h1	Shank Dia. b	Offset F	OAL L	Insert	Clamp Screw	Key
2034-0062	SVJBR06-2J	3/8"	3/8"	0.50"	3-1/2"	VB..21.5.	M2.5 x 6	T8
2034-0082	SVJBR08-2A	1/2"	1/2"	0.63"	4"	VB..21.5.	M2.5 x 6	T8
2034-0083*	SVJBR08-3A	1/2"	1/2"	0.63"	4"	VB..33.	M4 x 10	T15
2034-0102	SVJBR10-2B	5/8"	5/8"	0.75"	4"	VB..21.5.	M4 x 10	T15
2034-0123	SVJBR12-3B	3/4"	3/4"	1"	4-1/2"	VB..33.	M4 x 10	T15
2034-0163	SVJBR16-3D	1"	1"	1-1/4"	6"	VB..33.	M4 x 10	T15

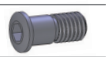




See pages 187-188 for spare parts.
Replacement inserts shown on page 210.

SPARE PARTS FOR INDEXABLE TOOLS

SCREWS FOR INDEXABLE TOOLING
METRIC THREAD

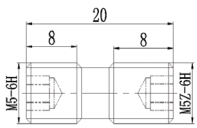
Item#	Style	Size	Wrench Used	
2100-0060	M2 x 4	M2 x 4	T6	
2100-0061	M2 x 5	M2 x 5	T6	
2100-0065	M2.2 x 6	M2.2 x 6	T6	
2100-0067	M2.5 x 5	M2.5 x 5	T8	
2100-0070	M2.5 x 6	M2.5 x 6	T8	
2100-0066	M2.5 x 7	M2.5 x 7	T8	
2100-0072	M2.5 x 8	M2.5 x 8	T8	
2100-0063	M3 x 7	M3 x 7	T10	
2100-0003	M3.0 x 8	M3.0 x 8	T10	
2100-0073	M3.5 x 8	M3.5 x 8	T15	
2100-1080	M3.5 x 10	M3.5 x 10	T15	
2100-0083	M3.5 x 11	M3.5 x 11	T15	
2100-0084	M3.5 x 12	M3.5 x 12	T15	
2100-0069	M4.0 x 8	M4.0 x 8	T15	
2100-0071	M4.0 x 9	M4.0 x 9	T15	
2100-0074	M4.0 x 10	M4.0 x 10	T15	
2100-0064	M4.0 x 11	M4.0 x 11	T15	
2100-0075	M5.0 x 10	M5.0 x 10	T20	
2100-0076	M5.0 x 12	M5.0 x 12	T20	
2100-0077	M5.0 x 14	M5.0 x 14	T20	
2100-1078	M5.0 x 16	M5.0 x 16	T20	
2100-0088*	M5.0 x 18	M5.0 x 18	T20	
2100-0026	M6.0 x 20	M6.0 x 20	S4	
2100-0078	CTFP-M5	M5.0 x 13	S3	
2100-0027	DLS5 M6 x 26	M6 x 26	S4	
2100-0082	GB70-85 M4 x 12	M4 x 16	S3	
2100-0087	GB70-85 M5 x 14	M5 x 19	S4	
2100-0026	GB/T70.2 M6 x 20	M6 x 25	S5	
2100-1070	I86M 4 x 7	M4X7	T15	
2100-0071	I86M 4 x 9	M4X9	T15	
2100-0089	M3X6.5 D5	M3X6.5	S2	

* Limited Supply

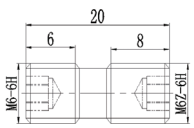
Item#	Style	Size	Wrench Used	
2100-4301	LYM0308			
2100-4300	LYM0508			
2100-4303	LYM0610			
2100-4305	LYM0810			
2100-0005	LE05	M5 x 23	S3	
2100-0007	LE06	M6 x 26	S4	
2100-0089	M3x6.5-D5	M3 x 6.5	S2	
2100-0070	MLD-M25	M2.5 x 6	T8	
2100-0084	MLD-M35	M3.5 x 12	T15	
2100-0074	MLD-M40	M4 x 10	T15	
2100-0076	MLD-M50	M5 x 12	T20	
2100-4350	MS0422		S3	
2100-4353	MS0523		S3	
2100-0105	PM5 x 8	M5.0 x 12	S3	
2100-0106	PM6 x 12	M6.0 x 17	S4	
2100-0107	PM8 x 12	M8.0 x 17	S5	
2100-0108	PM8 x 16	M8.0 x 21	S5	
2100-0008	SDN535	M5 (Ext.) M3.5 (Int.)		
2100-0009	SDN850	M8 (Ext.) M5 (Int.)		
2100-0051	SM815.18L	M8 x 1 x 18	S4	
2100-0052	SM81018.22L	M8 X 1 X 22	S4	
2109-0031	SRS-3			
2109-0158	STC-4			
2109-0154	STC-5			
2109-0150	STC-20			
2100-0001	XNS-0520	M5X20		
2100-0004	XNS-0620	M6X20		
2100-0002	XNS-0829	M8X20		

XNS STYLE SCREWS:

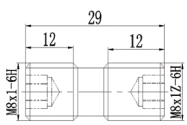
XNS-0520 Shown



XNS-0620 Shown



XNS-0820 Shown



HEX KEY WRENCHES

- Precision fit for secure fastening.
- Hardened steel for long life.
- Inch and metric sizes are available.

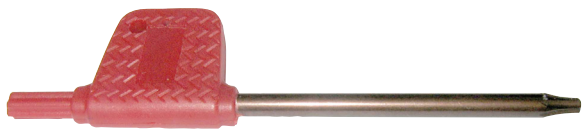


Item#	Style	Size
2100-1085	S5/64	5/64
2100-1092	S3/32	3/32
2100-1094	S5/32	5/32
2100-1095	S1/8	1/8
2100-1087	S2	2mm

Item#	Style	Size
2100-1086	S2.5	2.5mm
2100-1084	S3	3mm
2100-1088	S3.5	3.5mm
2100-1089	S4	4mm
2100-1090	S5	5mm

TORX WRENCHES

- Secure Torx drive engagement.
- Durable hardened steel construction.
- Fits a variety of insert screws.



Item#	Size
2100-0091	T-6
2100-0092	T-8
2100-0093	T-9
2100-0094	T-10

Item#	Size
2100-0095	T-15
2100-0096	T-20
2100-0097	T-25

CLAMPS FOR INDEXABLE TOOLING
METRIC THREAD

Item#	Style
2109-0104	CK-6
2109-0110	CK-23
2109-0108	CK-43
2100-0006	CL-6
2100-0012	CL-12
2100-0020	CL-20
2100-0030	CL-30
2100-0031	CTF-5/CTFPN-5
2100-0032	DLM2
2100-0033	DLM3/TP-1
2100-0034	DLM4/TP-3

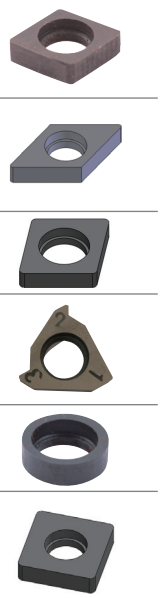


Item#	Style
2100-0015	MTH0820
2100-0011	TNSB-2B
2100-0010	TNSB-3B
2100-2901	TP-1
2100-2902	TP-2
2100-2903	TP-3
2100-2904	TP-4

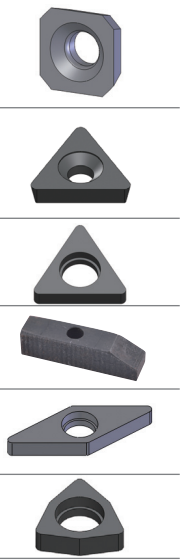


SHIMS FOR INDEXABLE TOOLING

Item#	Style
2100-0903	C0903B
2100-1203	C1203B
2100-1604	C1604B
2100-1904	C1904B
2100-1103	D1103B
2100-1504	D1504B
2100-1905*	D1904B
2109-0002	IDSN-443
2109-0001	ICSN-433
2100-1630	LT16R-30
2100-2204	LT22R-4B
2100-0904	R0903B
2100-1003	R1003B
2100-1204	R1203B
2100-0905	S0903B
2100-1205	S1203B
2100-1505	S1504B
2100-1906	S1904B



Item#	Style
2100-4200	SE1203X
2100-1051	SM815.182
2100-1102	TP11D
2100-1100	TP16D
2100-1101	TP22D
2100-1603	T1603B
2100-2203	T2203B
2100-2703	T2703B
2100-2210	TNSN-2A
2100-2212	TNSN-3A-3
2100-2214	TNSN-3A
2100-1602	V1603B
2100-2202	V2203B
2109-0008	IVSN-322
2100-0603	W0603B
2100-0803	W0803B
2109-0004	IWSN-322



* Limited Supply

SHIM PINS

Item#	Style
2100-0055	THT0505
2100-0056	THT0706
2100-0057	THT0907
2100-0058	THT1212



SPRINGS FOR INDEXABLE TOOLING

Item#	Style
2100-0100	MTH0610
2100-4380	YB5512
2100-4384	YB6512



LOCK PINS FOR INDEXABLE TOOLING
METRIC THREAD



Item#	Style
2100-0800	M-ZX0410
2109-0014	NL-34L
2109-0016	NL-46L



Item#	Style
2100-0410	NL-0410
2100-0414*	NL-0414
2100-0611	NL-0611
2100-0412	NL-412
2100-0617*	NL-0617
2100-0822	NL-0822
2100-0823*	NL-0823

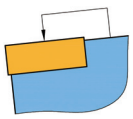
* Use a shim

EXTERNAL TURNING TOOL HOLDERS IDENTIFICATION SYSTEM (INCH)

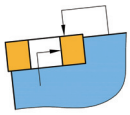
P	S	B	N	R	16		-	4	D
1	2	3	4	5	6	7		8	9

1 METHOD OF HOLDING

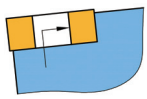
Top clamping — C



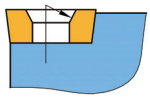
Top and hole clamping — M



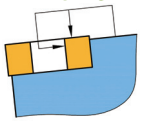
Pin only — P



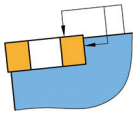
Screw clamping — S



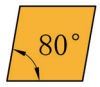
Double clamping — T

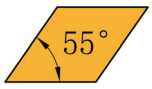


Wedge clamping — W



2 INSERT SHAPE

C 

D 

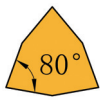
K 

R 

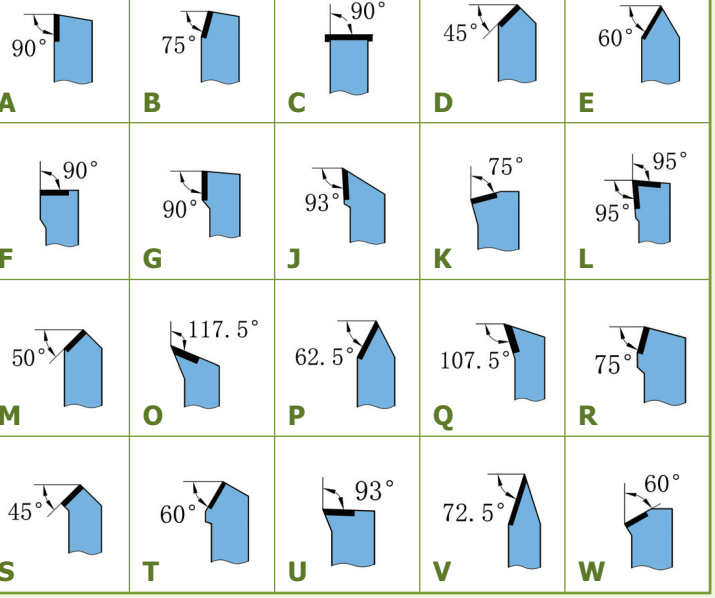
S 

T 

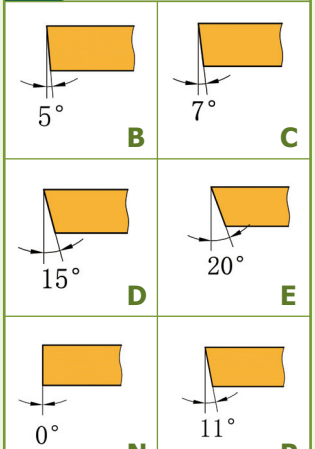
V 

W 

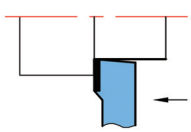
3 TOOL STYLE OR LEAD ANGLE

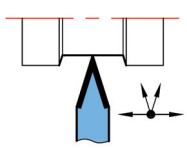


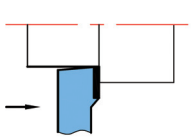
4 INSERT CLEARANCE ANGLE



5 CUTTING DIRECTION

R 

N 

L 

6 SHANK SIZE

For square shank, the number represents the of sixteenths (1/16) of width and height.

6=3/8" Square
8=1/2" Square
10=5/8" Square
12=3/4" Square
16=1" Square
20=1-1/4" Square
24=1-1/2" Square

For rectangular shanks, the first digit represents the number of eights (1/8) of width and the second digit represents the number of quarters of height.

64=3/4" x 1"
85=1" x 1-1/4"
86=1" x 1-1/2"

7 ADDITIONAL CODES

D=Extended+1mm

E=Extended+2mm

F=Neutral, no offset

8 INSERT SIZE (I.C.)

Number of eights (1/8) of I.C. (Inscribed Circle)

Insert less than 1/4" I.C.

5=5/32" 6=3/16"
7=7/32"

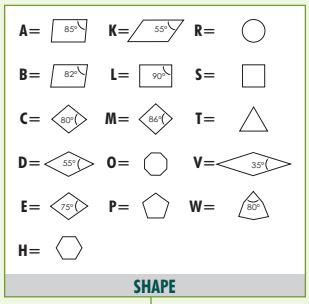
Insert 1/4" I.C. and over (in)

2=1/4" 2.5=5/16"
3=3/8" 4=1/2"
5=5/8" 6=3/4"

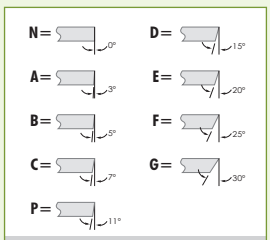
9 HOLDER LENGTH

Q	2"	B	4.5"
P	2.5"	C	5"
N	2.75"	D	6"
M	3"	E	7"
K	3.15"	F	8"
J	3.5"	G	10"
A	4"	H	12"

INSERT DESIGNATION - ANSI



SHAPE



CLEARANCE

Number of 1/16's on inserts less than 1/4" I.C.

Number of 1/8's on inserts 1/4" I.C. and over

Rectangle and parallelogram inserts require two digits:
-1st, Number of 1/8's in width
-2nd, Number of 1/4's in length

2=1/4"	5=5/8"
3=3/8"	6=3/4"
4=1/2"	8=1"

I.C.

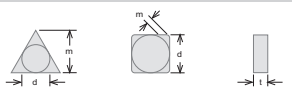
0=Sharp Corner	4=1/16" radius
1=1/64" radius	6=3/32" radius
2=1/32" radius	8=1/8" radius
3=3/64" radius	12=3/16" radius

A=Square w/45° chamfer
D=Square w/30° chamfer
E=Square w/15° chamfer
K=Square w/15° double chamfer
N=Truncated triangle insert
P=Flattened corner triangle

CORNER

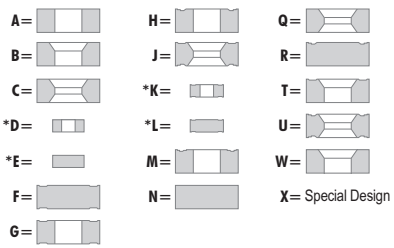
C N M G · 4 3 2

TOLERANCE



d	m	t
A= ± .0010	± .0002	± .001
F= ± .0005	± .0002	± .001
C= ± .0010	± .0005	± .001
H= ± .0005	± .0005	± .001
E= ± .0010	± .0010	± .001
G= ± .0010	± .0010	± .005
**J= ± .002 to ± .006	± .0002	± .001
**K= ± .002 to ± .006	± .0005	± .001
**L= ± .002 to ± .006	± .0010	± .001
**M= ± .002 to ± .006	± .003 to ± .008	± .005
**N= ± .002 to ± .006	± .003 to ± .008	± .001
**U= ± .003 to ± .010	± .005 to ± .015	± .005

GEOMETRY



THICKNESS

Number of 1/32's on inserts less than 1/4" IC

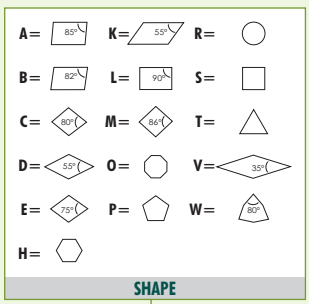
Number of 1/16's on inserts 1/4" IC and over

1=1/16"	4=1/4"
2=1/8"	5=5/16"
3=3/16"	6=3/8"

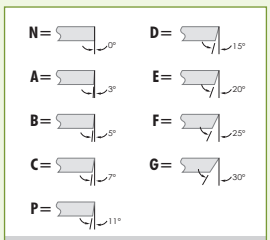
* Smaller than 1/4" I.C.
** Exact tolerance is determined by the size of the insert.

Geometry:
B, C, H, J - countersink is between 70~90 degrees.
Q, T, U, W - countersink is between 40~60 degrees.

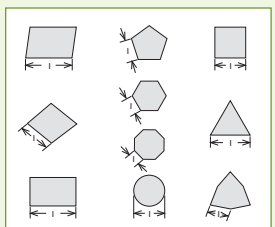
INSERT DESIGNATION - ISO



SHAPE



CLEARANCE



If less than 10 use 0 in first place.
Example: 9.525=09

LENGTH OF CUTTING EDGE

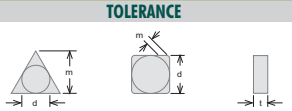
00=Round Insert	12=1.2mm
00=Sharp Corner	16=1.6mm
02=0.2mm	24=2.4mm
04=0.4mm	32=3.2mm
08=0.8mm	40=4.0mm

A=Square w/45° chamfer
D=Square w/30° chamfer
E=Square w/15° chamfer
K=Square w/15° double chamfer
N=Truncated triangle insert
P=Flattened corner triangle

CORNER

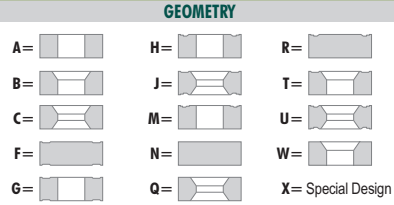
C N M G · 12 04 08

TOLERANCE

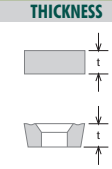


d	m	t
A= ± 0.025	± 0.005	± 0.025
F= ± 0.013	± 0.005	± 0.025
C= ± 0.025	± 0.013	± 0.025
H= ± 0.013	± 0.013	± 0.025
E= ± 0.025	± 0.025	± 0.025
G= ± 0.025	± 0.025	± 0.130
*J= ± 0.05 to ± 0.15	± 0.005	± 0.025
*K= ± 0.05 to ± 0.15	± 0.013	± 0.025
*L= ± 0.05 to ± 0.15	± 0.025	± 0.025
*M= ± 0.05 to ± 0.15	± 0.08 to ± 0.20	± 0.130
*N= ± 0.05 to ± 0.15	± 0.08 to ± 0.20	± 0.025
*U= ± 0.08 to ± 0.25	± 0.13 to ± 0.38	± 0.130

GEOMETRY



THICKNESS



If less than 10 use 0 in first place.

Example: 3.18=03

* Exact tolerance is determined by the size of the insert.

Geometry:
B, C, H, J - countersink is between 70~90 degrees.
Q, T, U, W - countersink is between 40~60 degrees.

CARBIDE INSERT GRADE DEFINITIONS

GRADE COMPARISON

C-2	General purpose-for cast iron and non-ferrous materials.
C-5	For heavy roughing to semi finishing of all steels.
C-6	Designed for heavy roughing to semi finishing of steels.
BPG253-CVD	CVD coated universal grade is suitable for steel and cast steel continuous cutting and interrupted cutting, finishing to roughing.
BPG20B-PVD	PVD coated micro-grain carbide to use for a variety of stainless steel finishing at medium to low cutting speed. Excellent edge strength and high surface quality, provides the perfect ride cutting. High thermal shock resistance. Suitable for light interrupted cuts.
TiN Coated	For turning and milling carbon and alloy steels, tool steel and stainless steel. Provides longer life than uncoated grades. For high heat & wear resistance on alloys, stainless steel & ductile iron
XAB599	CVD all round coated cemented carbide. Optimized for medium to rough steel milling, but also a good solution for nodular cast iron.
XAB649	A secure all around CVD coated grade for high productive P30 applications. It is tough enough for the most difficult steel machining. Use in dry and wet machining and interruptions. A grade you can rely on when the going gets tough.
XAB698	Possesses an excellent thermal and chemical stability with a optimized combination of high performance Nano coating and a highly tough substrate of ultra fine grains aimed at materials hard to machine, such as stainless steel, heat resistant alloys, titanium alloys, high temperature alloys, etc. It is especially suitable for finishing and semi-finishing applications.
XAB699	CVD all round coated cemented carbide. Optimized for steel milling, but also a good solution for nodular cast iron. This grade provides an economic solution in medium to long series production.
XAB748	Comprising of thick TiCN and Al2O3 coating has high anti-plastic yield and cutting edge strength and is the preferred universal grade from steel finishing to roughing. It behaves steady in wicked cutting conditions and can realizes environmental dry-cutting. The cutting speed can increase more than 25% at the same cutting condition and the life will be improved more than 30% at the same cutting speed.
XAB749	The cutting edge has special strength and toughness, in an optimal combination with MT-TiCN, thick layer Al2O3TiN coating. It is a suitable grade for a wide variety of applications. It is good for finishing, semi-finishing and light roughing of steel, cast steel, stainless steel and cast iron.
XAB848	Comprised of thick TiCN and Al2O3 coatings makes it suitable for finishing and semi-finishing at high speed. It upgrades abrasive resistance greatly on the premise of increasing toughness. The cutting speed can increase more than 25% and the life will be improved more than 30% at the same cutting speed.
XAB849	Substrate with excellent wear-resistance, in combination with MT-TiCN, thick layer Al2O3TiN coating. It is an ideal grade for finishing steel, cast steel and stainless steel under high speed and dry machining.
XAC849	CVD all round coated cemented carbide. Optimized for steel milling, but also a good solution for nodular cast iron. This grade provides good economy in medium to long series production.
XAC898	CVD coated grade, which is the combination of hard substrate and coating(thick Al_2O_3 + thick TiCN), shows excellent wear resistance and impact resistance when machining nodular cast iron at high speed.
XAF795	Unique grade material with near perfect wear resistance and high temperature resistance. The nc-TiAlN coating, ultrafine grain substrate , and unique surface treatment make this grade suitable for high precision cutting of "difficult to machine" materials, such as stainless steel, etc.
XAF798	A combination of 2-4 um nc-TiAlN coating and ultrafine grain carbide substrate with high strength and toughness. Suitable for light to medium milling, and boring of all kinds of materials. Recommended for finish and semi-finish turning of stainless steel and roughing turning of high-temperature alloys of steel from finishing to roughing. Under the same cutting conditions, the cutting speed can be increased by more than 25%, while the tool life can be 30% longer under the same cutting speed.
XAF799	PVD TiN coated carbide grade with good toughness and wear resistance. It is good for threading and drilling (both peripheral and central inserts) low carbon steel, stainless steel and heat resistance for steel and cast irons.
XAL649	Substrate with good toughness and strength, in combination with TiCN, thin layer Al2O3, TiN coating. It is a premium grade for semi-finishing to light roughing milling of stinless steel at continuous and intermittent milling conditions.
XAL749	A very all around CVD coated cemented carbide grade optimized for medium machining to roughing of stainless steel in both continuous and interrupted cuts. The grade has an excellent resistance to both thermal and mechanical shock.
XC899	With fine size grain. Good for fine and semi-finishing machining of cast iron and nonferrous metal. Particularly for machining of aluminum.
XMF849	TiCN based cermet, with fine resistant thermoplastic transmutation and resistant built-up. It is suitable for semi-finishing and finishing of steel, stainless steel and cast iron.

CARBIDE GRADE INFORMATION/COMPARISON

GRADE	MITSUBISHI	SANDVIK	SECO	KENNAMETAL	VALENITE	KORLOY	WALTER	TaeguTec
XAB849	UE6005/UE6010	GC4015	TX110	KC9110/KC935			WTL41/WTA33	
XAB848	F7010	GC4215	TX110	KC9010/KC910	SV305	NC310	WTA21	TT1500
XAB749	UC6010/EU6020	GC4020	TP200	KC725M/KC9125	SV410		WTA31/WXK15/WQM25/WTL82	TT3500
XAB748	UC6025/F620	GC4025	T250M/T25M	KC9040/KC625M	SV325	NC310	WAP20/WTN43	
XAB699	UP20M/AP20M	GC4030/GC4035	CP20TP200	KC850/CM4KC7025/KC7215	SV935	NC320/NC330	WXM15/WTA41	TT7200
XAB698								
XAB649	UE6035	GC4125	CP30	CD4/KC7020	SV330	NC320	WXP25/WTA61/WTL71/WTL14	
XAB599	UE6035	GC1120	TP40	CS3(KC7030)	SM245	NC330	WQM35/WTP30	TT8020
XAC849	UC6010/EU6020	GC3015/GC3115	TP100	KC625M/KC631M	SV305		WAK15	
XAF799	UP10H	GC1020/GC1120	TX150	KC992M/KC7215/KC9315/KC7225	SV415	NC315K	WAK20/WTA43/WTA33/WTA/41	
XAF798	AP20M	GC3040	F25M	KC9025/KC631M		NCM325	WXP20/WTP20	
XAF797								
XAF960	AP15TF	GC3040		CS3(KC7030)	SV515		WAP35	TT8020
XAL849		GC2015		KC510M			WAM10/WAP10	TT9030
XAL749	F620	GC2025	CP50	KC9225/KC7020	SV415	NC325S	WAM20/WTA43	TT5100
XAL748	F620	GC2025	CP50	KC9225/KC7020	SV415	NC325S	WAM20/WTA43	TT5100
XAL649	F730	GC2035	CP50	KC9040/KC7020		NCM335	WTP35/WTA51	TT8020
XB970R								
XMF849								

CHIP-BREAKER INFORMATION

Characteristics	Description
-DF	**Recommended for finishing steel materials.** With a satisfactory flow of chips and an excellent surface quality.
-DM	**Recommended for semi-finishing steel materials.** With a light cutting force and a wide range of chipping, it can achieve better results in machining alloyed steel with a high adhesiveness.
-DR	**Recommended for quasi-roughing steel materials.** It is the first option for roughing operations under general working conditions. It can achieve a high rate of metal removal and economy.
-EF	**Recommended for finishing materials heat-resistant steel.** A specially designed rake angle and an inclined edge angle aimed at machining highly adhesive and plastic material hard to machine, like stainless steel. The edges are sharp making the cutting light and smooth, getting a good control of the chips and obtaining an excellent surface quality, which makes it most suitable for ultra fine and fine machining of such materials.
-EM	**Recommended for 300 series stainless steels.** Impact resistance of the cutting edge is strengthened for interrupted cutting. The sharp cutting edges function to shear low machinability rated metals while resisting edge-build-up.
-HF	**Recommended for finishing of universal applications.** Suitable for finishing internal and peripheric operations in machining steel and cast iron. Fine finishing of surface can be achieved with a slow feed rate.
-HM	**Recommended for semi-finishing of universal applications.** With sharp wave cutting edges to reduce cutting force. Suitable for semi-finishing internal and peripheric operations of steel and cast iron. It is the first choice for semi-finishing of internal holes and allows chips to flow smoothly.
-HR	**Recommended for roughing operations.** With tough cutting edge. Suitable for internal and peripheric machining of steel, stainless steel and cast iron with irregular surface.
-LH	**Recommended for aluminum alloy.** Suitable maching aluminum alloy with larger cutting depth and higher feed rate.
-PF	**Recommended for finishing steel materials.** Suitable for finishing operations under unstable cutting conditions with a light cutting force.
-PM	**Recommended for semi-finishing steel materials.** With a stronger edge than -DM. Suitable for semi-finishing operations under unstable cutting conditions and for machining cast iron as well with a light cutting force.
-PR	**Recommended for roughing of steel.** With a high safety of cutting edges. It can achieve a high rate of metal removal with a low cutting force under working conditions of deep cuts and fast feed rates.

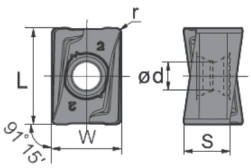
ANGX CARBIDE INSERTS

ANGX

- Double-sided insert provides 4-cutting edges, has a bigger depth of cut providing value and economy.
- High precision cutting edges are more agressive & they have twice the cutting edges of APKT.
- Disigned to improve shoulder milling surface finish.



10 PC PER PACKAGE



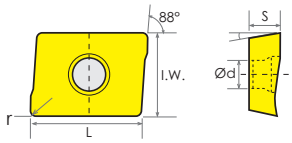
Item#	ANSI Insert No.	L	W	S	d	r	Grade
6064-0011	ANGX110508 PNR-GM	0.467"	0.331"	0.224"	0.138"	0.031"	XAF795
6064-0015	ANGX150608 PNR-GM	0.608"	0.433"	0.287"	0.173"	0.031"	XAF795

APKT-SQUARE SHOULDER MILLING CARBIDE INSERT (10MM)
Positive Rake Angle

APKT



10 PC PER PACKAGE

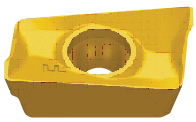


Item#	ANSI Insert No.	I.W.	L	S	d	r	Grade
6010-4203	APKT-1003PDER	.265"	.441"	.137"	.110"	1/64"	XAF798

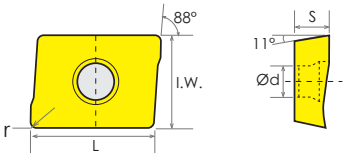
APKT/PF CARBIDE SHOULDER MILLING INSERTS (11MM)
11° Relief Clearance

APKT-PF

PF - Excellent Surface Finishing



10 PC PER PACKAGE



Item#	ANSI Insert No.	I.W.	(Inch) L	S	d	r	Grade
6010-3002	APKT-11T304-PF	.256	.482	.142	.110	.0157	XAB699

APKT/PM CARBIDE SHOULDER MILLING INSERTS (11MM, 16MM)
11° Relief Clearance

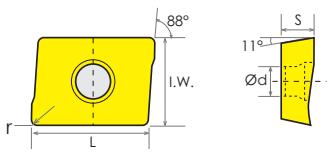
APKT-PM

PM - With stronger cutting edge, it is better for intermittent cutting than -DM, with wider cutting zone of steel materials.

PM - Suitable for Mixed Production



10 PC PER PACKAGE



Item#	ANSI Insert No.	I.W.	(Inch) L	S	d	r	Grade
6010-4002	APKT-11T304-PM	.256	.482	.142	.110	.0157	XAB699
6010-4308	APKT-11T308-PM	.256	.482	.142	.110	.0315	XAF798
6010-4316*	APKT-11T316-PM	.256	.482	.142	.110	.0630	XAF798
6010-4003	APKT-160408-PM	.363	.704	.227	.173	.0315	XAB699

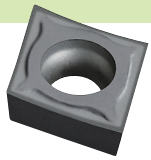
* Limited Supply

CCGX/LH CARBIDE INSERTS FOR ALUMINUM ALLOY

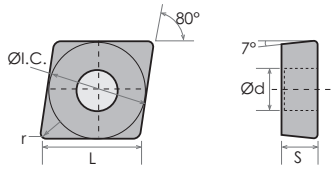
CCGX-LH

LH - Suitable for machining aluminum alloy with larger cutting depth and higher feed rate.

Limited Supply!



10 PC PER PACKAGE



Item#	ANSI Insert No.	ISO Insert No.	I.C.	(Inch) L	S	d	r	Grade
6054-0221	CCGX3(2.5)1-LH	CCGX09T304-LH	3/8	.382	5/32	.173	.016	XC899
6054-0431	CCGX-431-LH	CCGX120404-LH	1/2	.508	3/16	.219	.016	XC899
6054-0432	CCGX-432-LH	CCGX120408-LH	1/2	.508	3/16	.219	.031	XC899

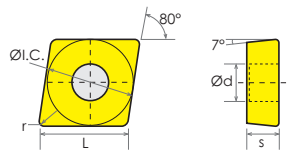
* Limited Supply

Carbide grades and insert classification shown on pages 191-192

CCMT 80° DIAMOND - POSITIVE RAKE CARBIDE INSERTS

CCMT

- Use for turning.
- 7° relief angle.
- Single sided.
- Use for light cuts.





10 PC PER PACKAGE

Item#	ANSI Insert No.	ISO Insert No.	I.C.	L	(Inch) S	d	r	Grade
6003-2021	CCMT-21.51	CCMT060204	1/4	1/4	3/32	7/64	.0157	TiN(C5)
6003-2022	CCMT-21.52	CCMT060208	1/4	1/4	3/32	7/64	.0315	TiN(C5)
6003-2032	CCMT-32.51	CCMT09T304	3/8	3/8	5/32	0.17	.0315	TiN(C5)

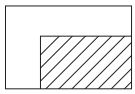
CNMA DIAMOND-NEGATIVE RAKE CARBIDE INSERTS

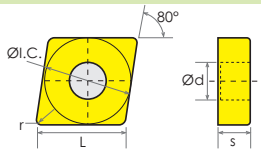
CNMA

- Use for turning & boring
- 0° relief angle.
- No chipbreaker.
- 80° diamond negative rake.

Limited Supply!







10 PC PER PACKAGE

Item#	ANSI Insert No.	ISO Insert No.	I.C.	L	(Inch) S	d	r	Grade
6000-6431	CNMA-431	CNMA120404	1/2	1/2	3/16	13/64"	.0157	XAC849
6000-6432	CNMA-432	CNMA120408	1/2	1/2	3/16	13/64	.0315	XAC849
6000-6433	CNMA-433	CNMA120412	1/2	1/2	3/16	13/64	.0472	XAC849
6000-6543	CNMA-543	CNMA160612	5/8	5/8	1/4	1/4	.0472	XAC849
6000-6643	CNMA-643	CNMA190612	3/4	3/4	1/4	5/16	.0472	XAC849
6000-6644	CNMA-644	CNMA190616	3/4	3/4	1/4	5/16	.0630	XAC849

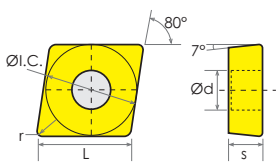
CCMT/HM 80° DIAMOND-POSITIVE RAKE CARBIDE INSERTS

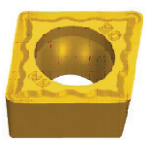
CCMT-HM

HM - Medium Geometry. Periphery Ground Insert. Mixed Production

HM - With a sharp wave cutting edge to reduce cutting force, it is the first choice for semi-finishing of internal holes and allows chips to flow smoothly.







10 PC PER PACKAGE

Item#	ANSI Insert No.	ISO Insert No.	I.C.	L	(Inch) S	d	r	Grade
6003-5021	CCMT-21.51-HM	CCMT060204HM	1/4	1/4	3/32	7/64	.0157	XAB749
6003-5022*	CCMT-21.52-HM	CCMT060208HM	1/4	1/4	3/32	7/64	.0315	XAB749
6003-5031	CCMT-32.51-HM	CCMT09T304HM	3/8	3/8	5/32	0.17	.0157	XAB749
6003-5032	CCMT-32.52-HM	CCMT09T308HM	3/8	3/8	5/32	0.17	.0315	XAB749
6003-5431*	CCMT-431-HM	CCMT120404HM	1/2	1/2	3/16	7/32	.0157	XAB749
6003-5433*	CCMT-433-HM	CCMT120412HM	1/2	1/2	3/16	7/32	.0472	XAB749

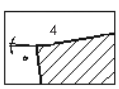
* Limited Supply

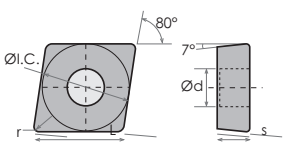
CCMT/EM 80° DIAMOND - POSITIVE RAKE CARBIDE INSERTS

CCMT-EM

EM - Semi-Finishing Geometry. Stainless Steel Material

EM - Single-side chipbreaker with M-class tolerance serves to reduce cutting force and workpiece adhesion when machining stainless steel. Possesses higher feed and depth of cut capability than EF chipbreaker.







10 PC PER PACKAGE

Item#	ANSI Insert No.	ISO Insert No.	I.C.	L	(Inch) S	d	r	Grade
6053-0111	CCMT-21.51-EM	CCMT060204EM	1/4	1/4	3/32	7/64	.0157	XAF798
6053-0112	CCMT-21.52-EM	CCMT060208EM	1/4	1/4	3/32	7/64	.0315	XAF798
6053-0221	CCMT-32.51-EM	CCMT09T304EM	3/8	3/8	5/32	0.17	.0157	XAF798
6053-0222	CCMT-32.52-EM	CCMT09T308EM	3/8	3/8	5/32	0.17	.0315	XAF798

Carbide grades and insert classification shown on pages 191-192

CARBIDE INSERTS

CNMG/DF DIAMOND-NEGATIVE RAKE CARBIDE INSERT

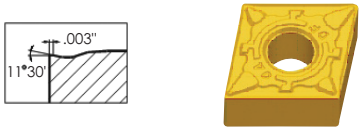
CNMG-DF

DF-For Steel Finishing

10 PC PER PACKAGE

DF-Chip-breaker with special angle design allows for easy cuttings, controls chip flow and provides good surface finish

Limited Supply!



Item#	ANSI Insert No.	ISO Insert No.	I.C.	L	(Inch) S	d	r	Grade
6000-1433	CNMG-433-DF	CNMG120412DF	1/2	1/2	3/16	13/64	.0472	XAB849

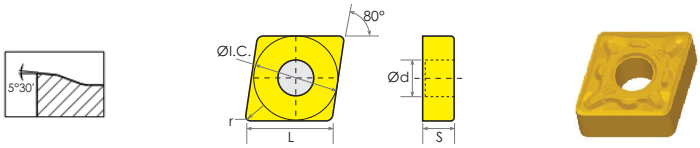
CNMG/DM DIAMOND-NEGATIVE RAKE CARBIDE INSERTS

CNMG-DM

DM - For Steel Medium Machining

10 PC PER PACKAGE

DM - Widely used chipbreaker for semi-finishing and finishing of steel and stainless steel.



Item#	ANSI Insert No.	ISO Insert No.	I.C.	L	(Inch) S	d	r	Grade
6000-2431	CNMG-431-DM	CNMG120404DM	1/2	1/2	3/16	13/64	.0157	XAB749
6000-2432	CNMG-432-DM	CNMG120408DM	1/2	1/2	3/16	13/64	.0315	XAB749
6000-2433*	CNMG-433-DM	CNMG120412DM	1/2	1/2	3/16	13/64	.0472	XAB749
6000-2542*	CNMG-542-DM	CNMG160608DM	5/8	5/8	1/4	1/4	.0315	XAB749
6000-2543*	CNMG-543-DM	CNMG160612DM	5/8	5/8	1/4	1/4	.0472	XAB749
6000-2643*	CNMG-643-DM	CNMG190612DM	3/4	3/4	1/4	5/16	.0472	XAB749

* Limited Supply

CNMG/DM DIAMOND-NEGATIVE RAKE CERMET INSERTS

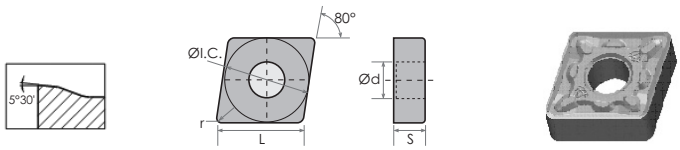
CNMG-DM

DM - For Steel Medium Machining

10 PC PER PACKAGE

DM - Widely used chipbreaker for semi-finishing and finishing of steel and stainless steel.

Limited Supply!



Item#	ANSI Insert No.	ISO Insert No.	I.C.	L	(Inch) S	d	r	Cermet Grade
6000-5431	CNMG-431-DM	CNMG120404DM	1/2	1/2	3/16	13/64	.0157	XMF849
6000-5432	CNMG-432-DM	CNMG120408DM	1/2	1/2	3/16	13/64	.0315	XMF849

CNMG/DM -BLACK-DIAMOND COATED CARBIDE INSERTS

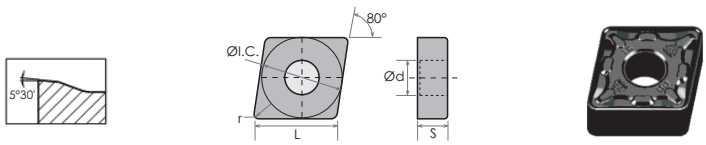
CNMG-DM

DM - For Steel Medium Machining

10 PC PER PACKAGE

DM - Widely used chipbreaker for semi-finishing and finishing of steel and stainless steel.

TiCN & Al_2O_3 COATED



Item#	ANSI Insert No.	ISO Insert No.	I.C.	L	(Inch) S	d	r	Grade
6030-2431	CNMG-431-DM	CNMG120404DM	1/2	1/2	3/16	13/64	.0157	XAB748
6030-2432	CNMG-432-DM	CNMG120408DM	1/2	1/2	3/16	13/64	.0315	XAB748
6030-2433	CNMG-433-DM	CNMG120412DM	1/2	1/2	3/16	13/64	.0472	XAB748
6030-2643*	CNMG-643-DM	CNMG190612DM	3/4	3/4	1/4	5/16	.0472	XAB748

* Limited Supply

Carbide grades and insert classification shown on pages 191-192

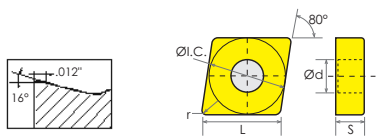
CNMG/DR DIAMOND - NEGATIVE RAKE CARBIDE INSERTS

CNMG-DR

DR- For Light Roughing of Steel, Stainless Steel Material

DR - Single-side chipbreaker with M-class tolerance has high security on cutting edge for higher removal rates and low cutting force at large cutting depth and high feed rates.

Limited Supply!





10 PC PER PACKAGE

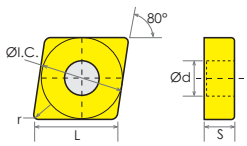
Item#	ANSI Insert No.	ISO Insert No.	I.C.	L	(Inch) S	d	r	Grade
6048-0543	CNMG-543-DR	CNMG160612DR	5/8	5/8	1/4	1/4	.0472	XAB748
6048-0544	CNMG-544-DR	CNMG160616DR	5/8	5/8	1/4	1/4	.0630	XAB748
6048-0643	CNMG-643-DR	CNMG190612DR	3/4	3/4	1/4	5/16	.0472	XAB748
6048-0644	CNMG-644-DR	CNMG190616DR	3/4	3/4	1/4	5/16	.0630	XAB748

CNMG/PM DIAMOND-NEGATIVE RAKE CARBIDE INSERTS

CNMG-PM

PM - Suitable for Mixed Production

PM - With stronger cutting edge, it is better for intermittent cutting than -DM, with wider cutting zone of steel materials





10 PC PER PACKAGE

Item#	ANSI Insert No.	ISO Insert No.	I.C.	L	(Inch) S	d	r	Grade
6000-3431	CNMG-431-PM	CNMG120404PM	1/2	1/2	3/16	13/64	.0157	XAB749
6000-3432	CNMG-432-PM	CNMG120408PM	1/2	1/2	3/16	13/64	.0315	XAB749
6000-3433*	CNMG-433-PM	CNMG120412PM	1/2	1/2	3/16	13/64	.0472	XAB749
6000-3542*	CNMG-542-PM	CNMG160608PM	5/8	5/8	1/4	1/4	.0315	XAB749
6000-3543*	CNMG-543-PM	CNMG160612PM	5/8	5/8	1/4	1/4	.0472	XAB749
6000-3643*	CNMG-643-PM	CNMG190612PM	3/4	3/4	1/4	5/16	.0472	XAB749

* Limited Supply

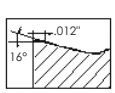
CNMM/DR DIAMOND-NEGATIVE RAKE CARBIDE INSERTS

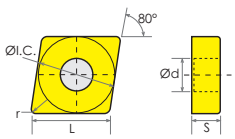
CNMM-DR

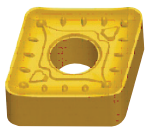
DR - For Light Roughing of Steel

DR - Special chip-breaker with high toughness cutting edge can reduce cutting force

Limited Supply!







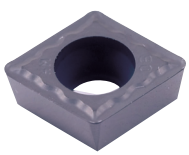
10 PC PER PACKAGE

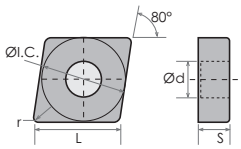
Item#	ANSI Insert No.	ISO Insert No.	I.C.	L	(Inch) S	d	r	Grade
6001-2432	CNMM-432-DR	CNMM120408HDR	1/2	1/2	3/16	13/64	.0315	XAB749
6001-2433	CNMM-433-DR	CNMM120412DR	1/2	1/2	3/16	13/64	.0472	XAB749
6001-2543	CNMM-543-DR	CNMM160612DR	5/8	5/8	1/4	1/4	.0472	XAB749
6001-2544	CNMM-544-DR	CNMM160616DR	5/8	5/8	1/4	1/4	.0630	XAB749
6001-2643	CNMM-643-DR	CNMM190612DR	3/4	3/4	1/4	5/16	.0472	XAB749
6001-2644	CNMM-644-DR	CNMM190616DR	3/4	3/4	1/4	5/16	.0630	XAB749

CPMT 80° BLACK-DIAMOND COATED - POSITIVE RAKE CARBIDE INSERTS

CPMT

- Use for boring & facing.
- 11° relief angle.
- Single sided with chip control.





10 PC PER PACKAGE

Item#	ANSI Insert No.	ISO Insert No.	I.C.	L	(Inch) S	d	r	Grade
6060-0211	CPMT-21.51	CPMT060204	1/4	1/4	3/32	7/64	.0157	XAC898
6060-0431	CPMT-432	CPMT120408	1/2	1/2	3/16	0.217	.0315	XAC898

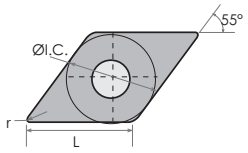
Carbide grades and insert classification shown on pages 191-192

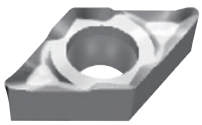
DCGX/LH CARBIDE INSERTS FOR ALUMINUM ALLOY

DCGX-LH

LH Chip-Breaker is more suitable for machining aluminum alloy with larger cutting depth and higher feed rate

Limited Supply!





10 PC PER PACKAGE

Item#	ANSI Insert No.	ISO Insert No.	I.C.	L	(Inch) S	d	r	Grade
6055-0221	DCGX3(2.5)1-LH	DCGX11T304-LH	3/8	.457	5/32	.173	.016	XC899
6055-0222	DCGX3(2.5)2-LH	DCGX11T308-LH	3/8	.457	5/32	.173	.031	XC899

DCMT/EM 55° DIAMOND - POSITIVE RAKE CARBIDE INSERTS

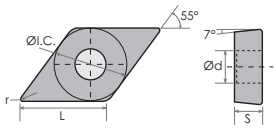
DCMT-EM

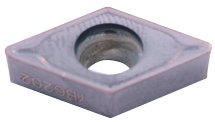
EM - Semi-Finishing Geometry. Stainless Steel Material

10 PC PER PACKAGE

EM - Single-side chipbreaker with M-class tolerance serves to reduce cutting force and workpiece adhesion when machining stainless steel. Possesses higher feed and depth of cut capability than EF chipbreaker.







Item#	ANSI Insert No.	ISO Insert No.	I.C.	L	(Inch) S	d	r	Grade
6004-1021	DCMT-21.51-EM	DCMT070204EM	1/4	0.307	3/32	7/64	.0157	XAF798
6004-1022	DCMT-21.52-EM	DCMT070208EM	1/4	0.307	3/32	7/64	.0315	XAF798
6004-1031	DCMT-32.51-EM	DCMT11T304EM	3/8	29/64	5/32	0.17	.0157	XAF798

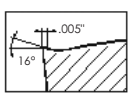
DCMT/HM 55° DIAMOND-POSITIVE RAKE CARBIDE INSERTS

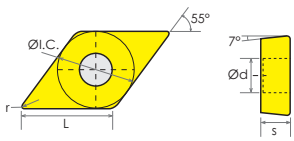
DCMT-HM

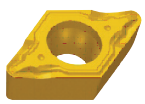
HM - Medium Geometry. Periphery Ground Insert. Mixed Production

10 PC PER PACKAGE

HM - With sharp wave cutting edge to reduce cutting force, it is the first choice for semi-finishing of internal holes and allows chips to flow smoothly.







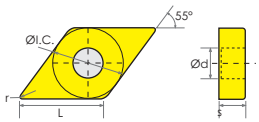
Item#	ANSI Insert No.	ISO Insert No.	I.C.	L	(Inch) S	d	r	Grade
6004-0021	DCMT-21.51-HM	DCMT070204HM	1/4	0.307	3/32	7/64	.0157	XAB749
6004-0031	DCMT-32.51-HM	DCMT11T304HM	3/8	29/64	5/32	0.17	.0157	XAB749
6004-0032	DCMT-32.52-HM	DCMT11T308HM	3/8	29/64	5/32	0.17	.0315	XAB749

DNMA 55° DIAMOND-NEGATIVE RAKE CARBIDE INSERTS

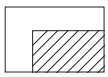
DNMA

- 55° diamond for profiling.

Limited Supply!







10 PC PER PACKAGE

Item#	ANSI Insert No.	ISO Insert No.	I.C.	L	(Inch) S	d	r	Grade
6001-3442	DNMA-442	DNMA150608	1/2	39/64	1/4	13/64	.0315	XAC849
6001-3443	DNMA-443	DNMA150612	1/2	39/64	1/4	13/64	.0472	XAC849
6001-3444	DNMA-444	DNMA150616	1/2	39/64	1/4	13/64	.0630	XAC849

Carbide grades and insert classification shown on pages 191-192

DNMG/DM 55° DIAMOND-NEGATIVE RAKE INSERTS

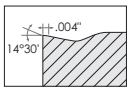
DNMG-DM

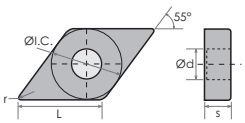
DM - Widely used chip-breaker is used for semi-finishing and finishing of steel and stainless steel

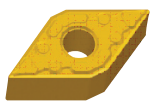
DM - For Steel Medium Machining

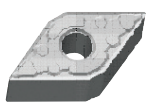
Black-Diamond: TiCN & Al_2O_3 COATED

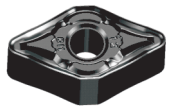
10 PC PER PACKAGE











ANSI Insert No.	ISO Insert No.	I.C.	(Inch) L	S	d	r	Carbide Item#	Carbide Grade	Cermet Item#	Cermet Grade	Black-Diamond Item#	Black-Diamond Grade
DNMG-331-DM	DNMG110404DM	3/8	29/64	3/16	0.15	.0157	6000-8331*	XAB749	----------	---	6033-1331	XAB748
DNMG-332-DM	DNMG110408DM	3/8	29/64	3/16	0.15	.0315	6000-8332*	XAB749	----------	---	6033-1332	XAB748
DNMG-431-DM	DNMG150404DM	1/2	39/64	3/16	13/64	.0157	----------	---	6001-1431*	XMF849	----------	---
DNMG-432-DM	DNMG150408DM	1/2	39/64	3/16	13/64	.0315	6000-8432*	XAB749	6001-1432*	XMF849	6033-1432	XAB748
DNMG-433-DM	DNMG150412DM	1/2	39/64	3/16	13/64	.0472	6000-8433*	XAB749	----------	---	6033-1433*	XAB748

* Limited Supply

DNMG/DR 55° BLACK-DIAMOND - NEGATIVE RAKE CARBIDE INSERTS

DNMG/DR

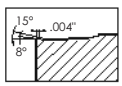
DR- For Light Roughing of Steel, Stainless Steel Material

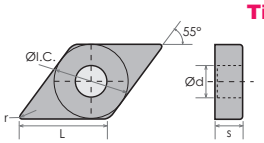
Black-Diamond: TiCN & Al_2O_3 COATED

10 PC PER PACKAGE

DR - Single-side chipbreaker with M-class tolerance has high security on cutting edge for higher removal rates and low cutting force at large cutting depth and high feed rates.

Limited Supply!







Item#	ANSI Insert No.	ISO Insert No.	I.C.	(Inch) L	S	d	r	Grade
6046-0433	DNMG-433-DR	DNMG150412DR	1/2	39/64	3/16	13/64	.0472	XAB748

DNMG/EF 55° - CARBIDE INSERTS

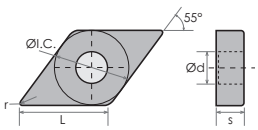
DNMG-EF

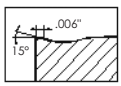
EF - For Stainless Steel, Highly Adhesive and Plastic Materials

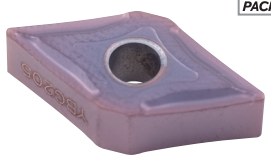
10 PC PER PACKAGE

EF Chip-Breaker specially designed rake angle and an inclined edge angle for machining stainless steel. The edges are sharp making the cutting light and smooth, getting a good control of the chips and obtaining a good surface quality, which makes it most suitable for ultra fine and fine machining of highly adhesive and plastic materials.

Limited Supply!







Item#	ANSI Insert No.	ISO Insert No.	I.C.	(Inch) L	S	d	r	Grade
6033-5331	DNMG-331-EF	DNMG110404EF	3/8	29/64	3/16	0.15	.0157	XAF795
6033-5332	DNMG-332-EF	DNMG110408EF	3/8	29/64	3/16	0.15	.0315	XAF795

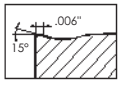
DNMG/PM 55° DIAMOND-NEGATIVE RAKE CARBIDE INSERTS

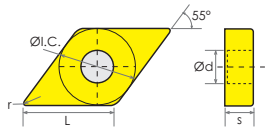
DNMG-PM

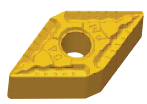
PM-Suitable for Mixed Production

10 PC PER PACKAGE

PM - With stronger cutting edge, it is better for intermittent cutting than -DM, with wider cutting zone of steel materials







Item#	ANSI Insert No.	ISO Insert No.	I.C.	(Inch) L	S	d	r	Grade
6000-9331*	DNMG-331-PM	DNMG110404PM	3/8	29/64	3/16	0.15	.0157	XAB749
6000-9332	DNMG-332-PM	DNMG110408PM	3/8	29/64	3/16	0.15	.0315	XAB749
6000-9432	DNMG-432-PM	DNMG150408PM	1/2	39/64	3/16	13/64	.0315	XAB749
6000-9433	DNMG-433-PM	DNMG150412PM	1/2	39/64	3/16	13/64	.0472	XAB749
6000-9434*	DNMG-434-PM	DNMG150416PM	1/2	39/64	3/16	13/64	.0630	XAB749
6000-9443*	DNMG-443-PM	DNMG150612PM	1/2	39/64	3/16	0.17	.0472	XAB749

* Limited Supply

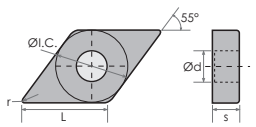
Carbide grades and insert classification shown on pages 191-192

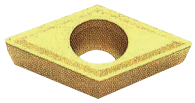
DPMT CARBIDE INSERTS, 11° Relief

DPMT

11° Positive Relief Angle

Item#	ANSI No.	I.C.	r
6027-3252	DPMT-32.52	3/8"	.0315"



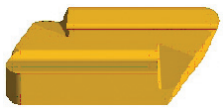


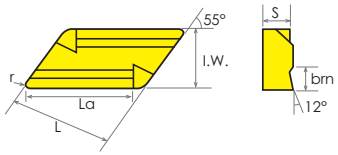
10 PC PER PACKAGE

KNUX PROFILE CARBIDE INSERTS

KNUX

- Turning insert.
- Parallelogram insert for profiling.
- Clamp on style.
- Negetive along cutting edge and positive flank along the narrow edge.





Limited Supply!

10 PC PER PACKAGE

Item#	ANSI Insert No.	La	L	I.W.	(Inch) S	bm	r	Grade
6005-4005	KNUX-160405L11	5/8	5/8	3/8	3/16	.0087	0.02	XAB749
6005-4010	KNUX-160410L11	5/8	5/8	3/8	3/16	.0087	0.04	XAB749
6005-4105	KNUX-160405L12	5/8	5/8	3/8	3/16	.0126	0.02	XAB749
6005-4110	KNUX-160410L12	5/8	5/8	3/8	3/16	.0126	0.04	XAB749
6005-4210	KNUX-160410R11	5/8	5/8	3/8	3/16	.0087	0.04	XAB749
6005-4305	KNUX-160405R12	5/8	5/8	3/8	3/16	.0126	0.02	XAB749
6005-4310	KNUX-160410R12	5/8	5/8	3/8	3/16	.0126	0.04	XAB749

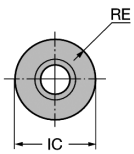
RCKT/DM CARBIDE FACE MILL INSERTS

RCKT-DM

7° Positive Relief Angle - For Turning & Facing

DM - Widely used chip-breaker is used for semi-finishing and finishing of steel and stainless steel

10 PC PER PACKAGE





Item#	ANSI Insert No.	I.C.	Thickness	Hole	Grade
6034-1204	RCKT1204MO-DM	0.472"	3/16"	0.157"	XAF798

RCKT/DR CARBIDE FACE MILL INSERTS

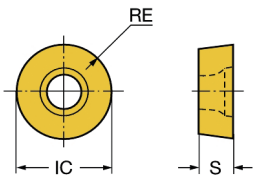
RCKT-DR

7° Positive Relief Angle - For Turning & Facing

DR - Used for roughing of material. It can achieve a high rate of metal removal & a low cutting force .



10 PC PER PACKAGE



Item#	ANSI Insert No.	I.C.	Thickness	Hole	Grade
6034-2204	RCKT1204MO-DR	0.472"	3/16"	0.157"	XAL649
6034-2607*	RCKT2006MO-DR	0.787"	1/4"	0.258"	XAL649

* Limited Supply

RCMT CARBIDE INSERTS

RCMT

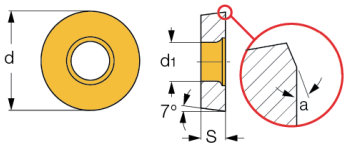
7° Positive Relief Angle - For Turning & Facing



10 PC PER PACKAGE

ANSI Insert No.	I.C.	(Inch) Thickness	Hole	Grade C-2 Item#	TiN Coated (C-6) Item#
RCMT-0602	.236	.0940	.110	6034-3012	6034-3062
RCMT-0803	.315	.1250	.134	6034-3013*	6034-3083
RCMT-10T3	.393	.1563	.173	6034-3023	6034-3103
RCMT-32	3/8	1/8	.150	----------	6034-3132
RCMT-1204	.472	.1870	.157	----------	6034-3124

* Limited Supply



Carbide grades and insert classification shown on pages 191-192

RDKW CARBIDE INSERTS

RDKW

15° Relief Angle

10 PC PER PACKAGE

Item#	ANSI Insert No.	Nose Radius	I.C.	(Inch) Thickness	Hole	Grade
6045-0803*	RDKW0803MO	.157	.315	.125	0.134	XAF798
6045-1003*	RDKW10T3MO	.197	.394	.156	0.173	XAF798
6045-1204	RDKW1204MO	.236	.472	.186	0.173	XAF798

* Limited Supply





RNMG CARBIDE FACE MILL INSERTS

RNMG

0° Relief Angle - For Turning, Plunging & Profilling

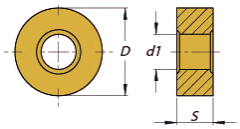
10 PC PER PACKAGE

Limited Supply!

ANSI Insert No.	ISO Insert No.	I.C.	(Inch) Thickness	Hole	Grade C-2 Item#	TiN Coated (C5) Item#
RNMG-32	RNMG0903	3/8	1/8	.150	6005-6030	----------
RNMG-43	RNMG1204	0.500	3/16	.203	----------	6005-6143
RNMG-64	RNMG1906	0.750	1/4	.312	----------	6005-6164

* Limited Supply

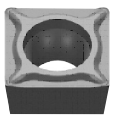


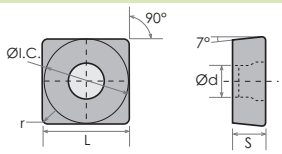


SCMT CARBIDE INSERTS

SCMT

7° Relief Angle-Single Sided





10 PC PER PACKAGE

Item#	ANSI Insert No.	ISO Insert No.	I.C.	L	(Inch) S	d	r	Grade
6004-4431*	SCMT-431	SCMT120404	1/2	1/2	3/16	7/32	.0157	C-6
6004-4432	SCMT-432	SCMT120408	1/2	1/2	3/16	7/32	.0315	C-6

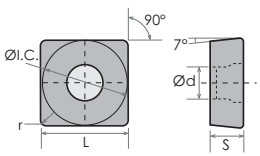
* Limited Supply

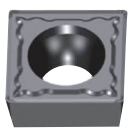
SCMT/EM SQUARE - POSITIVE RAKE CARBIDE INSERTS

SCMT-EM

EM - Semi-Finishing Geometry. Stainless Steel Material

EM - Double-side chipbreaker with M-class tolerance serves to reduce cutting force and workpiece adhesion when machining stainless steel. Possesses higher feed and depth of cut capability than EF chipbreaker.





10 PC PER PACKAGE

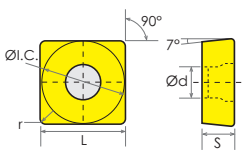
Item#	ANSI Insert No.	ISO Insert No.	I.C.	L	(Inch) S	d	r	Grade
6056-0431	SCMT-431-EM	SCMT120404EM	1/2	1/2	3/16	7/32	.0157	XAF798
6056-0432	SCMT-432-EM	SCMT120408EM	1/2	1/2	3/16	7/32	.0315	XAF798

SCMT/HM SQUARE - POSITIVE RAKE CARBIDE INSERTS

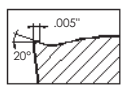
SCMT-HM

HM - Medium Geometry. Periphery Ground Insert. Mixed Production

HM - With a sharp wave cutting edge to reduce cutting force, it is the first choice for semi-finishing of internal holes and allows chips to flow smoothly.







10 PC PER PACKAGE

Item#	ANSI Insert No.	ISO Insert No.	I.C.	L	(Inch) S	d	r	Grade
6004-3030*	SCMT-21.51	SCMT060204	1/4	1/4	3/32	2.8	.0157	TiN(C6)
6004-3031	SCMT-32.51-HM	SCMT09T304HM	3/8	3/8	5/32	0.17	.0157	XAB749
6004-3032	SCMT-32.52-HM	SCMT09T308HM	3/8	3/8	5/32	0.17	.0315	XAB749
6004-3432	SCMT-432-HM	SCMT120408HM	1/2	1/2	3/16	7/32	.0315	XAB749

* Limited Supply

Carbide grades and insert classification shown on pages 191-192

CARBIDE INSERTS

SD-POSITIVE RAKE CARBIDE INSERTS

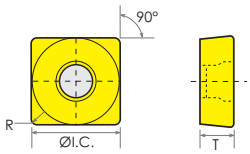
SD

11° Relief Angle-Positive Rake

TiN COATED(C-6)

10 PC PER PACKAGE





Item#	ANSI Insert No.	ISO Insert No.	I.C.	T	r
6029-2322	SD-322P	SD160308P	3/8"	1/8"	1/32"
6029-2422	SD-422P	SD220308P	1/2"	1/8"	1/32"

SEAN TiN (C5) CARBIDE INSERTS

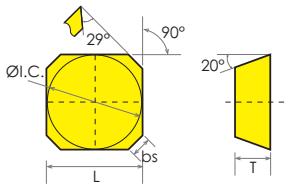
SEAN

- Square 20° positive milling insert
- Used for face mill

TiN COATED(C-5)

10 PC PER PACKAGE





Item#	ANSI Insert No.	ISO Insert No.	bs	(Inch) I.C.	T
6016-0040	SEAN-42AFN	SEAN1203AFN	.071	.500	1/8
6016-0042	SEAN-42AFTN	SEAN1203AFTN	.071	.500	1/8
6016-0043	SEAN-43AFN	SEAN1204AFN	.071	.500	3/16

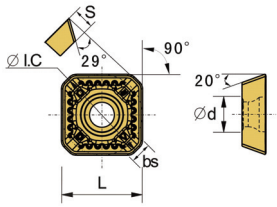
SEET/DR CARBIDE INSERT

SEET-DR

DR - Used for roughing of material. It can achieve a high rate of metal removal & a low cutting force .



10 PC PER PACKAGE

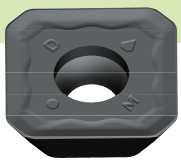


Item#	ANSI Insert No.	ISO Insert No.	I.C.	bs	S	Grade
6016-0123	SEET-42-AFER	SEET12T3-DR	.500"	.071"	.157"	XAB699

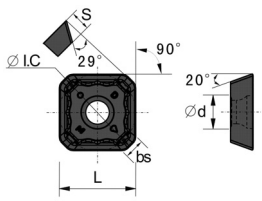
SEET/DM CARBIDE INSERT

SEET-DM

DM - Widely used chip-breaker is used for semi-finishing and finishing of steel and stainless steel



10 PC PER PACKAGE



Item#	ANSI Insert No.	ISO Insert No.	I.C.	bs	S	Grade
6016-1123	SEET-42-AFEM	SEET12T3-DM	.500"	.071"	.157"	XAB698

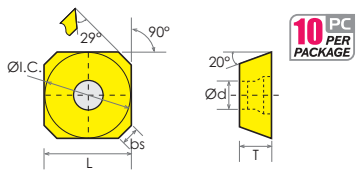
SEHT CARBIDE FACE MILL INSERT

SEHT

- 20° positive single sided chip breaker
- 4 cutting edges
- Wiper flat parallel land.

TiN COATED(C-6)





10 PC PER PACKAGE

Item#	ANSI Insert No.	ISO Insert No.	I.C.	L	bs	T	d
6017-0432	SEHT120408	SEHT-432	1/2"	1/2"	.071"	3/16"	13/64"

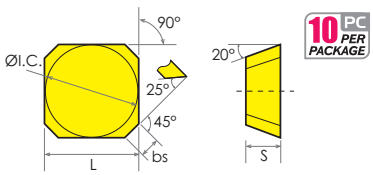
SEKN/AFTN CARBIDE FACE MILL INSERTS

SEKN

- Without chip breaker
- 20° relief angle
- Medium milling aplications.

Limited Supply!





10 PC PER PACKAGE

Item#	ANSI Insert No.	I.C.	L	bs	S	Grade
6010-0006	SEKN-1504AFTN	5/8"	5/8"	.094"	3/16"	XAL749

Carbide grades and insert classification shown on pages 191-192

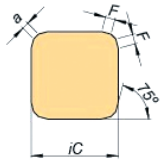
SNKN CARBIDE FACE MILL INSERTS

SNKN

Limited Supply!

10 PC PER PACKAGE

Item#	ANSI Insert No.	I.C.	F	a	S	Grade
6010-1003	SNKN-1204ENN	1/2"	0.059"	0.035"	3/16"	XAB699
6010-1006	SNKN-1504ENN	5/8"	0.059"	0.035"	3/16"	XAB699



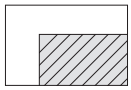


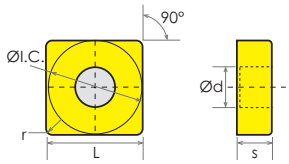
SNMA SQUARE - NEGATIVE RAKE CARBIDE INSERTS WITH HOLE

SNMA

- Square without chip breaker.
- 0° relief angle.
- Double sided.

Limited Supply!





10 PC PER PACKAGE

Item#	ANSI Insert No.	ISO Insert No.	I.C.	L	(Inch) S	d	r	Grade
6001-8433	SNMA-433	SNMA120412	1/2	1/2	3/16	13/64	.0472	XAC849
6001-8542	SNMA-542	SNMA150608	5/8	5/8	1/4	1/4	.0315	XAC849
6001-8643	SNMA-643	SNMA190612	3/4	3/4	1/4	5/16	.0472	XAC849
6001-8644	SNMA-644	SNMA190616	3/4	3/4	1/4	5/16	.0630	XAC849



SNMG TiN (C5) CARBIDE FACE MILL INSERTS

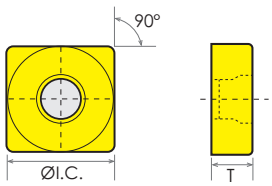
SNMG

- Square with chip breaker
- 0° relief angle
- Double sided cutting edges.
- Used for a wide range of materials and aplications.

TiN COATED(C-5)

10 PC PER PACKAGE

Item#	ANSI Insert No.	ISO Insert No.	(Inch) I.C.	T
6001-0322	SNMG-322	SNMG090308	3/8	1/8
6001-0432	SNMG-432	SNMG120408	1/2	3/16
6001-0433	SNMG-433	SNMG120412	1/2	3/16
6001-0643	SNMG-643	SNMG190612	3/4	1/4



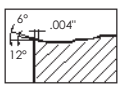


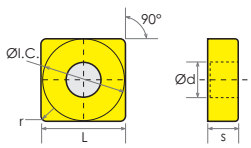
SNMG/DF SQUARE-NEGATIVE RAKE CARBIDE INSERTS

SNMG-DF

DF - For Steel Finishing

Limited Supply!







10 PC PER PACKAGE

Item#	ANSI Insert No.	ISO Insert No.	I.C.	L	S	d	r	Grade
6001-4432	SNMG-432-DF	SNMG120408DF	1/2"	1/2"	3/16"	13/64"	.0315"	XAB749
6001-4433	SNMG-433-DF	SNMG120412DF	1/2"	1/2"	3/16"	13/64"	.0472"	XAB749

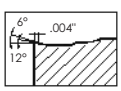
SNMG/DF BLACK DIAMOND COATED CARBIDE INSERTS

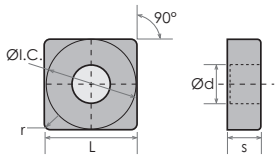
SNMG-DF

DF - For Steel Finishing

TiCNAl COATED

Limited Supply!







Item#	ANSI Insert No.	ISO Insert No.	I.C.	L	S	d	r	Grade
6035-1432	SNMG-432-DF	SNMG120408DF	1/2"	1/2"	3/16"	13/64"	.0315"	XAB848
6035-1433	SNMG-433-DF	SNMG120412DF	1/2"	1/2"	3/16"	13/64"	.0472"	XAB848

Carbide grades and insert classification shown on pages 191-192

SNMG/DM SQUARE-NEGATIVE RAKE CARBIDE INSERTS

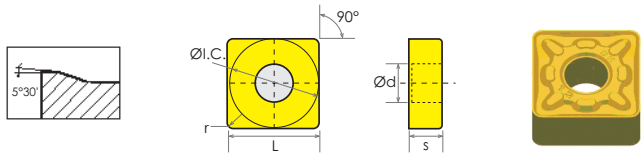
SNMG-DM

DM - For Steel Medium Machining

10 PC PER PACKAGE

DM - Widely used chip-breaker is used for semi-finishing and finishing of steel and stainless steel

Limited Supply!



Item#	ANSI Insert No.	ISO Insert No.	I.C.	L	(Inch) S	d	r	Grade
6001-5433	SNMG-433-DM	SNMG120412DM	1/2	1/2	3/16	13/64	.0472	XAB749
6001-5543	SNMG-543-DM	SNMG150612DM	5/8	5/8	1/4	1/4	.0472	XAB749

SNMG/DM BLACK DIAMOND COATED CARBIDE INSERTS

SNMG-DM

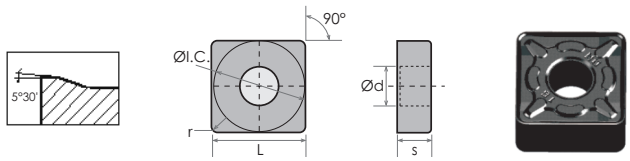
DM - For Steel Medium Machining

10 PC PER PACKAGE

DM - Widely used chip-breaker is used for semi-finishing and finishing of steel and stainless steel

Limited Supply!

TiCNAl COATED



Item#	ANSI Insert No.	ISO Insert No.	I.C.	L	(Inch) S	d	r	Grade
6035-0543	SNMG-543-DM	SNMG150612DM	5/8	5/8	1/4	1/4	.0472	XAB748
6035-0643	SNMG-643-DM	SNMG190612DM	3/4	3/4	1/4	5/16	.0472	XAB748

SNMG/DR SQUARE - NEGATIVE RAKE CARBIDE INSERTS

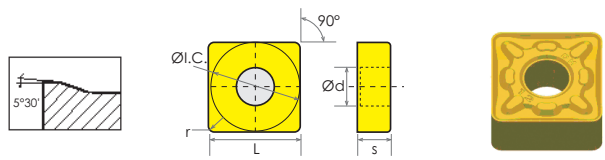
SNMG-DR

DR- For Light Roughing of Steel, Stainless Steel Material

10 PC PER PACKAGE

DR - Single-side chipbreaker with M-class tolerance has high security on cutting edge for higher removal rates and low cutting force at large cutting depth and high feed rates.

Limited Supply!



Item#	ANSI Insert No.	ISO Insert No.	I.C.	L	(Inch) S	d	r	Grade
6049-1543	SNMG-543-DR	SNMG150612DR	5/8	5/8	1/4	1/4	.0472	XAB748
6049-1544	SNMG-544-DR	SNMG150616DR	5/8	5/8	1/4	1/4	.0630	XAB748

SNMG/EF CARBIDE INSERTS

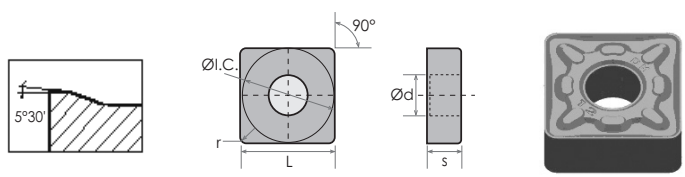
SNMG-EF

EF - For Stainless Steel, Highly Adhesive and Plastic Materials

10 PC PER PACKAGE

EF Chip-Breaker specially designed rake angle and an inclined edge angle for machining stainless steel. The edges are sharp making the cutting light and smooth, getting good control of the chips and obtaining a good surface quality, which makes it most suitable for ultra fine and fine machining of highly adhesive and plastic materials.

Limited Supply!



Item#	ANSI Insert No.	ISO Insert No.	I.C.	L	(Inch) S	d	r	Grade
6035-5432	SNMG-432-EF	SNMG120408EF	1/2	1/2	3/16	13/64	.0315	XAF798
6035-5543	SNMG-543-EF	SNMG150612EF	5/8	5/8	1/4	1/4	.0472	XAF798

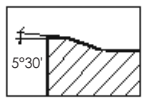
Carbide grades and insert classification shown on pages 191-192

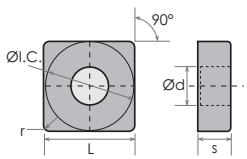
SNMG/EM SQUARE - NEGATIVE RAKE CARBIDE INSERTS

SNMG-EM

EM - Semi-Finishing Geometry. Stainless Steel Material

EM - Double-side chipbreaker with M-class tolerance serves to reduce cutting force and workpiece adhesion when machining stainless steel. Possesses higher feed and depth of cut capability than EF chipbreaker.







10 PC PER PACKAGE

Item#	ANSI Insert No.	ISO Insert No.	I.C.	L	(Inch) S	d	r	Grade
6049-0432	SNMG-432-EM	SNMG120408EM	1/2	1/2	3/16	13/64	.0315	XAF798
6049-0433	SNMG-433-EM	SNMG120412EM	1/2	1/2	3/16	13/64	.0472	XAF798
6049-0543	SNMG-543-EM	SNMG150612EM	5/8	5/8	1/4	1/4	.0472	XAF798

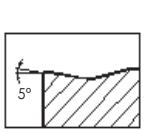
SNMG/PM SQUARE - NEGATIVE RAKE CARBIDE INSERTS

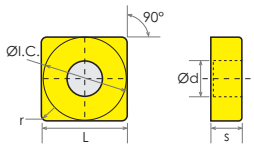
SNMG-PM

PM - Suitable for Mixed Production

PM - With stronger cutting edge, it is better for intermittent cutting than -DM, with wider cutting zone of steel materials

Limited Supply!







10 PC PER PACKAGE

Item#	ANSI Insert No.	ISO Insert No.	I.C.	L	(Inch) S	d	r	Grade
6001-6432	SNMG-432-PM	SNMG120408PM	1/2	1/2	3/16	13/64	.0315	XAB749
6001-6433	SNMG-433-PM	SNMG120412PM	1/2	1/2	3/16	13/64	.0472	XAB749
6001-6434	SNMG-434-PM	SNMG120416PM	1/2	1/2	3/16	13/64	.0630	XAB749
6001-6543	SNMG-543-PM	SNMG150612PM	5/8	5/8	1/4	1/4	.0472	XAB749

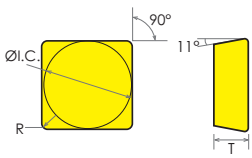
SPG CARBIDE INSERTS

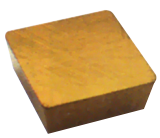
SPG

C-6 for all steel and general purpose
TiN Coated for high heat & wear resistance on alloys, stainless steel & ductile iron

TiN Coated(C-6)

10 PC PER PACKAGE





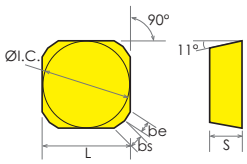
Item#	ANSI Insert No.	I.C.	(Inch) T	R
6021-2422	SPG-422	1/2	1/8	1/32
6021-2432	SPG-432	1/2	3/16	1/32

SPKN/ED CARBIDE FACE MILL INSERTS

SPKN

- **Used** for milling
- **11°** relief angle





10 PC PER PACKAGE

Item#	ANSI Insert No.	Feeding Direction	I.C.	L	(Inch) bs	be	s	Grade
6010-2004	SPKN-1203EDR	Right	5/8	1/2	0.055	0.039	1/8	XAB699
6010-2009*	SPKN-1504EDL	Left	5/8	5/8	0.055	0.039	3/16	XAB699
6010-2010	SPKN-1504EDR	Right		5/8	0.055	0.039	3/16	XAB699

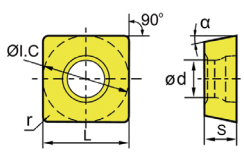
* Limited Supply

SPMT CARBIDE INSERT

SPMT

- Screw on style.
- Single sided with chip breaker.
- -11° relief.

10 PC PER PACKAGE





Item#	ANSI Insert No.	ISO Insert No.	I.C.	(Inch) S	d	r	Grade
6018-3251	SPMT32.51	SPMT09T304	3/8	5/32	0.173	0.0156	TiN
6018-3252	SPMT32.52	SPMT09T308	3/8	5/32	0.173	0.031	TiN

Carbide grades and insert classification shown on pages 191-192

CARBIDE INSERTS

SPU CARBIDE INSERTS

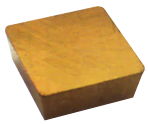
SPU

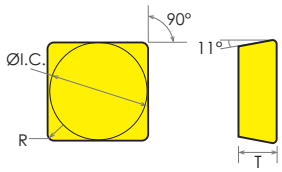
C-6 for all steel and general purpose
TiN Coated for high heat & wear resistance on alloys, stainless steel & ductile iron

10 PC PER PACKAGE

ANSI Insert No.	I.C.	T	R	C-6 Item#	TiN Coated(C-6) Item#
SPU-322	3/8"	1/8"	1/32"	-------	6022-2322*
SPU-422	1/2"	1/8"	1/32"	6022-1422	-------
SPU-633	3/4"	3/16"	3/64"	6022-1633*	-------

* Limited Supply





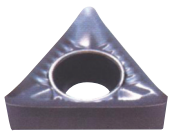
TCGX/LH CARBIDE INSERTS FOR ALUMINUM ALLOY

TCGX-LH

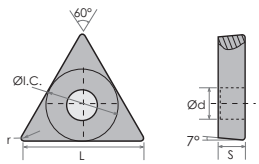
LH Chip-Breaker is more suitable for machining aluminum alloy with larger cutting depth and higher feed rate

Limited Supply!

10 PC PER PACKAGE



Item#	ANSI Insert No.	ISO Insert No.	I.C.	(Inch) L	S	d	r	Grade
6057-0100	TCGX1.8(1.5)0-LH	TCGX090202-LH	7/32	.378	3/32	.098	.008	XC899
6057-0101	TCGX1.8(1.5)1-LH	TCGX090204-LH	7/32	.378	3/32	.098	.016	XC899
6057-0110	TCGX2(1.5)0-LH	TCGX110202-LH	1/4	.433	3/32	.110	.008	XC899
6057-0112	TCGX2(1.5)2-LH	TCGX110208-LH	1/4	.433	3/32	.110	.031	XC899
6057-0221	TCGX3(2.5)1-LH	TCGX16T304-LH	3/8	.650	5/32	.173	.016	XC899
6057-0222	TCGX3(2.5)2-LH	TCGX16T308-LH	3/8	.650	5/32	.173	.031	XC899



TCMT TRIANGLE - POSITIVE RAKE CARBIDE INSERTS

TCMT

- Single sided for semi-finishing.
- 7° relief angle
- Triangle with chipbreaker.

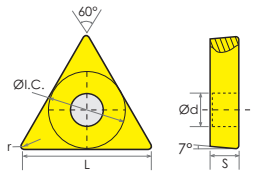
TiN COATED (C-6)

10 PC PER PACKAGE



Item#	ANSI Insert No.	ISO Insert No.	I.C.	(Inch) L	S	d	r
6004-9020	TCMT-1.8(1.5)	TCMT090204	0.219	0.378	0.094	0.098	0.016
6004-9021	TCMT-21.51	TCMT110204	1/4	7/16	3/32	7/64	.0157
6004-9022	TCMT-21.52	TCMT110208	1/4	7/16	3/32	7/64	.0315
6004-9018*	TCMT1.2(1.2)1L	TCMT06T104L	0.156	0.272	0.078"	0.071"	0.016
6004-9024	TCMT221L	TCMT110304L	0.250	0.41	0.126"	0.125"	.0157
6004-9031	TCMT-32.51	TCMT16T304	3/8	5/8	5/32	0.17	.0157
6004-9032	TCMT-32.52	TCMT16T308	3/8	5/8	5/32	0.17	.0315
6004-6141	TCMT-431	TCMT220404	1/2	7/8	3/16	0.22	.0157
6004-6142	TCMT-432	TCMT220408	1/2	7/8	3/16	0.22	.0315

* Limited Supply



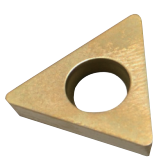
TDEX 60° TRIANGLE CARBIDE INSERTS

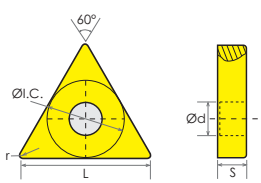
TDEX

- 60° indexiable dovetail milling cutter
- Honed edge allows for a heavier cuts.
- For special applications
- 3 cutting edges.

TiN (C5) COATED

10 PC PER PACKAGE





Item#	ANSI Insert No.	ISO Insert No.	I.C.	(Inch) L	S	d	r	TiN Coated Grade
6062-0215	TDEX 21.5	TDEX110204	1/4	7/16	3/32	7/64	.0157	C-5
6062-0320	TDEX32	TDEX16T308	3/8	5/8	5/32	0.17	.0315	C-5
6062-0430	TDEX43	TDEX220408	1/2	7/8	3/16	0.22	.0315	C-5

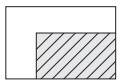
Carbide grades and insert classification shown on pages 191-192

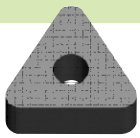
TNMA TRIANGLE - NEGATIVE RAKE CARBIDE INSERTS

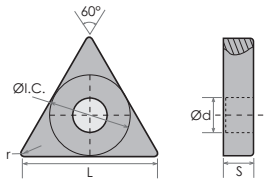
TNMA

11° Relief Angle, Flat Top Insert

Limited Supply!







Item#	ANSI Insert No.	ISO Insert No.	I.C.	L	(Inch) S	d	r	Grade
6002-6332	TNMA-332	TNMA160408	3/8	5/8	3/16	0.15	.0315	XAC849
6002-6432	TNMA-432	TNMA220408	1/2	7/8	3/16	13/64	.0315	XAC849

10 PC PER PACKAGE

TNMC GROOVING CARBIDE INSERTS

TNMC

- Right hand on two sides.
- Neutral rake angle.
- Double countersink thu hole.
- TiN coated.

Limited Supply!

TiN Coated



10 PC PER PACKAGE

Item#	Insert No.	I.C. (In)	Pitch	Groove Width (In)	Groove Depth (In)
6043-0632	TNMC-32NGR031	0.375	8 TPI Max.	.031	.075
6043-0633	TNMC-32NGR062	0.375	8 TPI Max.	.062	.150
6043-0634	TNMC-32NGR094	0.375	8 TPI Max.	.094	.150
6043-0635	TNMC-32NGR125	0.375	8 TPI Max.	.125	.150
6043-0643	TNMC-43NGR062	0.500	6 TPI Max.	.062	.125
6043-0644	TNMC-43NGR094	0.500	6 TPI Max.	.094	.150
6043-0645	TNMC-43NGR125	0.500	6 TPI Max.	.125	.210
6043-0646	TNMC-43NGR156	0.500	6 TPI Max.	.156	.210
6043-0654	TNMC-54NGR250	0.625	4 TPI Max.	.250	.210

TNMG TRIANGLE - NEGATIVE RAKE CARBIDE INSERTS

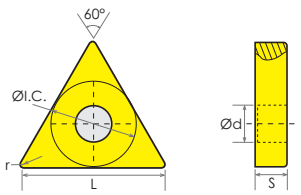
TNMG

- Triangle with chipbreaker
- 0° relief angle

TiN (C5) COATED



10 PC PER PACKAGE



Item#	ANSI Insert No.	ISO Insert No.	I.C.	L	(Inch) S	d	r
6002-0001	TNMG-221	TNMG110304	1/4	7/16	1/8	.093	.0157
6002-0002	TNMG-222	TNMG110308	1/4	7/16	1/8	.093	.0315
6002-0011	TNMG-321	TNMG160404	3/8	5/8	1/8	0.15	.0157
6002-0013	TNMG-323	TNMG160412	3/8	5/8	1/8	0.15	.0472
6002-0021	TNMG-431	TNMG220404	1/2	7/8	3/16	13/64	.0157
6002-0022	TNMG-432	TNMG220408	1/2	7/8	3/16	13/64	.0315
6002-0024	TNMG-434	TNMG220416	1/2	7/8	3/16	13/64	.0630

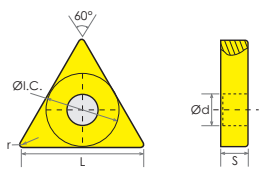
TNMG TRIANGLE - NEGATIVE RAKE CARBIDE INSERTS

TNMG

0° Relief Angle, Molded Chipbraker

Limited Supply!





10 PC PER PACKAGE

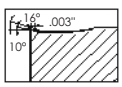
Item#	ANSI Insert No.	ISO Insert No.	I.C.	L	(Inch) S	d	r	Grade
6002-3434	TNMG-434	TNMG220416	1/2	7/8	3/16	13/64	.0630	XAB749
6002-2543	TNMG-543	TNMG270612	5/8	1.08	1/4	1/4	.0472	XAB749
6002-2544	TNMG-544	TNMG270616	5/8	1.08	1/4	1/4	.0630	XAB749

TNMG/DF TRIANGLE - NEGATIVE RAKE CARBIDE INSERTS

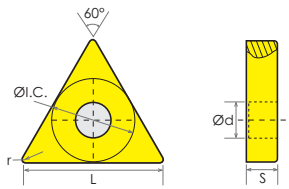
TNMG-DF

DF - For Steel Finishing

Limited Supply!







10 PC PER PACKAGE

Item#	ANSI Insert No.	ISO Insert No.	I.C.	L	(Inch) S	d	r	Grade
6001-9333	TNMG-333-DF	TNMG160412DF	3/8	5/8	3/16	0.15	.0472	XAB849
6001-9433	TNMG-433-DF	TNMG220412DF	1/2	7/8	3/16	13/64	.0472	XAB849

Carbide grades and insert classification shown on pages 191-192

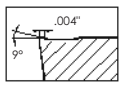
TNMG/DM BLACK DIAMOND CARBIDE INSERTS

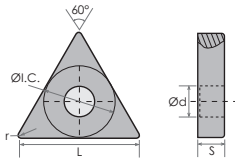
TNMG-DM

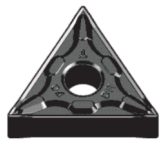
DM - For Steel Medium Machining

TiCNAI COATED

DM - Widely used chipbreaker is used for semi-finishing and finishing of steel and stainless steel.







10 PC PER PACKAGE

Item#	ANSI Insert No.	ISO Insert No.	I.C.	L	(Inch) S	d	r	Grade
6036-1222	TNMG-222-DM	TNMG110308DM	1/4	7/16	1/8	0.09	.0157	XAB748
6036-1331	TNMG-331-DM	TNMG160404DM	3/8	5/8	3/16	0.15	.0157	XAB748
6036-1332	TNMG-332-DM	TNMG160408DM	3/8	5/8	3/16	0.15	.0315	XAB748
6036-1333*	TNMG-333-DM	TNMG160412DM	3/8	5/8	3/16	0.15	.0472	XAB748
6036-1432	TNMG-432-DM	TNMG220408DM	1/2	7/8	3/16	13/64	.0315	XAB748
6036-1433*	TNMG-433-DM	TNMG220412DM	1/2	7/8	3/16	13/64	.0472	XAB748
6036-1434*	TNMG-434-DM	TNMG220416DM	1/2	7/8	3/16	13/64	.0630	XAB748

*Limited Supply

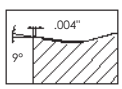
TNMG/DM TRIANGLE - NEGATIVE RAKE CARBIDE INSERTS

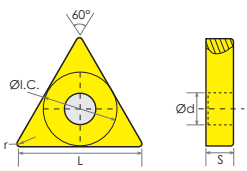
TNMG-DM

DM - For Steel Medium Machining

Limited Supply!

DM - Widely used chipbreaker is used for semi-finishing and finishing of steel and stainless steel.







10 PC PER PACKAGE

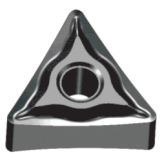
Item#	ANSI Insert No.	ISO Insert No.	I.C.	L	(Inch) S	d	r	Grade
6002-0222	TNMG-222-DM	TNMG110308DM	1/4	7/16	1/8	0.09	.0157	XAB749
6002-0331	TNMG-331-DM	TNMG160404DM	3/8	5/8	3/16	0.15	.0157	XAB749
6002-0333	TNMG-333-DM	TNMG160412DM	3/8	5/8	3/16	0.15	.0472	XAB749
6002-0433	TNMG-433-DM	TNMG220412DM	1/2	7/8	3/16	13/64	.0472	XAB749
6002-0434	TNMG-434-DM	TNMG220416DM	1/2	7/8	3/16	13/64	.0630	XAB749

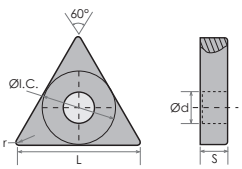
TNMG/EF - CARBIDE INSERTS

TNMG-EF

EF - For Stainless Steel, Highly Adhesive and Plastic Materials

EF Chip-Breaker specially designed rake angle and an inclined edge angle for machining stainless steel. The edges are sharp making the cutting light and smooth, getting a good control of the chips and obtaining a good surface quality, which makes it most suitable for ultra fine and fine machining of highly adhesive and plastic materials.





10 PC PER PACKAGE

Item#	ANSI Insert No.	ISO Insert No.	I.C.	L	(Inch) S	d	r	Grade
6036-5332	TNMG-332-EF	TNMG160408EF	3/8	5/8	3/16	0.15	.0315	XAF798
6036-5333*	TNMG-333-EF	TNMG160412EF	3/8	5/8	3/16	0.15	.0472	XAF798
6036-5432	TNMG-432-EF	TNMG220408EF	1/2	7/8	3/16	13/64	.0315	XAF798
6036-5433*	TNMG-433-EF	TNMG220412EF	1/2	7/8	3/16	13/64	.0472	XAF798

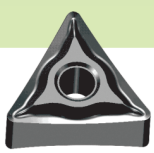
* Limited Supply

TNMG/EM TRIANGLE - NEGATIVE RAKE CARBIDE INSERTS

TNMG-EM

EM - Semi-Finishing Geometry. Stainless Steel Material

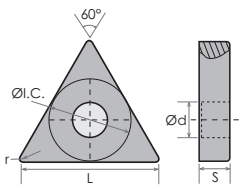
EM -Double-side chipbreaker with M-class tolerance serves to reduce cutting force and workpiece adhesion when machining stainless steel. Possesses higher feed and depth of cut capability than EF chipbreaker.



10 PC PER PACKAGE

Item#	ANSI Insert No.	ISO Insert No.	I.C.	L	(Inch) S	d	r	Grade
6050-0331*	TNMG-331-EM	TNMG160404EM	3/8	5/8	1/8	0.15	.0157	XAF795
6050-0332	TNMG-332-EM	TNMG160408EM	3/8	5/8	1/8	0.15	.0315	XAF795
6050-0432	TNMG-432-EM	TNMG220408EM	1/2	7/8	3/16	13/64	.0315	XAF795
6050-0433*	TNMG-433-EM	TNMG220412EM	1/2	7/8	3/16	13/64	.0472	XAF795

* Limited Supply



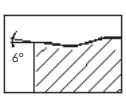
Carbide grades and insert classification shown on pages 191-192

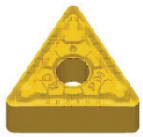
TNMG/PM TRIANGLE - NEGATIVE RAKE CARBIDE INSERTS

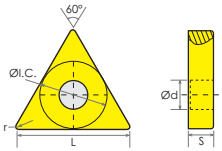
TNMG-PM

PM - Suitable for Mixed Production

PM - With stronger cutting edge, it is better for intermittent cutting than -DM, with wider cutting zone of steel materials







10 PC PER PACKAGE

Item#	ANSI Insert No.	ISO Insert No.	I.C.	L	(Inch) S	d	r	Grade
6002-1222	TNMG-222-PM	TNMG110308PM	1/4	7/16	1/8	0.09	.0157	XAB749
6002-1331*	TNMG-331-PM	TNMG160404PM	3/8	5/8	3/16	0.15	.0157	XAB749
6002-1332	TNMG-332-PM	TNMG160408PM	3/8	5/8	3/16	0.15	.0315	XAB749
6002-1333*	TNMG-333-PM	TNMG160412PM	3/8	5/8	3/16	0.15	.0472	XAB749
6002-1433*	TNMG-433-PM	TNMG220412PM	1/2	7/8	3/16	13/64	.0472	XAB749
6002-1434*	TNMG-434-PM	TNMG220416PM	1/2	7/8	3/16	13/64	.0630	XAB749

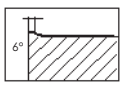
*Limited Supply

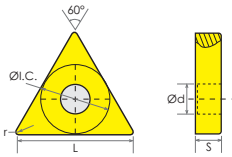
TNMM TRIANGLE - NEGATIVE RAKE CARBIDE INSERTS

TNMM

0° Relief Angle, Chipbreaker

Limited Supply!







10 PC PER PACKAGE

Item#	ANSI Insert No.	ISO Insert No.	I.C.	L	(Inch) S	d	r	Grade
6002-5332	TNMM-332	TNMM160408	3/8	5/8	1/8	0.15	.0315	XAB749
6002-5432	TNMM-432	TNMM220408	1/2	7/8	3/16	13/64	.0315	XAB749
6002-5433	TNMM-433	TNMM220412	1/2	7/8	3/16	13/64	.0472	XAB749

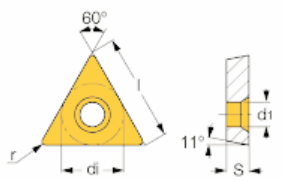
TPGB CARBIDE INSERTS 11° Positive Single Sided

TPGB

- TPGB for machinging short chip materials without chipbreaker.
- With countersunk hole.
- Fits popular boring bar & turning tool holders.

TiN COATED(C6)

10 PC PER PACKAGE





Item#	ANSI Insert No.	I.C.	Thick (In)	Hole (In)
6025-0251	TPGB-21.51	1/4"	.094	.118
6025-0321	TPGB-321	3/8"	.125	.125
6025-0322	TPGB-322	3/8"	.125	.125
6025-0431	TPGB-431	1/2"	.188	.220
6025-0432	TPGB-432	1/2"	.188	.220

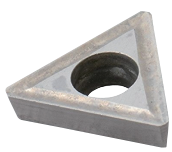
TPGH - POSITIVE RAKE CARBIDE INSERTS

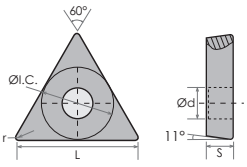
TPGH

- Single sided with chipbreaker.
- 11° relief angle.
- Suitable for turning, facing and boring.

GRADE C-2 FOR CAST IRON AND GENERAL PURPOSE
GRADE C-6 FOR ALL STEEL AND GENERAL PURPOSE

10 PC PER PACKAGE





Insert No. ANSI	Insert No. ISO	I.C.	(Inch) S	r	Hole d	C-2 Item#	C-5 Item#	TiN-55 (C-6) Item#
TPGH-731	----------	7/32	3/32	1/64	.098	---	2003-0010	2003-0020
TPGH-21.51	TPGH110204	1/4	0.094	1/64	.110	6025-0011	2003-0011	2003-0021
TPGH-32.51	TPGH16T304	3/8	5/32	1/64	.173	6025-0014	2003-0014	2003-0023
TPGH-321	TPGH160304	3/8	1/8	1/64	.173	---	6025-1321	6025-2321
TPGH-322	TPGH160308	3/8	1/8	1/32	.173	---	6025-1322	6025-2322

*Limited Supply

Carbide grades and insert classification shown on pages 191-192

TPGN - POSITIVE RAKE CARBIDE INSERTS (TPG)

TPG

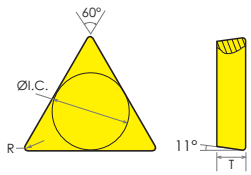
- Single sided without chipbreaker.
- 11° relief angle.
- Suitable for difficult to cut materials.

GRADE C-2 FOR CAST IRON AND GENERAL PURPOSE
GRADE C-6 FOR ALL STEEL AND GENERAL PURPOSE

10 PC PER PACKAGE

ANSI Insert No.	I.C.	(Inch) T	R	Uncoated C-2 Item#	Uncoated C-6 Item#	TiN Coated(C-6) Item#
TPG-21.51	1/4	.094	1/64	--------	--------	6020-1121
TPG-221	1/4	1/8	1/64	6020-2221	--------	6020-1221
TPG-222	1/4	1/8	1/32	6020-2222	6020-0222	6020-1222
TPG-223	1/4	1/8	3/64	---------	6020-0223*	6020-1223*
TPG-32.51	3/8	5/32	1/64	---------	--------	6020-1122*
TPG-321	3/8	1/8	1/64	6020-2321	6020-0321	6020-1321
TPG-322	3/8	1/8	1/32	6020-2322	6020-0322	6020-1322
TPG-323	3/8	1/8	3/64	6020-2323*	6020-0323	6020-1323
TPG-324	3/8	1/8	1/16	6020-2324*	--------	6020-1324
TPG-332	3/8	15/32	5/32	---------	--------	6004-9332
TPG-431	1/2	3/16	1/64	6020-2431*	--------	6020-1431
TPG-432	1/2	3/16	1/32	---------	--------	6020-1432
TPG-433	1/2	3/16	3/64	---------	6020-0433*	6020-1433*
TPG-434	1/2	3/16	1/16	6020-2434*	6020-0434*	6020-1434*





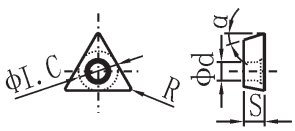
* Limited Supply

TPGW CARBIDE INSERT 11° Positive Single Sided

TPGW

- 11° clearance angle.
- Positive insert shape.
- Screw on style.
- Fits many popular boring bar & turning tool holders.
- For machining short chip materials without a chipbreaker.

TiN (C6) coated





10 PC PER PACKAGE

Item#	ANSI Insert No.	ISO Insert No.	I.C.	Thickness S	(Inch) Corner Radius R	Hole Size d	Grade
6025-0222*	TPGW-222	TPGW110308	0.250	.125	.0315	0.110	TiN(C6)
6025-3321	TPGW-321	TPGW160304	0.375"	.125	.0157	0.173	TiN(C6)
6025-3322	TPGW-322	TPGW160308	0.375"	.125	.0315	0.173	TiN(C6)
6025-4432*	TPGW-432	TPGW220408	0.500"	.187	.0315	0.217	TiN(C6)

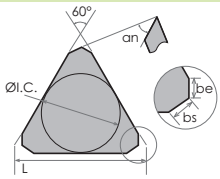
* Limited Supply

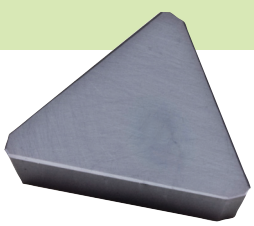
TPKN CARBIDE MILLING INSERTS

TPKN

- For 90° mills.
- Wedge held inserts.
- 3 Indexes.

11° Relief Angle





10 PC PER PACKAGE

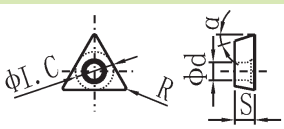
Item#	ANSI Insert No.	I.C.	L	bs	be	an	S	Grade
6010-5003	TPKN-1603PDR	3/8"	5/8"	0.047"	0.039"	15°	1/8"	XB970R
6010-5010*	TPKN-2204PDL	1/2"	7/8"	0.055"	0.028"	15°	3/16"	XB970R
6010-5011	TPKN-2204PDR	1/2"	7/8"	0.055"	0.028"	15°	3/16"	XB970R

* Limited Supply

TT/TPMM- POSITIVE RAKE CARBIDE INSERTS

TT/TPMM

- Single sided with chipbreaker.
- 11° relief angle.
- Suitable for turning, facing and boring.





10 PC PER PACKAGE

Insert No. ANSI	Insert No. ISO	I.C.	(Inch) S	R	d	C-2 Item#	C-5 Item#	TiN Coated(C-6) Item#
TPMM-321	TPMM160304	3/8	1/8	1/64	.150	6026-0321	6026-1321	6026-2321
TPMM-322	TPMM160308	3/8	1/8	1/32	.150	6026-0322	6026-1322	6026-2322
TPMM-431	TPMM220404	1/2	3/16	1/64	.203	6026-0431	6026-1431	6026-2431
TPMM-432	TPMM220408	1/2	3/16	1/32	.203	6026-0432*	----------	6026-2432

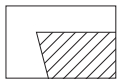
* Limited Supply

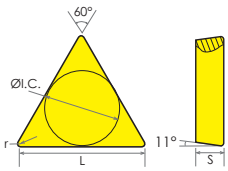
Carbide grades and insert classification shown on pages 191-192

TPUN - POSITIVE RAKE CARBIDE INSERTS WITHOUT HOLE

TPUN

Limited Supply!







10 PC PER PACKAGE

Item#	ANSI Insert No.	ISO Insert No.	I.C.	(Inch) L	(Inch) S	r	Grade
6005-2321	TPUN-321	TPUN160304	3/8	5/8	1/8	.0157	XAC849
6005-2323	TPUN-323	TPUN160312	3/8	5/8	1/8	.0472	XAC849
6005-2432	TPUN-432	TPUN220408	1/2	7/8	3/16	.0157	XAC849
6005-2433	TPUN-433	TPUN220412	1/2	7/8	3/16	.0315	XAC849
6005-2434	TPUN-434	TPUN220416	1/2	7/8	3/16	.0472	XAC849

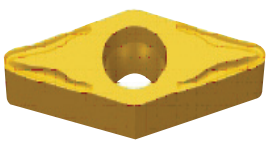
VBMT/HM 35° DIAMOND - POSITIVE RAKE CARBIDE INSERTS

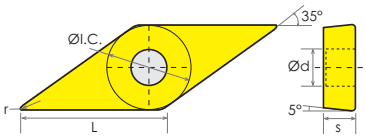
VBMT-HM

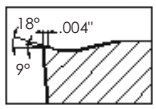
HM - Medium Geometry. Periphery Ground Insert. Mixed Production

10 PC PER PACKAGE

HM - With sharp wave cutting edge to reduce cutting force, it is the first choice for semi-finishing of internal holes and allows chips to flow smoothly.







Item#	ANSI Insert No.	ISO Insert No.	I.C.	(Inch) S	d	r	Grade
6005-2331	VBMT-331-HM	VBMT160404HM	3/8	3/16	.17	.0157	XAB749
6005-2332	VBMT-332-HM	VBMT160408HM	3/8	3/16	.17	.0315	XAB749

VBMT/EM 35° DIAMOND - POSITIVE RAKE CARBIDE INSERTS

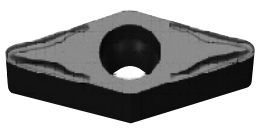
VBMT-EM

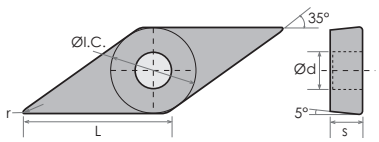
EM - Semi-Finishing Geometry. Stainless Steel Material

10 PC PER PACKAGE

Limited Supply!

EM - Double-side chipbreaker with M-class tolerance serves to reduce cutting force and workpiece adhesion when machining stainless steel. Possesses higher feed and depth of cut capability than EF chipbreaker.





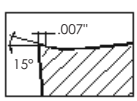
Item#	ANSI Insert No.	ISO Insert No.	I.C.	L	(Inch) S	d	r	Grade
6059-0221	VBMT-0221-EM	VBMT110304EM	1/4	.017	1/8	0.11	.0157	XAF795
6059-0222	VBMT-0222-EM	VBMT110308EM	1/4	.017	1/8	0.11	.0315	XAF795

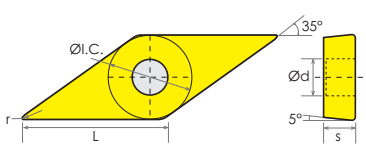
VCMT Tin 35° DIAMOND - POSITIVE RAKE CARBIDE INSERT

VCMT

- Tin coated, C-6 grade.

10 PC PER PACKAGE









Item#	ANSI Insert No.	I.C.	L	(Inch) S	d	r
6005-3403	VCMT21.51	0.250	0.41	0.10	0.106	.0157

Carbide grades and insert classification shown on pages 191-192

VCGX/LH CARBIDE INSERTS FOR ALUMINUM ALLOY

VCGX-LH

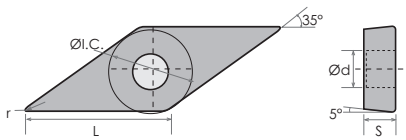
LH Chip-Breaker is more suitable for machining aluminum alloy with larger cutting depth and higher feed rate

Limited Supply!



10 PC PER PACKAGE

Item#	ANSI Insert No.	ISO Insert No.	I.C.	(Inch) L	S	d	r	Grade
6058-0111	VCGX2(1.5)1-LH	VCGX110104-LH	1/4	.433	3/32	.110	.016	XC899
6058-0221	VCGX-221-LH	VCGX110204-LH	1/4	.433	1/8	.110	.016	XC899
6058-0222	VCGX-222-LH	VCGX110208-LH	1/4	.433	1/8	.110	.031	XC899
6058-0332	VCGX-332-LH	VCGX160408-LH	3/8	.650	3/16	.173	.031	XC899

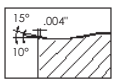


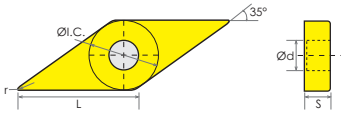
VNMG/DF 35° DIAMOND - NEGATIVE RAKE CARBIDE INSERTS

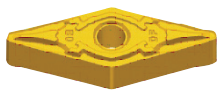
VNMG-DF

DF - For Steel Finishing

Limited Supply!







10 PC PER PACKAGE

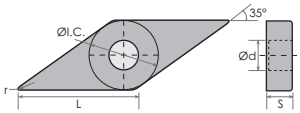
Item#	ANSI Insert No.	ISO Insert No.	I.C.	L	S	d	r	Grade
6002-7332	VNMG-332-DF	VNMG160408DF	3/8	5/8	3/16	0.15"	.0315"	XAB849

VNMG/EF 35° - CARBIDE INSERTS

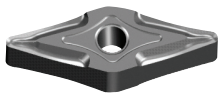
VNMG-EF

EF - For Stainless Steel, Highly Adhesive and Plastic Materials

EF Chip - Breaker specially designed rake angle and an inclined edge angle for machining stainless steel. The edges are sharp making the cutting light and smooth, getting a good control of the chips and obtaining a good surface quality, which makes it most suitable for ultra fine and fine machining of highly adhesive and plastic materials.



Limited Supply!



10 PC PER PACKAGE

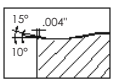
Item#	ANSI Insert No.	ISO Insert No.	I.C.	L	S	d	r	Grade
6038-5333	VNMG-333-EF	VNMG160412EF	3/8	5/8	3/16	0.15"	.0472"	XAF798

VNMG/EM 35° DIAMOND - NEGATIVE RAKE CARBIDE INSERTS

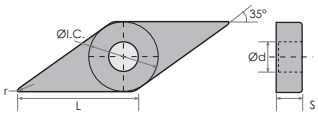
VNMG-EM

EM - Semi-Finishing Geometry. Stainless Steel Material

EM - Double-side chipbreaker with M-class tolerance serves to reduce cutting force and workpiece adhesion when machining stainless steel. Possesses higher feed and depth of cut capability than EF chipbreaker.







10 PC PER PACKAGE

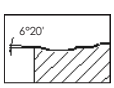
Item#	ANSI Insert No.	ISO Insert No.	I.C.	L	(Inch) S	d	r	Grade
6051-0331	VNMG-331-EM	VNMG160404EM	3/8	5/8	3/16	0.15	.0157	XAF795
6051-0332	VNMG-332-EM	VNMG160408EM	3/8	5/8	3/16	0.15	.0315	XAF795

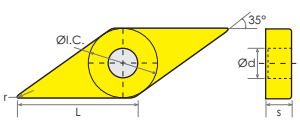
VNMG/PM 35° - CARBIDE INSERTS

VNMG-PM

PM - Suitable for Mixed Production

PM - With stronger cutting edge, it is better for intermittent cutting than -DM, with wider cutting zone of steel materials







10 PC PER PACKAGE

Item#	ANSI Insert No.	ISO Insert No.	I.C.	L	(Inch) S	d	r	Grade
6002-9331	VNMG-331-PM	VNMG160404PM	3/8	5/8	3/16	0.15	.0157	XAB749
6002-9332	VNMG-332-PM	VNMG160408PM	3/8	5/8	3/16	0.15	.0315	XAB749
6002-9333*	VNMG-333-PM	VNMG160412PM	3/8	5/8	3/16	0.15	.0472	XAB749

*Limited Supply

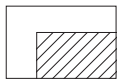
Carbide grades and insert classification shown on pages 191-192

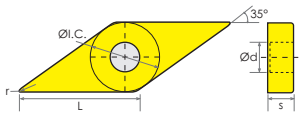
VNMS-TiN(C5) - CARBIDE INSERT

VNMS

- Double sided with chipbreaker
- 35° relief angle
- Used for turning and finishing on a wide range of materials.

Limited Supply!







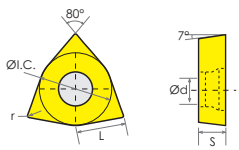
10 PC PER PACKAGE

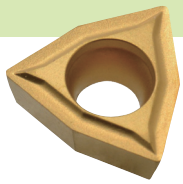
Item#	ANSI Insert No.	ISO Insert No.	I.C.	L	S	d	r	Grade
6040-1332	VNMS-332	VNMS160408	3/8	5/8	3/16	0.15"	.0315"	TiN(C-5)

WCMT 80° TRIGON CARBIDE DRILLING INSERTS

WCMT

- Trigon 80° drilling insert.
- Positive rake.
- Chipbreaker.





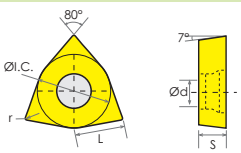
10 PC PER PACKAGE

Item#	ANSI Insert No.	I.C.	L	S	d	r	Grade
2002-0130	WCMT050308	5/16"	0.21"	1/8"	.126"	.0315"	TiN(C6)
2002-0126	WCMT06T304	3/8"	0.26"	5/32"	.173"	.0157"	TiN(C6)
2002-0128	WCMT06T308	3/8"	0.26"	5/32"	.173"	.0315"	TiN(C6)

WCMX 80° TRIGON CARBIDE DRILLING INSERTS

WCMX

- Trigon 80° drilling insert.
- Positive rake.
- Chipbreaker.





10 PC PER PACKAGE

Item#	ANSI Insert No.	I.C.	L	S	d	r	Grade
6015-0001*	WCMX030208-53	7/32"	0.15"	3/32"	7/64"	.0315"	XAF799
6015-0004	WCMX040208R-53	1/4"	0.17"	3/32"	.122"	.0315"	XAF799
6015-0005	WCMX050308R-53	5/16"	0.21"	1/8"	1/8"	.0315"	XAF799
6015-0008	WCMX06T308R-53	3/8"	0.26"	5/32"	.146"	.0315"	XAF799

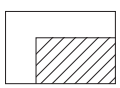
* Limited Supply

WNMA 80° TRIGON - NEGATIVE RAKE CARBIDE DRILLING INSERTS

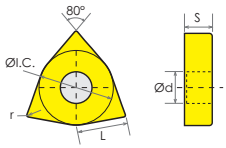
WNMA

- Used for negative tool holders & boring bars.
- Trigon 80° drilling insert.
- No chipbreaker.
- 0° relief angle.

Limited Supply!







10 PC PER PACKAGE

Item#	ANSI Insert No.	ISO Insert No.	I.C.	L	S	d	r	Grade
6003-1431	WNMA-431	WNMA080404	1/2"	0.343"	3/16"	13/64"	.0157"	XAC849
6003-1433	WNMA-433	WNMA080412	1/2"	0.343"	3/16"	13/64"	.0472"	XAC849

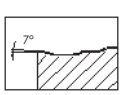
WNMG/DM 80° TRIGON BLACK DIAMOND COATED CARBIDE INSERTS

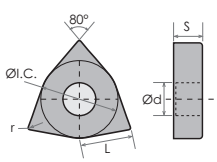
WNMG-DM

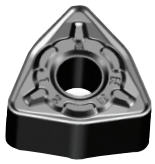
DM - For Steel Medium Machining

DM - Widely used chipbreaker is used for semi-finishing and finishing of steel and stainless steel.

TiCNAI COATED







10 PC PER PACKAGE

Item#	ANSI Insert No.	ISO Insert No.	I.C.	L	(Inch) S	d	r	Grade
6039-1431	WNMG-431-DM	WNMG080404DM	1/2	0.343	3/16	13/64	.0157	XAB748
6039-1432	WNMG-432-DM	WNMG080408DM	1/2	0.343	3/16	13/64	.0315	XAB748

Carbide grades and insert classification shown on pages 191-192

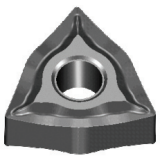
CARBIDE INSERTS

WNMG/EF 80° TRIGON- CARBIDE INSERTS

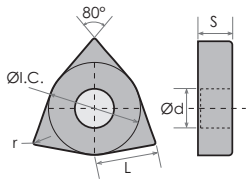
WNMG-EF

EF - For Stainless Steel, Highly Adhesive and Plastic Materials

EF Chip-Breaker specially designed rake angle and an inclined edge angle for machining stainless steel. The edges are sharp making the cutting light and smooth, getting a good control of the chips and obtaining a good surface quality, which makes it most suitable for ultra fine and fine machining of highly adhesive and plastic materials.



10 PC PER PACKAGE



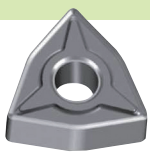
Item#	ANSI Insert No.	ISO Insert No.	I.C.	(Inch) L	S	d	r	Grade
6039-5431	WNMG-431-EF	WNMG080404EF	1/2	0.343	3/16	13/64	.0157	XAF798
6039-5432	WNMG-432-EF	WNMG080408EF	1/2	0.343	3/16	13/64	.0315	XAF798

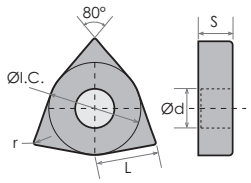
WNMG/EM 80° TRIGON- NEGATIVE RAKE CARBIDE INSERTS

WNMG-EM

EM - Semi-Finishing Geometry. Stainless Steel Material

EM - Double-side chipbreaker with M-class tolerance serves to reduce cutting force and workpiece adhesion when machining stainless steel. Possesses higher feed and depth of cut capability than EF chipbreaker.





10 PC PER PACKAGE

Item#	ANSI Insert No.	ISO Insert No.	I.C.	(Inch) L	S	d	r	Grade
6052-0332	WNMG-332-EM	WNMG060408EM	3/8	0.256	0.187	0.15	.0315	XAF795
6052-0432	WNMG-432-EM	WNMG080408EM	1/2	0.343	3/16	13/64	.0315	XAF795
6052-0433*	WNMG-433-EM	WNMG080412EM	1/2	0.343	3/16	13/64	.0472	XAF795

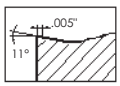
* Limited Supply

WNMG 80° TRIGON - NEGATIVE RAKE CARBIDE INSERTS

WNMG

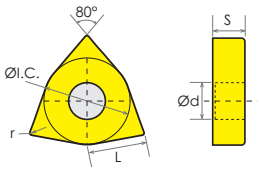
0° Relief Angle

TiN (C-5) Coated





10 PC PER PACKAGE



Item#	ANSI Insert No.	ISO Insert No.	I.C.	(Inch) S	d	r	Grade
6052-2331	WNMG-331	WNMG060404	3/8	3/16	0.15	.0157	TiN(C5)
6052-2332	WNMG-332	WNMG060408	3/8	3/16	0.15	.0315	TiN(C5)
6052-2432	WNMG-432	WNMG080408	1/2	3/16	13/64	.0315	TiN(C5)
6052-2433*	WNMG-433	WNMG080412	1/2	3/16	13/64	.0472	TiN(C5)

* Limited Supply

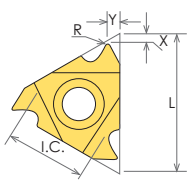
INTERNAL V PARTIAL PROFILE CARBIDE THREADING INSERTS

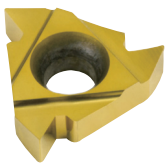
- 60° V partial profile threading insert.
- Right hand cut.

TiN COATED

RIGHT HAND

10 PC PER PACKAGE





* Limited Supply

Item#	Insert	I.C.	Pitch Range mm	TPI	L (in)	R (in)	X (in)	Y (in)
6061-0156*	06IRA60	.156"	0.5-1.25	48-20	.236	.002	.020	.024
6061-0187*	08IRA60	.188"	0.5-1.5	48-16	.315	.002	.024	.028
6007-0008	11IRA60	1/4"	0.5~1.5	48~16	.435	.003	.031	.035
6007-0015	16IRAG60	3/8"	0.5~3.0	48~8	.630	.003	.047	.035
6007-0018	22IRN60	1/2"	3.5~5.0	5~7	.866	.010	.067	.098

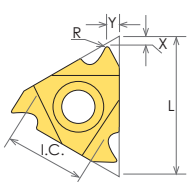
EXTERNAL V PARTIAL PROFILE CARBIDE THREADING INSERTS

- 60° V partial profile threading insert.
- Right hand cut.

TiN COATED

RIGHT HAND

10 PC PER PACKAGE





Item#	Insert	I.C.	Pitch Range mm	TPI	L (in)	R (in)	X (in)	Y (in)
6007-0002*	06ERA60	.156"	0.5-1.25	48-20	.236	.002	.020	.024
6007-0001*	08ERA60	.197"	0.5~1.5	48~16	.315	.002	.024	.028
6007-0004	11ERA60	1/4"	0.5~1.5	48~16	.435	.003	.031	.035
6007-0012	16ERAG60	3/8"	0.5~3.0	48~8	.630	.003	.047	.035

* Limited Supply

Carbide grades and insert classification shown on pages 191-192

UN-60° INTERNAL THREADING & GROOVING CARBIDE INSERTS-Inch Thread

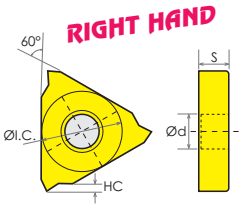
Item#	Insert No.	I.C.	Screw Pitch	S	d	Grade
6006-4010	RT16.01N-10UN	3/8"	10TPI	5/32"	0.173"	XAF799
6006-4012	RT16.01N-12UN	3/8"	12 TPI	5/32"	0.173"	XAF799
6006-4014	RT16.01N-14UN	3/8"	14 TPI	5/32"	0.173"	XAF799
6006-4016	RT16.01N-16UN	3/8"	16 TPI	5/32"	0.173"	XAF799
6006-4018	RT16.01N-18UN	3/8"	18 TPI	5/32"	0.173"	XAF799
6006-4020	RT16.01N-20UN	3/8"	20 TPI	5/32"	0.173"	XAF799

Limited Supply!

10 PC PER PACKAGE



RIGHT HAND

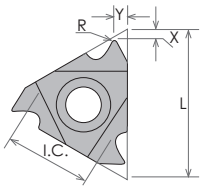


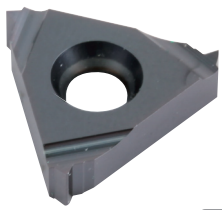
UN-60° INTERNAL THREADING & GROOVING CARBIDE INSERTS -Inch Thread

- UN-60° full profile threading insert.
- Tolerance Class: 2A/2B
- TiALN (TP04) coated.

TiALN COATED

RIGHT HAND





10 PC PER PACKAGE

Item#	Insert	I.C.	Screw Pitch TPI	L (in)	X (in)	Y (in)	Thick (in)
6006-4502	11NR-16UN	1/4	16	.433	.035	.043	.126
6006-4504	11NR-18UN	1/4	18	.433	.031	.039	.126
6006-4508	16NR-8UN	3/8	8	.630	.047	.079	.143
6006-4510	16NR-10UN	3/8	10	.630	.043	.059	.143
6006-4511	16NR-11UN	3/8	11	.630	.043	.059	.143
6006-4512	16NR-12UN	3/8	12	.630	.043	.055	.143
6006-4513	16NR-13UN	3/8	13	.630	.039	.051	.143
6006-4514	16NR-14UN	3/8	14	.630	.039	.047	.143
6006-4516	16NR-16UN	3/8	16	.630	.035	.043	.143
6006-4518	16NR-18UN	3/8	18	.630	.031	.039	.143
6006-4524	16NR-24UN	3/8	24	.630	.028	.031	.143
6006-4528	16NR-28UN	3/8	28	.630	.024	.024	.143

UN-60° EXTERNAL THREADING & GROOVING CARBIDE INSERTS-Inch Thread

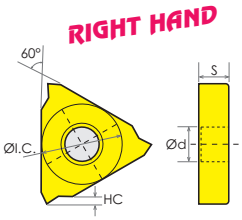
Item#	Insert No.	I.C.	Screw Pitch	S	d	Grade
6006-4108	RT16.01N-8UN	3/8"	8 TPI	5/32"	0.173"	XAF799
6006-4110	RT16.01N-10UN	3/8"	10TPI	5/32"	0.173"	XAF799
6006-4112	RT16.01N-12UN	3/8"	12 TPI	5/32"	0.173"	XAF799
6006-4114	RT16.01N-14UN	3/8"	14 TPI	5/32"	0.173"	XAF799
6006-4116	RT16.01N-16UN	3/8"	16 TPI	5/32"	0.173"	XAF799
6006-4118	RT16.01N-18UN	3/8"	18 TPI	5/32"	0.173"	XAF799
6006-4120	RT16.01N-20UN	3/8"	20 TPI	5/32"	0.173"	XAF799

Limited Supply!

10 PC PER PACKAGE



RIGHT HAND

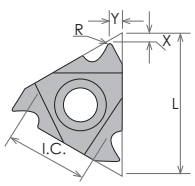


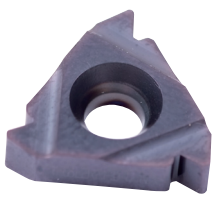
UN-60° EXTERNAL THREADING & GROOVING CARBIDE INSERTS -Inch Thread

- UN-60° full profile threading insert.
- Tolerance Class: 2A/2B
- TiALN (TP04) coated.

TiALN COATED

RIGHT HAND





10 PC PER PACKAGE

Item#	Insert	I.C.	Screw Pitch TPI	L (in)	X (in)	Y (in)	Thick (in)
6006-4609	16ER-9UN	3/8	9	.630	.047	.067	.143
6006-4610	16ER-10UN	3/8	10	.630	.043	.059	.143
6006-4611	16ER-11UN	3/8	11	.630	.043	.059	.143
6006-4612	16ER-12UN	3/8	12	.630	.043	.055	.143
6006-4613	16ER-13UN	3/8	13	.630	.043	.051	.143
6006-4614	16ER-14UN	3/8	14	.630	.039	.047	.143
6006-4620	16ER-20UN	3/8	20	.630	.031	.035	.143
6006-4624	16ER-24UN	3/8	24	.630	.028	.031	.143
6006-4628*	16ER-28UN	3/8	28	.630	.024	.028	.143
6006-4632	16ER-32UN	3/8	32	.630	.024	.024	.143

* Limited Supply

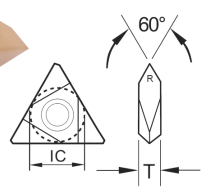
TPMC THREADING INSERTS - 10 Degree Rake, Precision Ground

TPMC

- 60° "V"-threading.
- 10° Rake angle.
- Double countersink thru hole.
- TiN coated.

10 PC PER PACKAGE





Item#	ANSI Insert No.	I.C.	Pitch	Radiu R	Thread Degree	Groove Width
6043-1375	TPMC-32NV	3/8	8 TPI Max.	.003~.005	60	.125"
6043-1500	TPMC-43NV	1/2	6 TPI Max.	.005~.008	60	.187"

Carbide grades and insert classification shown on pages 191-192

THREADING INSERTS

INTERNAL THREADING & GROOVING CARBIDE INSERTS - Metric Thread

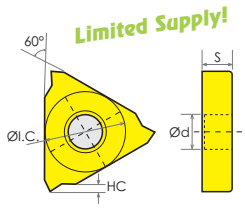
Item#	ANSI Insert No.	I.C.	Screw Pitch	S	d	Grade
6006-1006	RT16.01N-1.25GM	3/8"	1.25	5/32"	0.173"	XAF799
6006-1007	RT16.01N-1.50GM	3/8"	1.50	5/32"	0.173"	XAF799
6006-1008	RT16.01N-1.75GM	3/8"	1.75	5/32"	0.173"	XAF799
6006-1009	RT16.01N-2.00GM	3/8"	2.00	5/32"	0.173"	XAF799
6006-1010	RT16.01N-2.50GM	3/8"	2.50	5/32"	0.173"	XAF799
6006-1011	RT16.01N-3.00GM	3/8"	3.00	5/32"	0.173"	XAF799

RIGHT HAND

10 PC PER PACKAGE



Limited Supply!



EXTERNAL THREADING & GROOVING CARBIDE INSERTS - Metric Thread

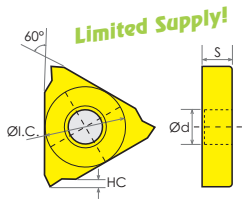
Item#	ANSI Insert No.	I.C.	Screw Pitch	S	d	Grade
6006-3006	RT16.0W-1.25GM	3/8"	1.25	5/32"	0.173"	XAF799
6006-3007	RT16.0W-1.50GM	3/8"	1.50	5/32"	0.173"	XAF799
6006-3008	RT16.0W-1.75GM	3/8"	1.75	5/32"	0.173"	XAF799
6006-3009	RT16.0W-2.00GM	3/8"	2.00	5/32"	0.173"	XAF799
6006-3010	RT16.0W-2.50GM	3/8"	2.50	5/32"	0.173"	XAF799
6006-3011	RT16.0W-3.00GM	3/8"	3.00	5/32"	0.173"	XAF799

RIGHT HAND

10 PC PER PACKAGE



Limited Supply!



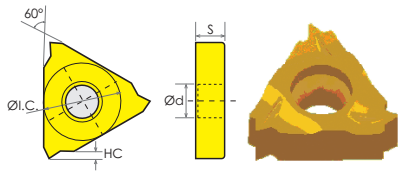
INTERNAL (NPT) THREADING CARBIDE INSERTS - Pipe Thread

Item#	ANSI Insert No.	I.C.	Screw Pitch	S	d	Grade
6006-6008	RT16.001N-8NPT	.375"	8 TPI	.156"	0.173"	TiN(C6)
6006-6011	RT16.001N-11.5NPT	.375"	11.5 TPI	.156"	0.173"	XAF799
6006-6014	RT16.001N-14NPT	.375"	14 TPI	.156"	0.173"	XAF799
6006-6018	RT16.001N-18NPT	.375"	18 TPI	.156"	0.173"	XAF799
6006-6027	RT16.001N-27NPT	.375"	27 TPI	.156"	0.173"	XAF799

Limited Supply!

RIGHT HAND

10 PC PER PACKAGE



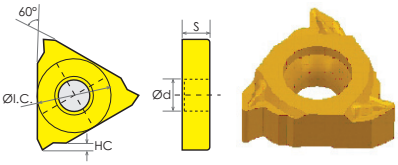
EXTERNAL (NPT) THREAD CARBIDE INSERTS - Pipe Thread

Item#	ANSI Insert No.	I.C.	Screw Pitch	S	d	Grade
6006-6108	RT16.001W-8NPT	.375"	8 TPI	.156"	0.173"	TiN(C6)
6006-6111	RT16.001W-11.5NPT	.375"	11.5 TPI	.156"	0.173"	XAF799
6006-6114	RT16.001W-14NPT	.375"	14 TPI	.156"	0.173"	XAF799
6006-6118	RT16.001W-18NPT	.375"	18 TPI	.156"	0.173"	XAF799
6006-6127	RT16.001W-27NPT	.375"	27 TPI	.156"	0.173"	XAF799

Limited Supply!

RIGHT HAND

10 PC PER PACKAGE



TNMA THREADING CARBIDE INSERTS 0-Degree Rake, Precision Ground

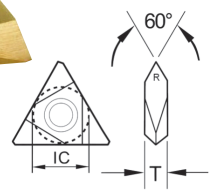
TNMA

- 60° "V"-threading.
- 0° Rake angle.
- Cylindrical thru hole.

Item#	ANSI Insert No.	I.C.	Pitch	Radiu R	Thread Degree	Thick T	Hole d	Grade C6
6043-0375	TNMA-32NV	3/8	8 TPI Max.	.003~.005	60	.125"	.150"	TiN
6043-0500	TNMA-43NV	1/2	6 TPI Max.	.005~.008	60	.187"	.202"	TiN
6043-0005	TNMA-43NV	1/2	6 TPI Max.	.005~.008	60	.187"	.202"	Uncoated



10 PC PER PACKAGE



TNMC GROOVING CARBIDE INSERTS

TNMC

- Right hand on two sides.
- Neutral rake angle.
- Double countersink thu hole.
- TiN coated.

Limited Supply!

TiN Coated



10 PC PER PACKAGE

Item#	Insert No.	I.C. (In)	Pitch	Groove Width (In)	Groove Depth (In)
6043-0632	TNMC-32NGR031	0.375	8 TPI Max.	.031	.075
6043-0633	TNMC-32NGR062	0.375	8 TPI Max.	.062	.150
6043-0634	TNMC-32NGR094	0.375	8 TPI Max.	.094	.150
6043-0635	TNMC-32NGR125	0.375	8 TPI Max.	.125	.150
6043-0643	TNMC-43NGR062	0.500	6 TPI Max.	.062	.125
6043-0644	TNMC-43NGR094	0.500	6 TPI Max.	.094	.150
6043-0645	TNMC-43NGR125	0.500	6 TPI Max.	.125	.210
6043-0646	TNMC-43NGR156	0.500	6 TPI Max.	.156	.210
6043-0654	TNMC-54NGR250	0.625	4 TPI Max.	.250	.210

Carbide grades and insert classification shown on pages 191-192

NOTCH THREADING & GROOVING CARBIDE INSERTS

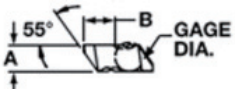
- Completely interchangeable with the "Kennametal TopNotch" and the Teledyne Firth Notch systems.
- 60° Negitive rake, netural.
- NT-600 parting profile general purpose threading inserts.
- NG-Grooving & Turning inserts.
- Grade: C5/TIC-65 coated, which is same as KENNAMETAL KC810, KC850, KC950, KC730
- Trademark of Kennametal.

SPECIFICATIONS

Insert #	External TPI	Internal TPI
T/NT-2R/2L	8-36	7-20
T/NT-3R/3L	6-20	5-12
T/NT-4R/4L	4-20	4-12







THREADING INSERTS Grade C5/TIC 65

Item#	Insert #	R	B	(Inch) T	E	A	Gage Dia.
6062-5001	T/NT-2R	.003	.2661	.150	.075	.219	.1875
6062-5002	T/NT-2L	.005	.2661	.150	.075	.219	.1875
6062-5003	T/NT-3R	.005	.3999	.195	.098	.344	.3750
6062-5004	T/NT-3L	.008	.3999	.195	.098	.344	.3750
6062-5005	T/NT-4R	.005	.6293	.255	.128	.453	.3750

CLAMP

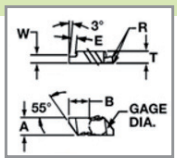
Item #	Style
2100-0011	TNSB-2B
2100-0010	TNSB-3B

GROOVIING INSERTS

Grade C5/TIC 65

R=Right Hand
L=Left Hand





Item#	Insert #	R	Groove Width W	B	(Inch) T	Depth of Cut E	A	Gage Dia.
6062-2030	T/NG-2031R	.002	.031	.2700	.150	.050	.219	.1875
6062-2031	T/NG-2031L	.005	.031	.2700	.150	.050	.219	.1875
6062-2046	T/NG-2047R	.002	.047	.2700	.150	.050	.219	.1875
6062-2047	T/NG-2047L	.005	.047	.2700	.150	.050	.219	.1875
6062-2061	T/NG-2062R	.005	.062	.2700	.150	.050	.219	.1875
6062-2062*	T/NG-2062L	.010	.062	.2700	.150	.050	.219	.1875
6062-2093	T/NG-2094R	.005	.094	.2700	.150	.050	.219	.1875
6062-2094	T/NG-2094L	.010	.094	.2700	.150	.050	.219	.1875
6062-2124*	T/NG-2125R	.005	.125	.2700	.150	.050	.219	.1875
6062-2125*	T/NG-2125L	.010	.125	.2700	.150	.050	.219	.1875
6062-3046	T/NG-3047R	.005	.047	.4050	.195	.075	.344	.3750
6062-3047*	T/NG-3047L	.010	.047	.4050	.195	.075	.344	.3750
6062-3061	T/NG-3062R	.005	.062	.4050	.195	.075	.344	.3750
6062-3077*	T/NG-3078R	.005	.078	.4050	.195	.075	.344	.3750
6062-3078*	T/NG-3078L	.010	.078	.4050	.195	.075	.344	.3750
6062-3087*	T/NG-3088R	.005	.088	.4050	.195	.075	.344	.3750
6062-3088*	T/NG-3088L	.010	.088	.4050	.195	.075	.344	.3750
6062-3094*	T/NG-3094L	.010	.094	.4050	.195	.075	.344	.3750
6062-3124	T/NG-3125R	.005	.125	.4050	.195	.075	.344	.3750
6062-3125	T/NG-3125L	.010	.125	.4050	.195	.075	.344	.3750
6062-3155	T/NG-3156R	.005	.156	.4050	.195	.075	.344	.3750
6062-3156	T/NG-3156L	.010	.156	.4050	.195	.075	.344	.3750
6062-3188	T/NG-3189R	.005	.189	.4050	.195	.075	.344	.3750
6062-3189*	T/NG-3189L	.010	.189	.4050	.195	.075	.344	.3750
6062-4124*	T/NG-4125R	.005	.125	.6360	.255	.250	.453	.3750
6062-4125*	T/NG-4125L	.010	.125	.6360	.255	.250	.453	.3750
6062-4189*	T/NG-4189L	.025	.189	.6360	.255	.250	.453	.3750
6062-4249*	T/NG-4250R	.020	.250	.6360	.255	.250	.453	.3750
6062-4250*	T/NG-4250L	.025	.250	.6360	.255	.250	.453	.3750

* Limited Supply

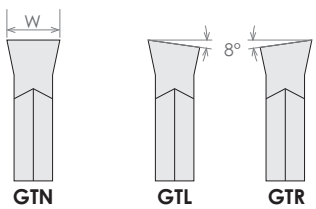
GTN-CARBIDE INSERTS

- Self locking inserts.
- Interchangeable with ISCAR & other popular brands.



10 PC PER PACKAGE

GRADE
C-2 FOR CAST IRON AND GENERAL PURPOSE
C-6 FOR ALL STEEL AND GENERAL PURPOSE
TiN (C-6) FOR INCREASED PRODUCTIVITY



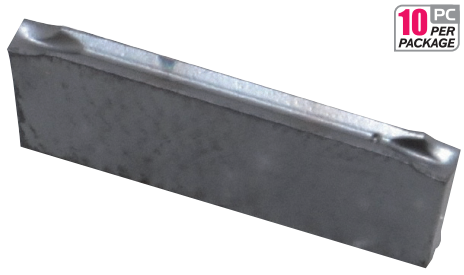
Insert Style	Insert Size (W) (In)	C-2 Item#	C-6 Item#	TiN Coated(C-6) Item#
GTN-2	.087	3900-5802	3900-5309	6024-2002
GTN-3	.120	----------	6024-1003	6024-2003
GTN-4	.160	6024-0004	----------	6024-2004
GTN-5	.200	----------	6024-1005	6024-2005

CUT-OFF & GROOVING INSERTS

DGN

- Used for applications in parting and grooving.
- Fits ISCAR Heliface, Do-Grip and Groove Turn holders.
- Double ended, two cutting edges.

10 PC PER PACKAGE



Item#	ANSI Insert No.	(mm) Cutting Width	OAL	r	Grade
6024-5001*	DGN2202J	2.2	19.8	0.2	BPG20B-PVD
6024-5004	DGN3102C	3.1	20.1	0.2	BPS253-CVD
6024-5014	GRIP4004Y	4.0	19.0	0.4	BPS253-CVD

* Limited Supply

Carbide grades and insert classification shown on pages 191-192

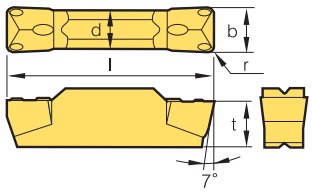
GROOVING CARBIDE INSERTS

MGMN-G GROOVING CARBIDE INSERTS

MGMN-G

- Specially designed chip breaker allows narrower chips to promote better chip flow.
- Specifically designed for grooving applications.





10 PC PER PACKAGE

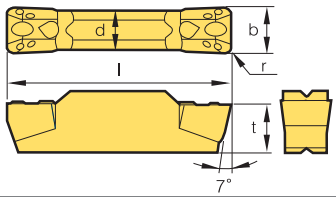
Item#	ANSI Insert No.	Cutting Width b	OAL L	(Inch) d	Cutting Edge Heigh t	r	Grade
6024-3021	MGMN-150-G	.059	.138	.047	.138	.006	BPS253-CVD
6024-3022	MGMN-200-G	.079	.138	.063	.138	1/128	BPS253-CVD
6024-3051	MGMN-200-G	.079	.138	.063	.138	1/128	BPG20B-PVD

MGMN-M GROOVING CARBIDE INSERTS

MGMN-M

- Specially designed chip breaker allows as moother chip flow versus conventional flattop geometries through the use of a central chip breaker.
- Specially placed convex dots assits twith chip control in external machining, for a smoother chip flow.
- Chip breaker designed for turning , grooving & parting applications.





10 PC PER PACKAGE

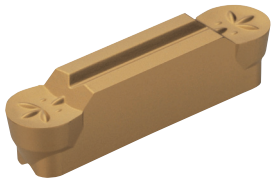
Item#	ANSI Insert No.	Cutting Width	OAL L	(Inch) d	Cutting Edge Heigh t	r	Grade
6024-3002	MGMN-250-M	.098	.152	.079	.152	1/128	BPS253-CVD
6024-3003	MGMN-300-M	.118	.189	.093	.189	1/64	BPS253-CVD
6024-3004	MGMN-400-M	.157	.189	.130	.189	1/64	BPS253-CVD
6024-3052*	MGMN-250-M	.098	.152	.079	.152	1/128	BPG20B-PVD
6024-3053	MGMN-300-M	.118	.189	.093	.189	1/64	BPG20B-PVD

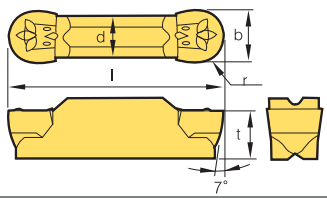
* Limited Supply

MRMN-M GROOVING CARBIDE INSERTS

MRMN-M

- Full radius geometry for applications that require profiling
- Available for relief machining





10 PC PER PACKAGE

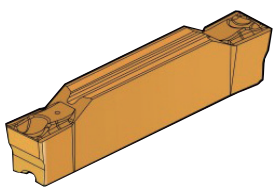
Item#	ANSI Insert No.	Cutting Width b	OAL L	(Inch) d	Cutting Edge Heigh t	r	PVD Grade
6024-3031	MRMN-200-M	.079	.630	.059	.079	3/64	BPS253
6024-3032*	MRMN-300-M	.118	.827	.093	.118	1/16	BPS253
6024-3033	MRMN-400-M	.157	.827	.130	.157	5/64	BPS253
6024-3034*	MRMN-500-M	.197	1.024	.161	.197	3/32	BPS253
6024-3035	MRMN-600-M	.236	1.024	.197	.236	1/8	BPS253

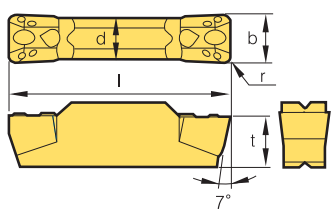
* Limited Supply

N123 GROOVING CARBIDE INSERTS

N123E2

- For internal & external grooving.
- For use with Sandvik style holders with V or Rail shape clamp.
- Two cutting edges.





10 PC PER PACKAGE

Item#	ANSI Insert No.	(mm) Cutting Width	OAL L	Cutting Edge Height t	r	Grade
6024-4001	N123E2-0200-0004-GF	2	20.05	4.3	0.4	BPS253-CVD
6024-4002	N123E2-0260-0008-GF	2.6	20.70	4.5	0.8	BPS253-CVD
6024-4003	N123G2-0318-0008-GF	3.18	20.70	4.5	0.8	BPS253-CVD

Carbide grades and insert classification shown on pages 191-192

R8 BORING HEAD SETS - WITH INDEXABLE BORING BARS

- Indexable boring bars take carbide inserts(included).
- Head features a threaded back for interchangable shanks.
- **Set complete with Boring Head, Boring Shank, Indexable Boring Bars, Torx & L-shape Hex Wrenches and fitted carrying case.**
- A micrometer lead screw provides 0.001" direct reading accuracy and ease of adjusting.
- 1 DIV = 0.001 meaning **on the 0-50 dial**, when turning the dial by 1 division/graduation, the boring head's travel is 0.001" in radius movement, 0.002" in diameter movement; **on the 0-100 dial**, when turning the dial by 1 division/graduation, the boring head's travel is 0.0005" in radius movement, 0.001" in diameter movement.



C6 GRADE: carbide for steel and alloy steel





1906-0205 Shown



1906-0201 Shown





Item#	Boring Head (Dia.)	Shank	No. of Boring Bars	Boring Bar Hole Size
1906-0201	2"	R8	4	1/2"
1906-0205	3"	R8	5	3/4"

SPECIFICATIONS:

	2" HEAD	3" HEAD
Graduations	0.001"/0-50	0.001"/0-100
Boring Head Thread	1-1/2"-18 T.P.I.	1-1/2"-18 T.P.I.
Offset	5/8"	1"
Crosshole	1/2"	3/4"
Shank Thread (Drawbar End) R8	7/16"-20 UNC	7/16"-20 UNC
Min. Boring Diameter	0.394"	0.394"
Max. Boring Diameter	5.906"	7.874"
Max. Boring Depth	1.970"	3.150"

BORING BAR SET INCLUDED

Set	Shank	Min. Bore	(Inch) OAL	Bore Depth	For Holder	Uses Insert	Uses Torx Wr.	Uses Screw
4	**1/2**	5/16	3-3/8	1-7/8	**B10C2**	**CCMT21.5__**	**T-8**	**M2.5x5.0**
		7/16	3-3/4	2-1/4	**B12T2**	**TCMT21.5__**		
		9/16	4-1/8	2-3/4	**B16T2**	**TCMT21.5__**		
		3/4	2-7/8	1-7/16	**R100C2**	**CCMT21.5__**		
5	**3/4**	5/16	3-3/8	1-7/8	**D10C2**	**CCMT21.5__**	**T-8**	**M2.5x5.0**
		7/16	3-3/4	2-3/8	**D12T2**	**TCMT21.5__**		
		1/2	4-1/8	2-3/4	**D16T2**	**TCMT21.5__**		
		11/16	5-5/16	3-7/8	**D20T2**	**TCMT21.5__**		
		1-1/16	5-1/8	3-9/16	**R125C3**	**CCMT32.5__**		

R8 BORING HEAD SET - WITH HSS BORING BARS

- Rugged design allows excellent rigidity for chatter-free boring.
- Head features a threaded back for interchangable shanks.
- **Set complete with Boring Head, Boring Shank, Solid HSS Boring Bars & L-shape Hex Wrenches and fitted carrying case.**
- Dial on head with 0.001" graduation for accurate hole sizing.



SPECIFICATIONS:

	2" HEAD
Boring Head Thread	1-1/2"-18 T.P.I.
Offset	5/8"
Crosshole	1/2"
Shank Thread (Drawbar End)R8	7/16"-20 UNC
Min. Boring Diameter	0.300"
Max. Boring Diameter	5.700"
Max. Boring Depth	2.300"

Item#	Boring Head (Dia.)	Shank	No. of Boring Bars	Boring Bar Hole Size
1906-5935	2"	R8	5	1/2"

BORING HEAD SETS

9 PC BORING HEAD SETS - WITH CARBIDE TIPPED BORING BARS



R8 SET Shown

Boring Head:
- 2-inch diameter for accurate and controlled boring.
- Adjustable slides for precise depth control.
- Hardened and ground for durability and accuracy.
- Graduations on the dial for direct reading at increments of 0.005".

Carbide Tipped Boring Bars:
- Set includes 5 C6 carbide-tipped boring bars for various applications.
- Carbide tips provide superior cutting durability.
- Different bar sizes for versatility in bore sizes.

R8 Shank:
- R8 shank for secure and stable tool holding. Fits Bridgeport-type mills.
- Threaded back for adapting shank, ensuring a secure fit.
- 7/16"-20 drawbar thread.

NMTB Shank:
- Secure tool holding, fits machines with a NMTB30 spindle.
- Threaded back for adapting shank, ensuring a secure fit.
- 1/2"-13 drawbar thread.

BT30 Shank:
- Designed to work with machines featuring BT30 spindles, providing a versatile solution for a wide range of machining equipment.

Precision Machining>>>>>>
Achieve high-precision bores for accurate fits. Reduce scrap and rework with reliable cutting performance.

Versatility>>>>>>
Adapt to different machining needs with the variety of boring bar sizes. Ideal for both professionals, hobbyists and machinists.

Adjustments>>>>>>
Use the adjustable slides to set the desired depth of cut.

Reading the Dial>>>>>>
Each division on the dial corresponds to a specific depth increment. Direct reading graduation of 0.005" for precise depth control.

Feed Dial>>>>>>
Monitor the feed dial for precise control over the cutting speed. Graduated at 0.001" per 0.050" for fine-tuning the feed rate.

Chatter-Free Boring>>>>>>
Minimizes chatter for smoother machining. Enhances surface finish and overall quality.

Chatter-Free Boring:
- Design minimizes chatter for smoother machining.
- Enhances surface finish and overall machining quality.

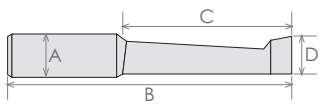
45° Flycutter:
- 5/16" hole diameter.
- Enhances versatility for additional machining needs.
- Ideal for facing and surface milling operations.

Carrying Case:
- Includes a durable carrying case for convenient storage.
- Protects the set from damage and ensures all components are organized.



R8 Shank Shown

Boring Head Set Includes:
- **2" boring head**
- **Specified shank**
- **5 pc. C6 carbide tipped boring bar set**
- **45° fly cutter and protective case**



BORING BAR SET INCLUDES: Inch

A Diameter	B Length	C Bore Depth	D Min. Bore
1/2	3-1/16	1-/2	5/16
1/2	3-1/4	1-3/4	1/2
1/2	3-7/8	2-3/8	7/16
1/2	3-7/8	2-3/8	9/16
1/2	4-1/2	3-1/16	9/16

9 PC BORING HEAD SETS

Item#	Head Size	Shank Taper	Shank To Head	Tool Capacity	Dia. of Boring
1061-0106	2"	**R8**	1-1/2"~18	Up to 1/2"	3/8~5"
1061-0058	2"	**NMTB30**	1-1/2"~18	Up to 1/2"	3/8~5"
1061-0096	2"	**BT30**	1-1/2"~18	Up to 1/2"	3/8~5"

MT2 & MT3 SHANK BORING HEAD SET - WITH CARBIDE TIPPED BORING BARS



Boring Head:
- 2-inch diameter for accurate and controlled boring.
- Adjustable slides for precise depth control.
- Hardened and ground for durability and accuracy.
- Graduations on the dial for direct reading at increments of 0.005".

Carbide Tipped Boring Bars:
- Set includes 5 C6 carbide-tipped boring bars for various applications.
- Carbide tips provide superior cutting durability.
- Different bar sizes for versatility in bore sizes.

MT2 & MT3 Shanks:
- Secure tool holding, fits machines with a Morse Taper #2 or 3 spindle, providing a versatile solution for a wide range of machining equipment.
- Threaded back for adapting shank, ensuring a secure fit.
- 3/8"-16 drawbar thread.

Chatter-Free Boring:
- Design minimizes chatter for smoother machining.
- Enhances surface finish and overall machining quality.

Precision Machining>>>>>>
Achieve high-precision bores for accurate fits. Reduce scrap and rework with reliable cutting performance.

Versatility>>>>>>
Adapt to different machining needs with the variety of boring bar sizes. Ideal for both professionals, hobbyists and machinists.

Adjustments>>>>>>
Use the adjustable slides to set the desired depth of cut.

Reading the Dial>>>>>>
Each division on the dial corresponds to a specific depth increment. Direct reading graduation of 0.005" for precise depth control.

Feed Dial>>>>>>
Monitor the feed dial for precise control over the cutting speed. Graduated at 0.001" per 0.050" for fine-tuning the feed rate.

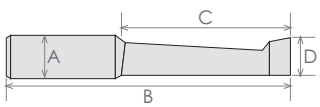
Chatter-Free Boring>>>>>>
Minimizes chatter for smoother machining. Enhances surface finish and overall quality.

45° Flycutter:
- 5/16" hole diameter.
- Enhances versatility for additional machining needs.
- Ideal for facing and surface milling operations.

Carrying Case:
- Includes a durable carrying case for convenient storage.
- Protects the set from damage and ensures all components are organized.



Boring Head Set Includes:
- **2" boring head**
- **MT2 & MT3 shanks**
- **5 pc. C6 carbide tipped boring bar set**
- **45° fly cutter and protective case**



BORING BAR SET INCLUDES: Inch

A Diameter	B Length	C Bore Depth	D Min. Bore
1/2	3-1/16	1-/2	5/16
1/2	3-1/4	1-3/4	1/2
1/2	3-7/8	2-3/8	7/16
1/2	3-7/8	2-3/8	9/16
1/2	4-1/2	3-1/16	9/16

Item#	Head Size	Shank Taper	Shank To Head	Tool Capacity	Dia. of Boring
1061-0074	2"	MT2 & MT3	1-1/2"~18	Up to 1/2"	3/8~5"

BORING HEADS, SETS & SHANKS

BORING HEAD SETS - WITH CARBIDE TIPPED BORING BARS

- **BORING HEAD:** Bar holder moves freely and smoothly. Design assures superior rigidity for chatter-free boring and precise hole size accuracy. Hardened and ground adjusting screw designed for long lasting and trouble free use.

GRADUATION 0.0005"



KIT INCLUDES:
BORING HEAD, SHANK,
C6 CARBIDE TIPPED BORING BAR SET



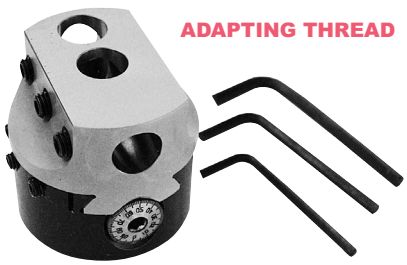
Item#	Head Size	Shank Taper	Shank To Head	Boring Bar	Tool Capacity
1001-0105	2"	3MT	7/8"~20	1/2" / 9 PC	Up to 1/2"
1001-0106	2"	R8	7/8"~20	1/2" / 9 PC	Up to 1/2"
1001-0107	3"	R8	1-1/2"~18	3/4" / 12 PC	Up to 3/4"

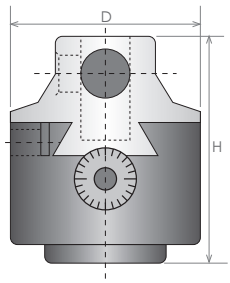
BORING HEADS

- Bar holder moves freely and smoothly.
- Design assures superior rigidity for chatter-free boring and precise hole size accuracy.
- Hardened and ground adjusting screw designed for long lasting and trouble free use.
- Threaded back for adapting to boring shank.

GRADUATION 0.0005"

ADAPTING THREAD







Item#	Head Dia. D	Head Ht H	Adapting Threads	Tool Capacity	Max. Offset	Boring Bar Hole Size	Shaft Hole Diameter	Dia of Boring
1001-0101	2"	2-7/16	1-1/2"~18	Up to 1/2"	5/8"	1/2	1/2	3/8~5.0
1001-1011	2"	2-7/16	7/8"~20	Up to 1/2"	5/8"	1/2	1/2	3/8~5.0
1001-0102	3"	3-5/32	1-1/2"~18	Up to 3/4"	1"	3/4	3/4	1/2~9.0
1001-0103	4"	3-1/2	1-1/2"~18	Up to 1"	1-5/8"	1	1	5/8~15.0

PRECISION BORING HEAD SHANKS

- Use for boring heads.
- Made of high grade tool steel.
- Hardened and ground.



R8 Shown



NMTB Shown



MT Shown



CAT Shown

7/8" ~ 20 MOUNTING THREAD

Item#	Taper of Shank	End Type
1001-0090	R8	Draw Bar
1001-0080	MT2	Draw Bar
1001-0431	MT3	Draw Bar
1001-0050	#30NMTB	Draw Bar
1001-0056	Straight 1/2"	
1001-0058	Straight 3/4"	
1001-0060	Straight 1"	
1001-0062*	Straight 1-1/4"	

DRAWBAR END THREAD

- R8- 7/16" -20
- MT2- 3/8" -16
- MT3- 3/8" -16
- MT4- 1/2" -13
- #30- 1/2" -13
- #40- 5/8" -11
- #50- 1"-8

* Limited Supply

1-1/2" ~ 18 MOUNTING THREAD

Item#	Taper of Shank	End Type
1001-0089	R8	Draw Bar
1001-0081	MT2	Draw Bar
1001-0085	MT3	Draw Bar
1001-0068	#30NMTB	Draw Bar
1001-0069	#40NMTB	Draw Bar
1001-0070*	#50NMTB	Draw Bar
1001-0072	Straight 1/2"	
1001-0073	Straight 5/8"	
1001-0074	Straight 3/4"	
1001-0076	Straight 1"	
1001-0077	Straight 1-1/4"	
1001-0078*	Straight 1-1/2"	
1001-0079*	Straight 2"	
1001-0440	CAT40	

Pro-Series BORING TOOL SETS - WITH CARBIDE TIPPED BORING BARS

- Rugged design allows excellent rigidity for chatter-free boring.
- Head features a threaded back for multiple shanks.

- **Set complete with Boring Head, Boring Shank, Carbide Tipped Boring Bar & L-shape Hex Wrenches.**
- Dial on head with 0.0005" graduation for accurate hole sizing.
- Fitted durable carry case included.



1001-5937 Shown



1001-5937 Shown

	2" HEAD	3" HEAD
Boring Head Thread	7/8"-20 T.P.I.	1-1/2"-18 T.P.I.
Offset	5/8"	3/4"
Crosshole	1/2"	3/4"
Shank Thread		
(Drawbar End)R8	7/16"-20 UNC	7/16"-20 UNC
(Drawbar End)MT2	3/8"-16 UNC	
(Drawbar End)NT40		5/8"-11 UNC
Mini. Boring Diameter	0.394"	0.394"
Max. Boring Diameter	5.906"	7.874"
Max. Boring Depth	1.970"	3.150"

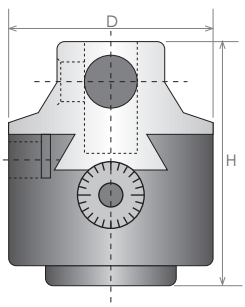
Item#	Boring Head (Dia.)	Shank	No. of Boring Bars	Boring Bar Hole Size
1001-5935	2"	R8	9	1/2"
1001-5937	2"	MT2	9	1/2"
1001-5940	3"	R8	12	3/4"
1001-5942	3"	NT/NMTB 40	12	3/4"

Pro-Series BORING HEADS

- Direct reading dial screw.
- Bar holder moves freely and smoothly.
- Design assures superior rigidity for chatter-free boring and precise hole size accuracy.
- Made of high grade alloy steel.
- Threaded back for adapting to boring shank.

ADAPTING THREAD
GRADUATION 0.0005"
0.001"/ 0-50 READING







SUPERIOR CRAFTSMANSHIP
HARDENED & GROUND

Item#	Head Size D	Adapting Threads	Tool Capacity	Max. Offset	Head OAL H	Borng Bar Hole Size	Shaft Hole Diameter	Diameter of Boring
1001-1020	2"	1-1/2"~18	Up to 1/2"	5/8"	2-7/16	1/2	1/2	3/8~5.0
1001-1021	2"	7/8"~20	Up to 1/2"	5/8"	2-7/16	1/2	1/2	3/8~5.0
1001-1023	3"	1-1/2"~18	Up to 3/4"	1"	3-5/32	3/4	3/4	1/2~9.0
1001-1026	4"	1-1/2"~18	Up to 1"	1-5/8"	3-1/2	1	1	5/8~15.0

Pro-Series BORING SHANKS

- Made of 20CrMnTi alloy steel.
- Electrolysis nickel coating.
- Superior craftsmanship.

DRAWBAR END THREAD
- R8: 7/16" -20
- MT3: 3/8" -16



MT3 Shown

HARDENED & GROUND



R8 Shown

7/8" ~ 20 MOUNTING THREAD

Item#	Taper of Shank	End Type
1001-1090*	R8	Draw Bar

1-1/2" ~ 18 MOUNTING THREAD

Item#	Taper of Shank	End Type
1001-1080*	MT3	Draw Bar
1001-1089	R8	Draw Bar

* Limited Supply

Pro-Series BORING TOOL SETS - WITH CARBIDE TIPPED BORING BARS

- Wide bearing surface provides super accuracy.
- Rugged design allows excellent rigidity for chatter-free boring.
- Head features a threaded back for multiple shanks exchangeable.
- Set complete with Boring Head, Boring Shank, Boring Bars, Adapters and L-shape Hex Wrenches.
- Dial on head with 0.0005" graduation for accurate hole sizing.
- Fitted durable carry case included.

MADE IN TAIWAN



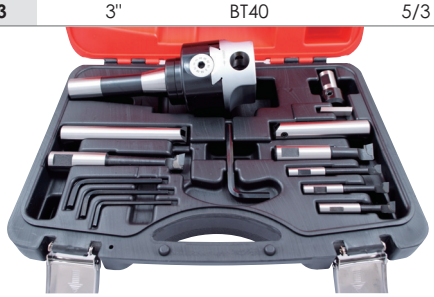
3800-5935 Shown



Item#	Boring Head (Dia.)	Shank	No. of Boring Bar/Adapter	Boring Bar Hole Size	N.W. (lbs.)
3800-5935	2"	R8	2/1	1/2"	5
3800-5940	3"	R8	5/3	3/4"	10
3800-5942	3"	NT/NMTB 40	5/3	3/4"	11
3800-5943	3"	BT40	5/3	3/4"	11



3800-5940 Shown





GRADUATION 0.0005"
READING 0.0005"/0-100



3800-5942 Shown

SPECIFICATIONS

2" HEAD	
Boring Head Thread	1-1/2-18" T.P.I.
Offset	5/8"
Crosshole	1/2"
Shank Thread (Drawbar End) R8	7/16"-20 UNC
Mini. Boring Diameter	0.394"
Max. Boring Diameter	5.906"
Max. Boring Depth	1.970"
Boring Bars Size	1/2"
Adapter 1 (Hold 3/8" Boring Bar)	None
Adapter 2 (Hold 1/4"x1.2" Square Tool Bit)	Ø1/2"xØ3/4"x3.5"
Adapter 3 (Hold 1/4"x1.2" Square Tool Bit)	None
Adapter 4 (Hold 1/4"x1.2" Square Tool Bit)	None



3800-5943 Shown

3" HEAD	
Boring Head Thread	1-1/2"-18 T.P.I.
Offset	3/4"
Crosshole	3/4"
Shank Thread (Drawbar End): R8	7/16"-20 UNC
NT 40	5/8"-11 UNC
BT40	M16x2.0
Mini. Boring Diameter	0.394"
Max. Boring Diameter	7.874"
Max. Boring Depth	3.150"
Boring Bars Size	3/8" & 3/4"
Adapter 1 (Hold 3/8" Boring Bar)	Ø3/4" x Ø3/8" x 2"
Adapter 2 (Hold 1/4"x1.2" Square Tool Bit)	None
Adapter 3 (Hold 1/4"x1.2" Square Tool Bit)	Ø3/4" x 3.5"
Adapter 4 (Hold 1/4"x1.2" Square Tool Bit)	Ø3/4" x 4.7"

VERTEX® 9 PC. NMTB30 (NT30) C-TYPE (CRITERION-STYLE) 2"BORING HEAD SET

- **Made in Taiwan** – High Quality & Exceptional Value: Precision manufacturing delivers consistent accuracy and durability comparable to premium brands at a more competitive price point.
- **Direct Reading Adjustment Screw (.001" graduation)** – Hardened & ground screw with clear dial for precise, repeatable adjustments.
- **Satin Chrome Direct-Reading Micrometer Dial** – For precise adjustments - 0.0005" graduations for accurate hole sizing.
- **Wide Base Bar Holder (Integral Design)** – Built-in support increases rigidity and eliminates need for side plate.
- **Versatile Across Multiple Machines** – NMTB30 (NT30) taper plus threaded system allows flexibility across setups. Drawbar is 1/2"-13.
- **Extended Boring Range (0.393-4.33")** – Covers small to mid-size precision bores in one setup.
- **Heavy-Duty Tool Steel Construction** – Hardened tool steel designed for both roughing cuts and fine finishing operations.
- **Common Applications** – Precision hole enlargement after drilling, bearing housing& bushing fits, jig & fixture boring and counterboring and internal finishing.



GRADUATION 0.001"



MADE IN TAIWAN

Set Includes:

- Boring Head with NMTB30 (NT30) shank
- 2 - 1/2" Shank Boring Bars
- Adapter & Square Tool Bit Size: 1/4 x 1.2"
- 3 - Hex Keys
- Fitted Plastic Case

9 PC SET
1001–5941

SPECIFICATIONS	
Head Size	2"
Min. Boring Diameter	0.393" (10 mm)
Max. Boring Diameter	4.33" (110 mm)
Max. Boring Depth	50 mm
Offset	5/8"
Crosshole	1/2"
Graduation	0.001"
Adjustment Accuracy	0.001"
Shank	NMTB30 (NT30)
Weight	5 Lbs.

2-1/2" BORING HEAD WITH INTEGRATED R8 SHANK

- Made from hardened steel for durability.
- Heat treated and fully black oxidized.
- Integrated R8 Shank directly built into the boring head, eliminating the need for an adapter.
- **R8 Taper** – Standard for Bridgeport-style and similar milling machines, ensuring a secure fit.
- **Boring Capacity** – Usually supports boring ranges from approximately 1/2" to 6" depending on the tool and extension used. Can accommodate boring bars of 1/2" diameter (most standard models).
- 0-100mm Dial Graduation for precision adjustments.
- **Graduation** – 0.001" per division, allowing for fine depth control.
- Ideal for machinists and toolmakers working on steel, aluminum, cast iron, and other metals.
- Complete with boring head, R8 shank and L-shape hex wrenches.

A 2-1/2" boring head with an integrated R8 shank is commonly used in milling machines for precision hole enlargement and fine boring operations.







R8 SHANK
2-1/2" HEAD
1006–1201

SPECIFICATIONS	
Diameter of Boring Head	2-1/2"
Shank	R8
Boring Head Dia. of Shank Hole	1/2"
Mini. Boring Diameter	10mm
Max. Boring Diameter	125mm
Fit Boring Bars Size	1/2"
Weight	4.1 lbs.

BORING HEAD SETS

R8 BORING TOOL SETS -WITH INDEXABLE BORING BARS

- Indexable boring bars take TC_21.5 C6 carbide inserts(included).
- Head features a threaded back for multiple shanks exchangeable.
- **Set complete with Boring Head, Boring Shank, Indexable Boring Bars, Torx & L-shape Hex Wrenches.**
- Fitted carry case included.
- A micrometer lead screw provides 0.001" direct reading accuracy and ease of adjusting.
- 1 DIV = 0.001 meaning **on the 0-50 dial**, when turning the dial by 1 division/graduation, the boring head's travel is 0.001" in radius movement, 0.002" in diameter movement; **on the 0-100 dial**, when turning the dial by 1 division/graduation, the boring head's travel is 0.0005" in radius movement, 0.001" in diameter movement.



1001-0201 Shown





1001-0205 Shown

Item#	Boring Head (Dia.)	Shank	No. of Boring Bar	Boring Bar Hole Size
1001-0201	2"	R8	4	1/2"
1001-0205	3"	R8	8	3/4"

C6 GRADE: carbide for steel and alloy steel

	2" HEAD	3" HEAD
Graduations	0.001"/0-50	0.0005"/0-100
Boring Head Thread	1-1/2"-18 T.P.I.	1-1/2"-18 T.P.I.
Offset	5/8"	1"
Crosshole	1/2"	3/4"
Shank Thread (Drawbar End)	7/16"-20 UNC	7/16"-20 UNC
Mini. Boring Diameter	0.394"	0.394"
Max. Boring Diameter	5.906"	7.874"
Max. Boring Depth	1.970"	3.150"

BORING BAR SET INCLUDED

Set	Shank	Min. Bore	(Inch) OAL	Bore Depth	Use Insert	Use Torx Wr.	Use Screw	Item #
4	1/2	7/16	2-3/4	1-1/4	TCMT21-51	T-8	M2.5x5.0	1001-0704
		7/16	3-5/8	2-1/8				
		1/2	3	1-1/2				
		1/2	4	2-1/2				
8	3/4	7/16	3-3/8	1-3/8	TCMT21-51	T-8	M2.5x5.0	1001-0708
		7/16	4-1/4	2-1/4				
		1/2	3-5/8	1-5/8				
		1/2	4-5/8	2-5/8				
		9/16	3-7/8	1-7/8				
		9/16	5	3				
		11/16	4-1/4	2-1/4				
		11/16	5-1/2	3-1/2				

Pro-Series OFFSET BORING TOOL SETS

- Rugged construction for smooth and chatter-free boring.
- Heat treated parts made from SCM steel.
- Feeding quantity cutting will proceed 0.0008" at every scale of 0.0004".
- Set complete with Boring Head, Boring Shank, Boring Bars, Adapters and L-shape Hex Wrenches.
- Dial on head with 0.0005" graduation for accurate hole sizing.
- Fitted durable carry case included.

OPTIONAL NT40 SHANK
3800-5951



OPTIONAL R8 SHANK
3800-5950



SPECIFICATIONS	
Boring Head Shank Hole	M36
Offset	1.1"
Crosshole	3/4"
Shank Thread (Drawbar End):	
R8	7/16"-20 UNC
NT 40	5/8"-11 UNC
Mini. Boring Diameter	0.197"
Max. Boring Diameter	9.840"
Max. Boring Depth	3.540"
Boring Bars Size	3/8" & 3/4"
Adapter 1 (Hold 3/8" Boring Bar)	Ø3/4" x Ø3/8" x 2"
Adapter 2 (Hold 1/4"x1.2" Square Tool Bit)	Ø3/4" x 3.5"
Adapter 3 (Hold 1/4"x1.2" Square Tool Bit)	Ø3/4" x 4.7"











MADE IN TAIWAN

HHIP PRO-SERIES

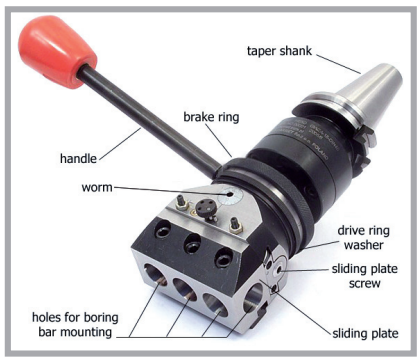


3800-5945 Shown

Item#	Boring Head (Dia.)	Included Shank	No. of Boring Bar/Adapter	Boring Bar Hole Size	N.W. (lbs.)
3800-5945	3.3"	R8	5/3	3/4"	11
3800-5947	3.3"	NT/NMTB 40	5/3	3/4"	12

VERTEX® R8 3 Inch UNIVERSAL BORING & FACING HEAD SET

- Main part of the universal boring head is the body (1), in which the tool slide (3) moves on dovetail guideways. The tool slide is provided with holes for accommodation of tools and tool holders (4). In boring holes or turning extenal cylindrical surfaces, the tool is adjusted with the aid of the graduated dial for fine setting of tool slide (5), one division of which means a change in diameter of bored hole by .0005". On the types rapid adjustment of the tool slide (3) can be produced by rotating the graduated dial for quick adjustment of the tool slide (2). During recessing, turning of front or rear facings or similar jobs calling for automatic transverse feed movement to the tool slide, the preselected feed movement to the tool slide is engaged with the aid of the engagement ring (6). After setting of tool, the automatic transverse feed movement to the tool slide is started by braking fo the brake ring (7), by means of the handle (8). The cluth (9) provides for tripping of the automatic feed movement when cutting resistance increases or when the trip dog is approached. Mechanism of the boring heads has a lubrication circuit delivering oil from two lubricators to all friction surfaces. All parts are hardend and working surfaces are ground.



MADE IN TAIWAN

GRADUATION: 0.01MM



Boring Range: 5~250mm Dia.
1001–6008

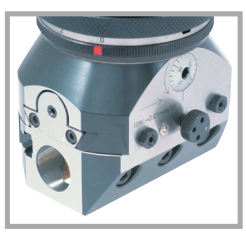
- ***Set Includes:***
  1 - Boring Head
  1 - R8 Shank
  4 - Carbide Tipped Boring Bars
  1 - BP-21 Adapter
  2 - Adapter
  (Hold 1/4" Square Tool Bit)
  2 - Clamping Sleeve
  1 - Stop Rod
  1 - HSS 1/4" Square Tool Bit
  3 - Allen Wrenches
  1 - Fitted Carry Case

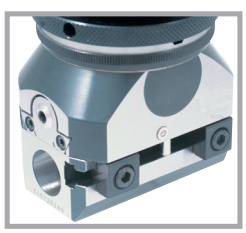


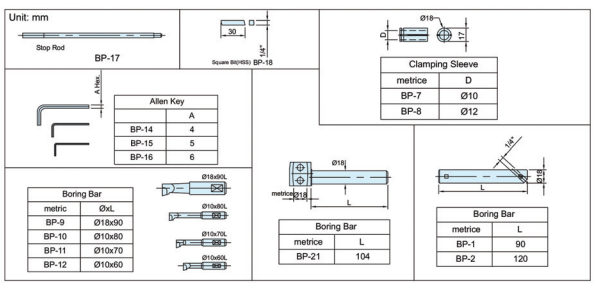
SPECIFICATION (mm)

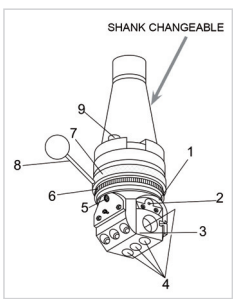
Actual Size	Overing Bar Hole Size	Boring Bar Hole Size	Center Dist. Between Holes	Cross Hole Dia.	Offset
78	100	18	23	18	15

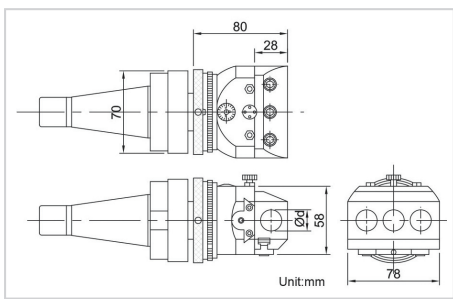








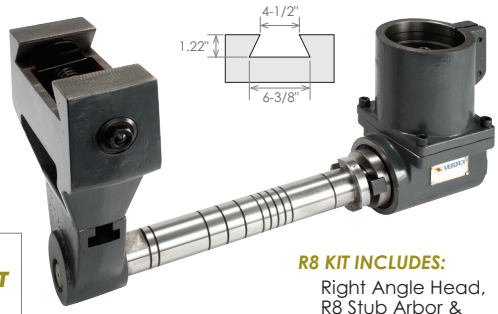




MACHINE TOOL ACCESSORIES

VERTEX® R8 RIGHT ANGLE ATTACHMENT KIT

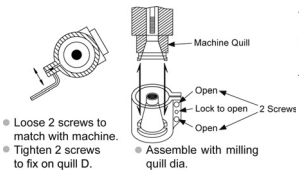
- Suitable for most mills
- Your vertical mill to a horizontal mill
- Designed to simplify right angle work by reducing the need for special tooling and complex fixtures
- For use on your R8 spindle with 3-3/8" overall diameter
- Max. speed: 2000 RPM

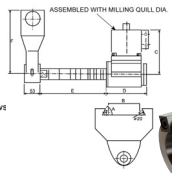


MADE IN TAIWAN

R8 KIT WITH HORIZONTAL SUPPORT
3012–1018

R8 KIT INCLUDES:
Right Angle Head, R8 Stub Arbor & Drawbar Extension Socket







R8 ANGLE HEAD KIT
3012–1008



MILLING MACHINE DRAW BARS

for ***Bridgeport***® mills

7/16"~20 THREADER





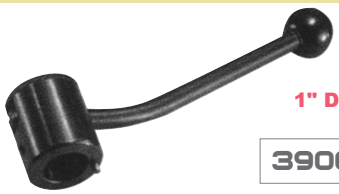


Double Life Model

Item#	Description	OAL
3900-0205	For Step Pulley	21-1/8"
3900-0207	For Variable Speed	24-3/16"

QUICK INDEXING QUILL FEED HANDLE

- Speeds up all operations and allows to move the handle into any position.
- For mill with 1" diameter hub.
- Quick flick of wrist retracts index plate pin of quill.
- Spring loaded pin activates quill speed.

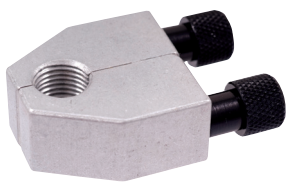


1" DIA. HUB

3900–0201

QUILL STOP

- Increase productivity-reduce cost.
- For Bridgeport, any other mill with 1/2"~20 stop rod.
- Rapid depth setting on quill.
- Fast on-off clip action.
- Rigid clamping.



3900–0200

2 IN 1 DRAWBAR HAMMER/WRENCH

- Hammer head made from brass
- 2 in 1 drawbar tools



3129–0010
3/4" Hex Shape, OAL: 11.4"

3129–0011
13mm Hex Shape, OAL: 7-3/4"

Pro-Series HEAVY DUTY 150 LBS. POWER TABLE FEEDS

- Complete with all hardware.
- 110V/ 60Hz/ 1 PH power supply.
- Adjustable table speeds.
- 150 lbs torque guaranteed.
- Rapid speed switch.

for ***Bridgeport***® type mills

MADE IN TAIWAN

Bridgeport BRAND REQUIRES MODIFICATION

Replacement Plastic Gear (Item #3129-0001)



X-Axis (Longitudinal Feed)	Y-Axis (Cross Feed)	Z-Axis (Knee Feed)
3129–0150	3129–0156	3129–0157

QUICK QUILL FEED (Z-Axis) ADAPTER -Driven by Power Drill

- Works with 1/2" power drill speeds up quill (knee) operation function as a power feed
- Fits most mills with 5/8" diameter hub
- Heavy duty made, hardened steel
- Flats cut on shaft for stronger power drill grip

3129–0015



SPINDLE SQUARE

A SIMPLE SOLUTION T SQUARING YOUR MACHINE

Just zero indicators on flat surface, install in milling machine spindle , bring the spindle down to the table and adjust the head until both indicators read the same. It's that simple!

- 1/2" shank.
- Fully assembled with indicators mounted and ready for use.
- Can also be used with a sine bar or protractor to set angle.
- No more tramming or split reading, compensating for loose worn gears or mirrors.
- Supplied with fitted case

4401-0060



EDGE FINDERS, CENTER FINDERS & SET

- Accurately locates the starting point for all types of machine work and jig boring
- Hardened and ground all over
- Accuracy .0002"

4 PC SET
4401-0048
4401-0029,4401-0030,4401-0032,4401-0041



Item#	Style	End	Shank Dia	Tip Dia
4401-0029	Edge & Edge	Double	1/2"	.20/.50"



Item#	Style	End	Shank Dia	Tip Dia
4401-0040	Edge & Center	Double	3/8"	0.200"
4401-0041	Edge & Center	Double	1/2"	0.200"



Item#	Style	End	Shank Dia	Tip Dia
4401-0030	Edge	Single	3/8"	0.200"
4401-0031	Edge	Single	1/2"	0.200"
4401-0032	Edge	Single	1/2"	0.500"

EDGE FINDERS, CENTER FINDERS - Metric Shank

- Accurately locates the starting point for all types of machine work and jig boring
- Hardened and ground all over
- Accuracy .0002"



Item#	Style	End	Shank Dia	Tip Dia
4406-0042	Edge	Single	12mm	4mm
4406-0044	Edge	Single	10mm	10mm



Item#	Style	End	Shank Dia	Tip Dia
4406-0032	Edge & Center	Double	10mm	4mm

WIGGLER OR CENTER FINDER SET

- The original snap-in ball and socket wiggler
- For accurately locating working points on drill press, milling and other machines

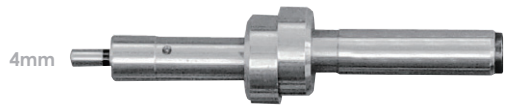
SET INCLUDE:
- Snap-in holder, needle point, disc point & ball shaft

5 PC SET
4401-0045

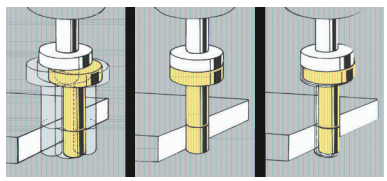


Z TYPE EDGE FINDERS - Metric Shank

- The edge finder is a processing tool used to help accurate positioning. It can locate edges of work pieces with reference to the centerline of the spindle to which it is attached and also height offsets.







Item#	Shank Dia	Tip Dia
4406-0046	10mm	4mm
4406-0047	10mm	10mm

DOUBLE END EDGE FINDERS - Metric Shank

- **Accurate Workpiece Positioning** – Designed to precisely locate workpiece edges relative to the spindle centerline for accurate machining setup.
- **Dual-End Tip Design** – Features two measuring ends for added versatility, allowing quick edge location and height offset reference.
- **High Accuracy Performance** – Manufactured to deliver accuracy up to 0.005mm, ensuring reliable and repeatable results.
- **Durable Precision Construction** – Built for shop use with a rigid, precision-machined body for long service life and consistent performance.



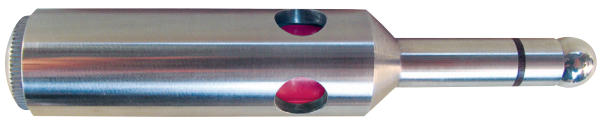
Item#	Shank Dia	Small Tip Dia	Large Tip Dia
4406-0039	10mm	4mm	10mm
4406-0040	12mm	4mm	12mm

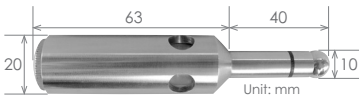
ELECTRONIC EDGE FINDER
- 20MM SHORT SHANK AUDIBLE

- **Fast, Accurate Edge Location** – Quickly locates workpiece edges to save setup time and improve machining accuracy.
- **Audible & Visual Indication** – Beeps and lights up simultaneously when contact is made for clear, reliable edge detection.
- **High Precision Ground Construction** – Precision-ground on all surfaces for consistent results and long-term accuracy.
- **One-Piece Durable Design** – Solid construction provides strength and repeatability with accuracy within ±0.0002"/.005mm.
- **Short Shank for Compact Setups** – 20mm short shank design is ideal for tight spaces on CNC and manual milling machines.
- Uses 2 of SR44 battery(Included)

Limited Supply!

4401-0038M





SPECIFICATIONS
Ball diameter.....10mm
Shank diameter.....20mm
Overall length.....103mm

REPLACEMENT BATTERY SR 44 (ITEM #4102-0030)

ELECTRONIC EDGE FINDER

- Will locate work surfaces quickly and easily at almost any angle.
- B40 "beeps" when stylus meets conductive metal surface.
- Great for blind and deep applications.
- All models have 5 LED lights -last for years without replacement.
- 12 V batteries included
- Repeatability ± .0002"
- Precision ground on all surfaces



4401-0034

SPECIFICATIONS

Style	Shank	Stylus Break-Away	Beep
B20	1/2"	.200"	No

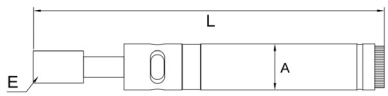
Dasqua® ELECTRONIC EDGE FINDER
-1/2" Shank & 6 Lights

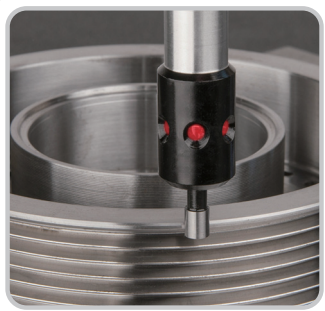
Manufactured and inspected at world class factory that produces highest quality US brands.



- Edge finder lights instantly when stylus touches work edge.
- Six equally spaced light ports provide visibility at any angle.
- Read off any electrically conductive metal.
- Repeatability: 0.0002".







Item#	L	A	E	Accuracy	Battery
5761-0045	4.13"	Ø1/2	Ø0.2"	±0.0002"	12Volt

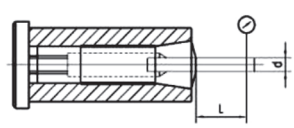
11 PC R8 ROUND COLLET SET, T-SLOT CLEANER & TOOL TRAY

NEW

11 PC R8 ROUND COLLETS (1/8~3/4" BY 16THS):

- The 11 piece R8 collet set is 1/8-3/4" by 16ths and is made of hardened, high grade tool steel.
- These collets have been precision ground to close tolerance with a runout of 0.0007".
- They are internally threaded - 7/16" -20.
- A t-slot cleaner is included.

d	L(mm)	Run out
1/16-1/8	12.70	0.0007"
1/8-3/8	25.40	0.0007"
3/8-5/8	38.10	0.0007"
5/8-7/8	50.80	0.0007"







COMBO SET
9999-0044



R8 COLLET & TOOL TRAY

- The convenient tray will cut down set up and tool changing time allowing the operator to work in a more organized manner.
- The tray is easy to install by drilling and tapping two holes in the base casting 1" below the degree ring.

T-slot cleaner fits most of Bridgeport type mill tables



Pro-Series R8 ROUND COLLET SET

- Guaranteed T.I.R : < 0.0005" .
- Made of high grade tool steel.
- Hardened and precision ground.
- Internally Threaded: 7/16" -20



HHIP PRO-SERIES

13 PC SET
3900-0701
1/8 ~ 7/8 by 16ths

R8 ROUND COLLETS & SETS - Inch

- Made of high grade tool steel.
- Hardened.
- Precision ground to close tolerance.
- Internally threaded: 7/16" -20

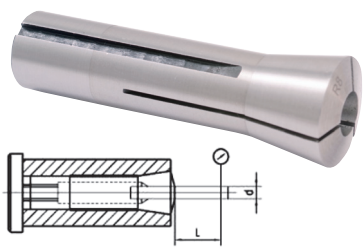


11 PC SET
3900-0007
1/8 ~ 3/4 by 16ths

6 PC SET
3900-0006
1/8 ~ 3/4 by 8ths

7 PC SET
3900-0010
1/8~3/4 by 8ths Plus 3/16

23 PC SET
3900-0009
1/16 ~ 3/4 by 32nds



d	L(mm)	Run out
1/32-1/16	6.35	0.0007"
1/16-1/8	12.70	0.0007"
1/8-3/8	25.40	0.0007"
3/8-5/8	38.10	0.0007"
5/8-7/8	50.80	0.0007"

Item#	Size (Inch)	Item#	Size (Inch)
3900-0008	1/16	3900-0814	1/2
3900-0801	3/32	3900-0815	17/32
3900-0802	1/8	3900-0816	9/16
3900-0803	5/32	3900-0817	19/32
3900-0804	3/16	3900-0818	5/8
3900-0805	7/32	3900-0819	21/32
3900-0806	1/4	3900-0820	11/16
3900-0807	9/32	3900-0821	23/32
3900-0808	5/16	3900-0822	3/4
3900-0809	11/32	3900-0823	25/32
3900-0810	3/8	3900-0824	13/16
3900-0811	13/32	3900-0825	27/32
3900-0812	7/16	3900-0826	7/8
3900-0813	15/32	3900-0827	1

11 PC R8 COLLET SET & 12 PC R8 COLLET RACK COMBO

11 Piece R8 Collet Set - 1/8-3/4" x 16ths (3900-0007)

- Hardened and precision ground to close tolerance.
- Made of high grade tool steel.
- Run out is 0.0007".
- Internally threaded: 7/16"-20.

R8 12 Piece Collet Rack (3900-0016)

- Open and close cover protects collets from debris.
- Mounting bolts are included.
- Easy side mount with two screws.

4951-0008



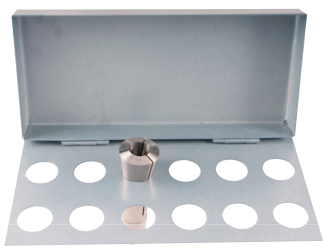
12 PC R8 COLLET RACK



3900-0016

- Easy side mount with two screws.
- Open, close cover protects collets from debris.

HOLDS 12PC R8 COLLETS



COLLET NOT INCLUDED

R8 ROUND COLLETS & SET - Metric

- Made of high grade tool steel.
- Hardened.
- Precision ground to close tolerance.
- Internally threaded: 7/16" -20



10 PC SET
3903-0006
3,4,5,6,8,10,12,14,18,20mm

Item#	Size (mm)	Item#	Size (mm)
3903-0102	2	3903-0122	12
3903-0104	3	3903-0124	13
3903-0106	4	3903-0126	14
3903-0108	5	3903-0128	15
3903-0110	6	3903-0130	16
3903-0112	7	3903-0132	17
3903-0114	8	3903-0134	18
3903-0116	9	3903-0136	19
3903-0118	10	3903-0138	20
3903-0120	11		

R8 TOOLING & RACKS

R8 ROTATING COLLET HOLDER

- Easily mounts anywhere for quick accessibility.
- Hold 11 R8 collets.
- Made of durable ABS material.



3900–1608

R8 COLLET & TOOL TRAY

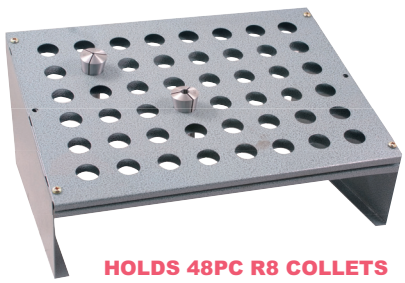
- This convenient tray will cut down set up and tool changing time.
- Operator works more organized.
- Easy to install, drill and tap two holes in the base casting 1" below the degree ring.



3900–1601

48 PC R8 COLLET RACK

- Baked enamel paint finish.
- Hangs on wall or machine, or sets on a shelf or work bench.



3900–1605

COLLETS NOT INCLUDED

HOLDS 48PC R8 COLLETS

R8 END MILL HOLDERS & SETS

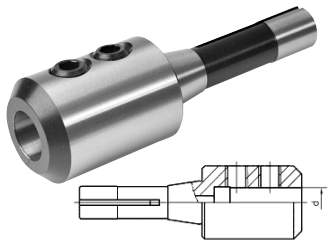
- Hardened and ground.
- For Bridgeport type milling machines.
- For double and single end mill (single end mill only for sizes over 5/8").

DRAWBAR END THREAD: 7/16" -20



5 PC SET
3900–1005
3/16, 3/8, 1/2, 5/8, 3/4"

8 PC SET
3900–1008
3/16, 3/8, 1/2, 5/8, 3/4, 7/8, 1, 1-1/4"



Item#	Size (d)
3900-0100	1/8"
3900-0101	3/16"
3900-0112	1/4"
3900-1211	5/16"
3900-0102	3/8"
3900-0121	7/16"
3900-0103	1/2"
3900-0104	5/8"
3900-0105	3/4"
3900-0106	7/8"
3900-0107	1"
3900-0108	1-1/4"
3900-0109	1-1/2"

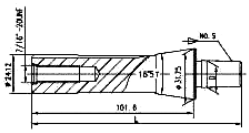
R8 TO JACOBS DRILL CHUCK ARBORS

HARDENED & GROUND

for ***Bridgeport***® type mills



DRAWBAR END THREAD: 7/16" -20



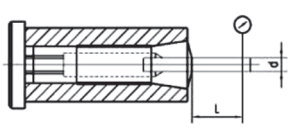
Item#	Arbor Taper to Chuck	D (mm)	L (mm)
3700-0131	R8 to JT33	15.85	132
3700-0135	R8 to JT2	14.199	128
3700-0138	R8 to JT3	20.599	137
3700-0139	R8 to JT4	28.55	148
3700-0140	R8 to JT6	17.17	132

11 PC R8 ROUND COLLET SET - WITH ROTATING COLLET HOLDER

11 PC R8 ROUND COLLETS (1/8~3/4" BY 16THS):

- The 11 piece R8 collet set is 1/8-3/4" by 16ths and is made of hardened, high grade tool steel.
- These collets have been precision ground to close tolerance with a runout of 0. 0007".
- They are internally threaded - 7/16" -20.
- A t-slot cleaner is included.

d	L(mm)	Run out
1/16-1/8	12.70	0.0007"
1/8-3/8	25.40	0.0007"
3/8-5/8	38.10	0.0007"
5/8-7/8	50.80	0.0007"







NEW

COMBO SET
9999–0045

R8 ROTATING COLLET HOLDER:

- Easily mounts anywhere for quick accessibility.
- Hold 11 R8 collets.
- Made of durable ABS material.



Free!

T-slot cleaner fits most of Bridgeport type mill tables

R8 SHELL END MILL HOLDERS

for ***Bridgeport***® type mills

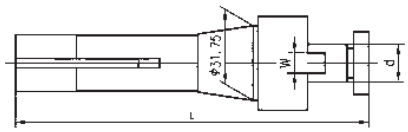
DRAWBAR END THREAD: 7/16" -20



Shell end mill holder screws shown on page 243.

5 PC SET
3900–1710
1/2, 3/4, 1, 1-1/4, 1-1/2"

HARDENED & GROUND

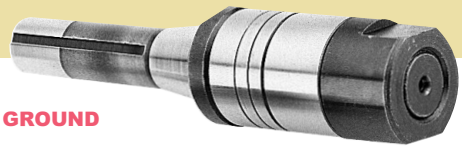


INDIVIDUALS

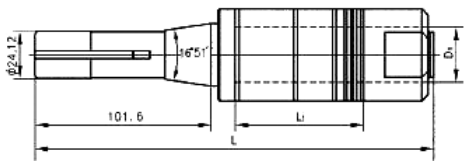
Item#	d	W (mm)	L (mm)	Dia. Range of Std. End Mill
3900-1711	1/2"	6.35	150	1-1/4 to 1-1/2"
3900-1712	3/4"	7.94	154	1-1/4 to 2-1/2"
3900-1713	1"	9.53	155	2-1/4 to 2-3/4"
3900-1714	1-1/4"	12.70	156	3 to 3-1/2"
3900-1715	1-1/2"	15.88	163	4 to 5"

STUB MILLING MACHINE ARBORS

for ***Bridgeport***® type milling machines



HARDENED & GROUND

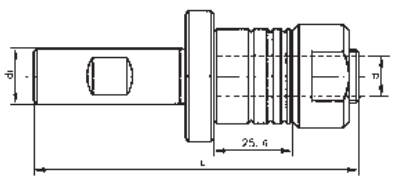


Item#	Shank	Dia. of Arbor	Length Shoulder to Nut
3900-0110	R8	1"	2"
3900-0111	R8	1-1/4"	2"

STRAIGHT SHANK STUB MILLING MACHINE ARBORS

- **Manufactured from 40Cr Alloy Steel (Chromium & Molybdenum)** – Delivers excellent strength, toughness, and durability for demanding machining applications.
- **High Hardenability & Wear Resistance** – Ideal for extended tool life under heavy cutting loads and repeated use.
- **Rigid Stub Design** – Minimizes deflection and vibration, improving surface finish and machining accuracy.
- **Versatile Industrial Applications** – Suitable for use in manufacturing gears, shafts, bolts, studs, and other high-strength components.
- **Heat-Treatable Material** – Allows enhanced mechanical properties for demanding environments and longer service life.
- **Includes Standard Keyways & Left-Hand Arbor Nut** – Ensures secure cutter mounting and safe operation during high-speed machining.





Length of Shoulder to Nut: 1"

Item#	Shank d1 (Inch)	Dia. of Arbor d (Inch)	L (Inch)
3900-0156	1/2	1/2	4.0
3900-0157	1/2	5/8	4.0
3900-0158*	1/2	3/4	4.2
3900-0161	3/4	3/4	4.4
3900-0162	3/4	7/8	4.4
3900-0163	3/4	1	4.7
3900-0164	3/4	1-1/4	4.7
3900-0115*	1	3/4	5.78
3900-0116	1	1	5.9

* Limited Supply

SLOTTING SAW ARBORS & SET

- **2-Piece Slotting Saw Arbor Set** – Includes R8 shank and 1/2" straight shank arbors with collars, pilot pins, flange, and nut.
- **Dual Machine Compatibility** – Fits R8 spindle mills and standard 1/2" collets or tool holders.
- **Hardened Steel Construction** – Built for strength, durability, and long service life.
- **Secure Cutter Clamping** – Flange and locking nut help reduce vibration and chatter.



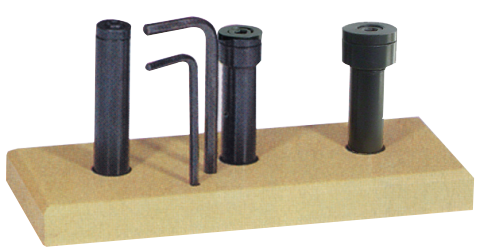


INDIVIDUAL ARBORS

Item#	Shank	OAL	For Saw Hole Size
3900-0144	**R8**	5-3/32"	1/2, 5/8, 3/4, 7/8 & 1"
3900-0145	**1/2"**	2-9/16"	1/2, 5/8, 3/4, 7/8 & 1"

2 PC SET
3900–0151

CIRCULAR SAW ARBORS



- 1/2" SHANK
- Up to 3/16" thickness
- Steel, heat treated shank

3 PC SET
3900–0150
1/4, 3/8, 1/2" Hole Sized

INDIVIDUALS

Item#	OD Flange	For Saw Hole Size
3900-0147*	1/2"	1/4"

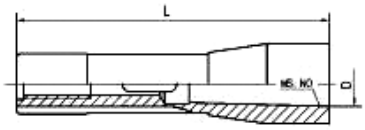
* Limited Supply

R8 TO MORSE TAPER SLEEVES



- Made of high grade tool steel.
- Hardened and precision ground.

Thread of Drawbar End:
R8- 7/16" -20



Item#	Description	D (mm)	L (mm)
3900-1812	R8 to MT2	17.78	127
3900-1813	R8 to MT3	23.825	153
3900-1814	R8 to MT4	31.267	240

MORSE TAPER (MT) SLEEVES

- Used to convert spindles to larger or smaller tapers and extend the spindles of drill presses, radial drills, boring mills and turret lathes.



INDIVIDUALS

Item#	Inside Taper	Outside Taper
3900-1843	MT1	MT2
3900-1841	MT1	MT3
3900-1842	MT2	MT3
3900-1844	MT2	MT4
3900-1848	MT3	MT4
3900-1849	MT3	MT5
3900-1853	MT4	MT5
3900-1856	MT5	MT6

4 PC SET
3900–1850
MT1-MT2, MT2-MT3, MT3-MT4, MT4-MT5

MORSE TAPER EXTENSION SOCKETS

- For adapting tools with morse taper shanks to machines having smaller, same or larger morse taper spindle.



Item#	Inside Taper	Outside Taper
3900-1845	MT3	MT2
3900-1852	MT4	MT3
3900-1872	MT5	MT4

Pro-Series DAYTON STYLE HAND DRIFT TOOL

- Forged and hardened, high rigid tools.
- Used to remove taper shank tools from machinery spindles, sleeves, and extension sockets.
- Morse Taper Drift Range: MT2 ~ MT5



15" LONG



Range MT2-MT5
3900–0267

MADE IN TAIWAN

TAPER SHANK DRIFT/CENTER KEYS & SETS

HHIP taper shank drift keys are used for removing Morse taper tools from the sockets of machine spindles. These keys help disengage the taper shank tool (such a drills, reamers or milling cutters) by gently tapping it out of the spindle taper, ensuring a secure and controlled removal without damaging the tool or the spindle.

- **Flattened End** – the end of the drift key is flattened to provide a surface for striking with a hammer. This allows the user to tap the key gently to release the Morse taper tool.
- **Size Markings** – Morse taper drift keys are marked with the corresponding Morse taper size to help quickly identify the right tool for the job.
- **Corrosion Resistant** – These drift keys are treated to resist corrosion.
- **Precision Fit** – Our keys are designed for a precision fit with the Morse taper it is intended to work with. This ensures that it can effectively dislodge the tool from the spindle or sleeve without causing damage.
- **Durable Construction** – HHIP drift keys will withstand the mechanical stresses involved in separating Morse taper tools. The high-quality fully drop-forged construction contributes to their longevity.

4 PC SET
3906–0265
MT1, MT2, MT3 & MT4

3 PC SET
3906–0266
MT1, MT2 & MT3





INDIVIDUALS

Item#	Size for
3900-0261	MT1
3900-0262	MT2
3900-0263	MT3
3900-0264	MT4,5,6

RE-MACHINEABLE MT TAPER BLANK END ARBORS - Drawbar End

- These can be machined as per individual requirement for mounting chucks etc.
- Made of quality tool steel-shanks are precisely ground.
- Adapt the blank end to serve as an adapter for transitioning between different tooling systems.
- Customize the end to attach specialized cutting tools, enabling precision in specific machining operations.



MT2 & Blank End (28x30mm)
3706–1002
Drawbar Thread: M10x1.50

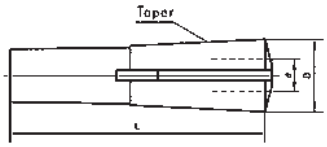
MT3 & Blank End (28x28mm)
3706–1003
Drawbar Thread: M12x1.75

MORSE TAPER COLLETS & SETS

- Morse taper: external.
- Made of high grade tool steel.
- Hardened and precision ground to close tolerance.



Drawbar End Threads:
MT2: 3/8" ~ 16
MT3: 3/8" ~ 16



MT3, 7 PC SET
3900-0893
1/8~3/4" x 8THS & 3/16"

MT2, 7 PC SET
3900-0850
1/8~1/2" x 16THS

MT3 SHANK

Item#	Hole Dia.	(mm) D	L
3900-0855	1/8"	24.1	86
3900-0859	3/16"	24.1	86
3900-0863	1/4"	24.1	86
3900-0865	5/16"	24.1	86
3900-0867	3/8"	24.1	86
3900-0875	7/16"	24.1	86
3900-0883	1/2"	24.1	86
3900-0887	5/8"	24.1	86
3900-0889	11/16"	24.1	86
3900-0891	3/4"	24.1	86

MT2 SHANK

Item#	Hole Dia.	(mm) D	L
3900-0837	1/8"	18	68
3900-0839	3/16"	18	68
3900-0841	1/4"	18	68
3900-0843	5/16"	18	68
3900-0845	3/8"	18	68
3900-0847	7/16"	18	68
3900-0849	1/2"	18	68

SOLID SOCKETS WITH MORSE TAPER HOLES

- Made of high quality tool steel.
- Solid sockets with Morse taper holes are used to adapt Morse taper tools to straight turrets. The size of the socket is dictated by the machine it is used on. A larger taper might be a better choice if adapters are available to use a smaller taper in a larger socket

MT1 (3700-0331) Shown



MT4 (3700-0346) Shown



Item#	Inside Morse Taper	Socket O.D.	Socket OAL
3700-0331	1MT	1	3-1/2
3700-0332		1-1/4	
3700-0333		1-1/2	
3700-0335	2MT	1	4
3700-0336		1-1/4	
3700-0337		1-1/2	
3700-0338		1-3/4	
3700-0339		2	
3700-0341	3MT	1-1/4	4-3/4
3700-0342		1-1/2	
3700-0343		1-3/4	
3700-0344		2	
3700-0346	4MT	1-1/2	6
3700-0347		1-3/4	
3700-0348		2	

MORSE TAPER END MILL HOLDERS

- For single end mills.
- **Drawbar End Thread**
  MT2- 3/8" - 16
  MT3- 3/8" - 16
  MT4- 1/2" - 13

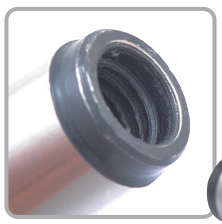


Item#	Shank Taper	Hole Dia.
3900-1217	MT2	3/16"
3900-1212	MT2	1/4"
3900-1215	MT2	3/8"
3900-1214	MT2	1/2"
3900-0127	MT3	3/16"
3900-0128	MT3	3/8"
3900-0129	MT3	1/2"

Item#	Shank Taper	Hole Dia.
3900-0130	MT3	5/8"
3900-0131	MT3	3/4"
3900-0132	MT3	7/8"
3900-0133	MT3	1"
3900-0140	MT4	1"
3900-0141	MT4	1-1/4"
3900-0142	MT4	1-1/2"

FLY CUTTERS - Morse Taper Shank

- A fly cutter usually has two cutting heads and it is able to cut with a constant depth to face any surface to obtain a uniform surface.
- Utilizes standard tool bits.
- Counter balanced.
- Made of durable hardened steel.



4006-0022 Shown



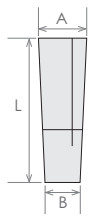
4006-0023 Shown

Item#	Shank	Diameter of Head (In)	Fit Tool Bit (In)	Drawbar Thread
4006-0022	MT2	1.5	3/16	3/8~16
4006-0023	MT3	1.5	1/4	1/2~13

Tool bits shown on page 144.

Brown & Sharpe TAPER ROUND COLLETS

- Made of high grade tool steel.
- Precision ground and hardened.





≤ 0.0008" TIR

DIMENSIONS

Taper	A	B	L	Drawbar End
#7	0.725"	0.600"	3.00"	3/8"~16
#9	1.067"	0.900"	4.00"	1/2"~13

#7 TAPER COLLETS

Item#	Size
3900-0970	1/8"
3900-0972	3/16"
3900-0973	1/4"
3900-0974	5/16"
3900-0975	3/8"
3900-0976	7/16"
3900-0977	1/2"

#7, 7 PC SET
3900-0979
1/8 ~ 1/2 by 16ths

#9, 11 PC SET
3900-0985
1/8 ~ 3/4 by 16ths

#9 TAPER COLLETS

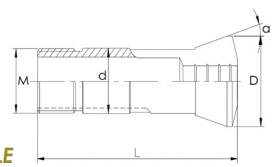
Item#	Size
3900-0989	1/8"
3900-0990	3/16"
3900-0991	1/4"
3900-0992	5/16"
3900-0993	3/8"
3900-0994	7/16"
3900-0995	1/2"
3900-0996	9/16"
3900-0997	5/8"
3900-0998	11/16"
3900-0999	3/4"

SCHAUBLIN STYLE LATHE COLLETS

- Made of high quality tool steel
- Hardened and precision ground to highest concentricity.
- These collets are closed by being drawn back into the collet seating by means of a draw bar.
- The W10 collets differ from the other pull-type collets because of their external thread, which has a nominal diameter almost identical to the collet shank diameter.
- The collets only open a minimal amount.



- The pull-type collets generally only clamp the nominal diameter.
- To obtain optimal concentricity, it is recommended not to clamp less than 0.1 mm below the nominal diameter.





W10 STYLE

Item#	Size D
3900-4967*	1/8"
3900-4968*	9/64"
3900-4969*	5/32"
3900-4970*	11/64"
3900-4971*	3/16"

Item#	Size D
3900-4972*	13/64"
3900-4973*	7/32"
3900-4974*	15/64"
3900-4975*	1/4"

* Limited Supply

DIMENSIONS

Style	Type	D	d	Thread M	a	L
W10	Inch	14mm	9mm	M8.74X0.833	15°	50mm
W20	Inch	1.036"	.7874	M19.7x1.666	15°	2.874"
W20	Metric	26.3mm	20mm	M19.7x1.666	15°	73mm

W20 STYLE

Item#	Size
3903-0804	4mm
3903-0805	5mm
3903-0806	5.5mm
3903-0808	6mm
3903-0809	6.5mm
3903-0812	7mm
3903-0815	8mm
3903-0816	10mm
3903-0818	12mm
3903-0822	14mm

Item#	Size
3903-0904	1/8"
3903-0906	3/16"
3903-0908	1/4"
3903-0910	5/16"
3903-0912	3/8"
3903-0914	7/16"
3903-0916	1/2"
3903-0918	9/16"

HYDRAULIC CHUCK REDUCTION SLEEVES

- **High-Precision Hydraulic Reduction Sleeve** – Allows a single hydraulic chuck to accommodate multiple tool shank sizes, reducing toolholding costs.
- **Ultra-Low Runout Accuracy** – Precision manufactured with maximum T.I.R. ≤ 0.00012" (0.003 mm) for superior concentricity and cutting accuracy.



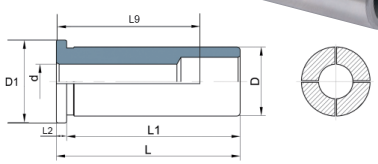


3901-3929
Shown



3901-3967
Shown





- **Premium Tool Steel Construction** – Made from high-quality tool steel for durability, stability, and long service life in demanding CNC environments.
- **Strong Clamping & Vibration Control** – Maximizes gripping force inside the hydraulic chuck, improving surface finish and extending tool life.
- **Through-Coolant Capable Design** – Sealed construction supports through-coolant applications, directing coolant efficiently to the cutting edge.

Max. T.I.R. ≤ 0.00012"/0.003mm

Item#	O.D. (D)	I.D. (d)	Bore Length (L9)	Sleeve Length (L1)	OAL (L)
3901-3923	3/4"	3/16	1.69"	1.99"	2.10"
3901-3925		1/4	1.60"		
3901-3927		5/16	1.60"		
3901-3929		3/8	1.60"		
3901-3933		1/2	1.60"		
3901-3937		5/8	1.60"		
3901-3955	1-1/4"	1/4	1.97"	2.40"	2.54"
3901-3957		5/16	1.97"		
3901-3959		3/8	1.97"		
3901-3963		1/2	2.14"		
3901-3967		5/8	2.14"		
3901-3971		3/4	2.14"		
3901-3975		1	2.14"		

NMTB 30 & 40 TAPER TO JACOBS ARBORS

- Hardened and precision ground.

Jacob Taper	Taper 30 Item#	Taper 40 Item#
JT2	3900-1762	3900-1772
JT3	3900-1763	3900-1773
JT33	3900-1764	3900-1774
JT6	3900-1766	3900-1776

Drawbar End:
#30- 1/2" -13
#40- 5/8" -11

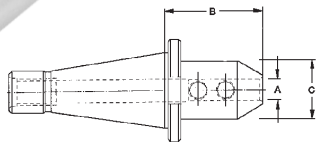


NMTB 30 & 40 TAPER END MILL HOLDERS

- For milling machines having 30-40 standard taper spindles.
- Hardened and precision ground.
- Accepts single and double end mills. (single end mill only for sizes over 7/8").



Drawbar End:
#30- 1/2" -13
#40- 5/8" -11



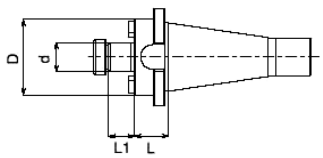
Bore A	Taper 30 Item#	B	C	Taper 40 Item#	B	C
3/16	3900-1690	1.75"	0.75"	3900-1700	2.31"	0.75"
1/4	3900-1683	1.75"	0.79"	3900-1718	2.31"	0.79"
5/16	3900-1691	1.75"	0.87"	3900-1701	2.31"	0.87"
3/8	3900-1692	1.75"	1.00"	3900-1702	2-5/16"	1"
1/2	3900-1693	1.75"	1.38"	3900-1703	2-5/16"	1-3/8"
5/8	3900-1694	1.75"	1.43"	3900-1704	2-5/16"	1-5/8"
3/4	3900-1695	2.25"	1.89"	3900-1705	2-5/16"	1-7/8"
7/8	3900-1696	2.50"	2.01"	3900-1706	3.19"	1.93"
1	3900-1697	2.69"	2.36"	3900-1707	2-11/16"	2"
1-1/4	3900-1698	3.62"	2.48"	3900-1708	2-29/32"	2-3/8"
1-1/2	----------	---	---	3900-1709	3.95"	2.99"
2	----------	---	---	3900-2711	3.95"	4.95"

NMTB 30 & 40 TAPER SHELL END MILL HOLDERS

- For shell end mills and indexable face mills.
- Heat treated and precision ground.
- Perfectly concentric to prevent runout of your cutting tools.



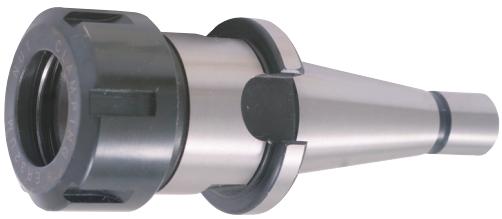
Drawbar End: **#30- 1/2" -13**
#40- 5/8" -11



Bore d	Taper 30 Item#	L	(Inch) D	L1	Taper 40 Item#	L	(Inch) D	L1
3/4"	3900-0742	1.31	1.93	0.67	3900-1742	0.87	1.93	0.67
1"	3900-0743	1.31	2.38	0.67	3900-1743	1.31	2.38	0.67
1-1/4"	3900-0744	1.44	2.88	0.67	3900-1744	1.50	2.88	0.67
1-1/2"	3900-0745	2.00	3.00	0.94	3900-1745	2.00	3.00	0.94
2"	3900-0746	2.50	3.86	0.94	3900-1746	2.50	3.86	0.94

NMTB 30 & 40 SHANK ER COLLET CHUCKS

- Made of high grade tool steel.
- Hardened and precision ground.
- Meets or exceeds Federal specifications.

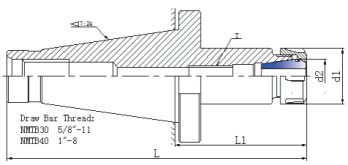


Item#	Shank	Type	Nut Style	Drawbar End
3900-5083	#30	ER-32	Spanner	1/2"~13
3900-5084	#30	ER-40	Spanner	1/2"~13
3900-5088	#40	ER-16	Hex	5/8"~11
3900-5090	#40	ER-32	Spanner	5/8"~11
3900-5091	#40	ER-40	Spanner	5/8"~11

Pro-Series NMTB 30 & 40 SHANK ER COLLET CHUCKS

- Tolerance: 0.0003" Max.

SUPERIOR FINISH & CRAFTSMANSHIP





Item#	Shank	Type	Nut Style	L	(mm) L1	d1	Drawbar End
3901-5083	#30	ER-32	Spanner	128.4	60	50	1/2"~13
3901-5084	#30	ER-40	Spanner	138.4	70	63	1/2"~13
3901-5090	#40	ER-32	Spanner	153.4	60	50	5/8"~11
3901-5091	#40	ER-40	Spanner	163.4	70	63	5/8"~11

Z-AXIS SETTERS

PRECISION DIAL Z-AXIS SETTERS

- Efficient to set "0" point with built in dial indicator.
- Positioning accuracy and repeatability: 0.0004".
- Height: 2" or 4" (with mag base)
- Setter Dimension: 1.45" (square) x 2" (height).



4401-0050



With Mag Base
4401-0051

Pro-Series DIAL Z-AXIS SETTER

- Efficient to set "0" point with built in dial indicator.
- Positioning accuracy and repeatability: 0.0002" .
- With magnetic base.
- Dimension: 2" (square) x 4" (height).

4401-0062



Pro-Series DIAL Z-AXIS SETTERS

- Efficient to set "0" point with built in dial indicator.
- Positioning accuracy and repeatability: 0.0005" .
- Dimension: 2" (square) x 2" (height).
- With fitted wooden case.



With Magnet
4401-0064



Without Magnet
4401-0063

VERTEX® Z-Axis HEIGHT PRE-SETTER

- Base with magnet
- 50mm height
- Reading 0-50-0
- Accuracy: 0.01mm
- Weight: 2.6 lbs.
- Checking bar & case included.

MADE IN TAIWAN

4401-0054



SPINDLE TAPER WIPERS

- For all 30,40 & 50 tapers
- Maintains spindle accuracy and rigid contact
- Multiple usage on tool holder tapers NMTB, CAT and BT



Item#	Taper#
7016-0013	30
7016-0014	40
7016-0015	50

VERTEX® BT TOOL HOLDER TIGHTENING FIXTURE STANDS

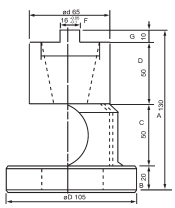
- Lightweight and compact design.
- Quick tool holder setting and locking.
- Securely hold BT tooling for pull stud installation and tool/collet change.

MADE IN TAIWAN





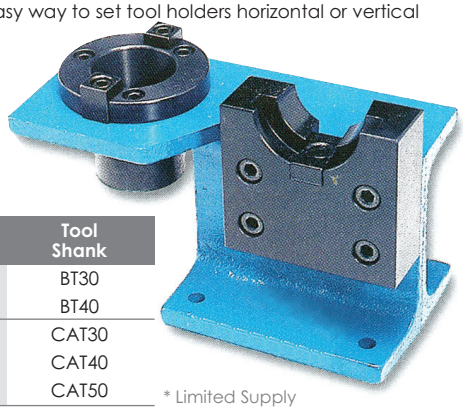
Example



Item#	Shank Taper	D	d	3 Hole P.C.D.	H	(mm) A	B	C	D	E	F	Wt. Lbs.
3900-4091	BT30	90	50	70	14(Dia.)x9x9(Dia.)	108	20	48	30	10	16	2.7
3900-4092	BT40	105	65	85	14(Dia.)x9x9(dia.)	130	20	50	50	10	16	4.9

HORIZONTAL/VERTICAL CNC TOOL HOLDER TIGHTENING FIXTURES

- 2 positions
- For mounting on worktable or cart.
- Quick and easy way to set tool holders horizontal or vertical



Item#	Tool Shank
3900-4080	BT30
3900-4081*	BT40
3900-4083*	CAT30
3900-4084	CAT40
3900-4085	CAT50

* Limited Supply

Dasqua® WATERPROOF DIGITAL IP65 Z-AXIS SETTERS

Battery + CR2032



0.001MM RESOLUTION

- Accuracy (toleranace range): ±0.002mm/0.0001", Repeatability:0.003mm/0.0001"
- 3V Lithium battery CR2032

IP65

- **Used to help tool setting**
  Can be used in IP65 working environment (with inductive measurement against splash water) and will not damage the tool edge
- **Resolution reaches 0.001mm**
  Higher than other zero setting devices
- **Lighting indicating at "0"**
  More obvious and accurate compared to mechanic zero setting device
- **With magnetic base**
  Fixed on machine steadily and shorten tool setting time and improve work efficiency greatly



- **Provided in fitted aluminum case**

Item#	Height	Resolution
1801-1005	50mm	0.001mm/0.00005"
1801-1010	100mm	0.001mm/0.00005"

CAT 40 V-FLANGE H/V TOOL STAND & Dasqua® IP65 DIGITAL ZERO SETTER

NEW

- The tool stand is a quick and easy way to set tool holders horizontally or vertically
- The stand has 2 positions and can be mounted on a work table or cart.
- Also included is a Digital Electronic Waterproof IP65 Z-Axis Setter.
- The setter is easy to set "O" point with the LCD screen.
- The positioning accuracy & repeatability of the setter is 0.001"/0.01mm and the resolution is 0005'/0.01mm.
- The setter is on a magnetic base and is supplied in a fitted metal case.
- The height of spring mounted contact face is 52.5mm, the diameter is 55mm and the overall height is 50mm.
- The setter includes a SR44 battery.





9999-0046

VERTEX® TOOLING RACKS

- **Organizes CNC Toolholders Efficiently** – Keeps taper tooling neatly stored, protected, and ready for faster machine setup changes.
- **Heavy-Duty Steel Construction** – Rugged welded steel frame built for daily machine shop use and long service life.
- **90° Folding Handles** – Convenient side handles fold down for easy carrying, compact storage, and bench placement.
- **Protective Individual Pockets** – Separates holders to reduce metal-to-metal contact and helps prevent damage to precision tapers.

MADE IN TAIWAN



BT30/NT30(NMTB)/CAT30/SK30/ISO30 (HOLDS 8 PC HOLDERS)	BT40/NT40(NMTB)/CAT40/SK40/ISO40 (HOLDS 7 PC HOLDERS)
3900-4096	3900-4098
Weight: 9 Lbs.	Weight: 9 Lbs.

RETENTION KNOBS

Style 1, RETENTION KNOBS - BT 40

- Heat treated alloy steel.
- All dimensions in accordance to ANSI specifications for CAT holders and MAS specifications for BT holders.

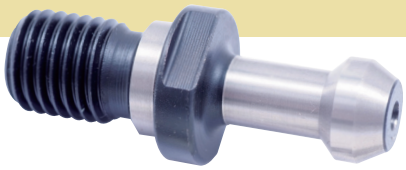




Item#	Machine Taper	Thru Coolant	Thread T.P.I.	Angle A.	Knob Dia. D1 (Inch/mm)	Neck Dia. D2 (Inch/mm)	Hole Dia. D3 (Inch/mm)	Pilot Dia. D4 (Inch/mm)	Dia. D (Inch/mm)	OAL L (Inch/mm)	Shoulder L1 (Inch/mm)	Shoulder L2 (Inch/mm)
3900-5392	BT40	YES	M16x2.0	45°	0.591/15	0.394/10	0.150/3.8	0.669/17	0.906/23	2.374/60.3	1.102/28	2.421/61.5
3900-5393	BT40	YES	M16x2.0	60°	0.591/15	0.394/10	0.150/3.8	0.669/17	0.906/23	2.374/60.3	1.102/28	2.421/61.5
3900-5503	BT40	N/A	M16x2.0	45°	0.591/15	0.394/10	N/A	0.669/17	0.906/23	2.374/60.3	1.102/28	2.421/61.5
3900-5504	BT40	N/A	M16x2.0	60°	0.591/15	0.394/10	N/A	0.669/17	0.906/23	2.374/60.3	1.102/28	2.421/61.5

Style 1, RETENTION KNOBS - CAT 40

- Heat treated alloy steel hardened to HRC 52~56°.
- ANSI/AMSE B5.50-1994





* Limited Supply

Item#	Machine Taper	Thru Coolant	Thread T.P.I.	Angle A.	Knob Dia. D1 (Inch/mm)	Neck Dia. D2 (Inch/mm)	Hole Dia. D3 (Inch/mm)	Pilot Dia. D4 (Inch/mm)	Dia. D (Inch/mm)	OAL L (Inch/mm)	Shoulder L1 (Inch/mm)	Shoulder L2 (Inch/mm)
3900-5485	CAT40	N/A	M16x2.0	45°	0.591/15	0.394/10	N/A	0.669/17	0.906/23	2.244/57	0.984/25	2.362/60
3900-5486*	CAT40	N/A	M16x2.0	60°	0.591/15	0.394/10	N/A	N/A	0.906/23	2.244/57	0.984/25	2.362/60
3900-5491	CAT40	N/A	5/8~11	60°	0.591/15	0.394/10	N/A	N/A	0.906/23	2.244/57	0.984/25	2.362/60
3900-5528	CAT40	N/A	5/8~11	45°	0.591/15	0.394/10	N/A	N/A	0.906/23	2.244/57	0.984/25	2.362/60
3900-5529	CAT40	YES	5/8~11	45°	0.591/15	0.394/10	0.150/3.8	N/A	0.906/23	2.244/57	0.984/25	2.362/60
3900-5539	CAT40	YES	M16x2.0	45°	0.591/15	0.394/10	0.150/3.8	0.669/17	0.906/23	2.244/57	0.984/25	2.362/60

Style 1, RETENTION KNOBS - CAT 50

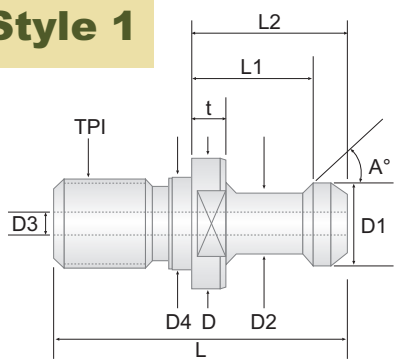
- Heat treated alloy steel hardened to HRC 52~56°.
- ANSI/AMSE B5.50-1994



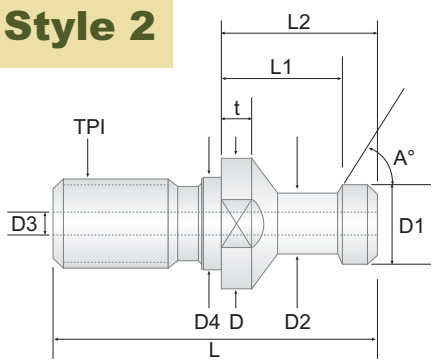


Item#	Machine Taper	Thru Coolant	Thread T.P.I.	Angle A.	Knob Dia. D1 (Inch/mm)	Neck Dia. D2 (Inch/mm)	Hole Dia. D3 (Inch/mm)	Pilot Dia. D4 (Inch/mm)	Dia. D (Inch/mm)	OAL L (Inch/mm)	Shoulder L1 (Inch/mm)	Shoulder L2 (Inch/mm)
3900-5493	CAT50	N/A	1~8	60°	0.906/23	0.669/17	N/A	N/A	1.496/38	3.094/78.6	1.386/35.2	3.937/100
3900-5535	CAT50	N/A	1~8	45°	0.906/23	0.669/17	N/A	N/A	1.496/38	3.094/78.6	1.386/35.2	3.937/100

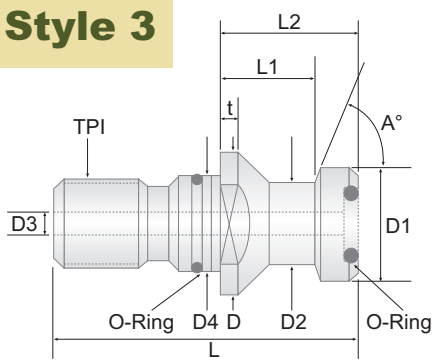
Style 1



Style 2



Style 3



Retention Knob Safety!

Retention knobs are not intended to last forever. Your Safety Program must include Retention Knob Inspections. Knobs must be visually inspected for damage and checked for tightness every time the tool in the holder is changed. Every 2 or 3 years, depending on use, knobs should be removed from the holder and Magnetic Particle inspected. Any Retention Knobs showing indications of cracking must be discarded. If your machine is in a crash, or releases a tool prematurely., this is an indication that either the Retention Knob Fingers. Finger Guide, Belleville Washers in the Spindle, or the Retention Knob is damaged. The machine tool should not be used until inspected by Maintenance Personnel. In this case all the Retention Knobs in the machine should be checked for cracks or damage immediately.

Style 2, RETENTION KNOBS - ISO 40A

- Heat treated alloy steel.
- All dimensions in accordance to ISO/DIS7388/2-1984A specifications.




Item#	Machine Taper	Thru Coolant	Thread T.P.I.	Angle A.	Knob Dia. D1 (Inch/mm)	Neck Dia. D2 (Inch/mm)	Hole Dia. D3 (Inch/mm)	Pilot Dia. D4 (Inch/mm)	Dia. D (Inch/mm)	OAL L (Inch/mm)	Shoulder L1 (Inch/mm)	Shoulder L2 (Inch/mm)
3900-5376	ISO40A	N/A	M16x2.0	15°	0.748/19	0.551/14	N/A	0.669/17	0.906/23	2.126/54	0.787/20	1.575/40
3900-5381	ISO40A	YES	M16x2.0	15°	0.748/19	0.551/14	0.276/7	0.669/17	0.906/23	2.126/54	0.787/20	1.575/40

Style 2, RETENTION KNOBS - CAT 50

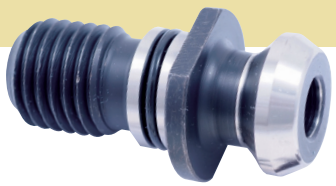
- Heat treated alloy steel hardened to HRC 52~56°.
- ANSI/AMSE B5.50-1994




Item#	Machine Taper	Thru Coolant	Thread T.P.I.	Angle A.	Knob Dia. D1 (Inch/mm)	Neck Dia. D2 (Inch/mm)	Hole Dia. D3 (Inch/mm)	Pilot Dia. D4 (Inch/mm)	Dia. D (Inch/mm)	OAL L (Inch/mm)	Shoulder L1 (Inch/mm)	Shoulder L2 (Inch/mm)
3900-5378	CAT50	YES	M24x3.0	15°	1.102/28	0.827/21	0.451/11.45	0.984/25	1.417/36	2.913/74	0.984/25	1.575/40

Style 3, RETENTION KNOBS - ISO 50A

- Heat treated alloy steel.
- All dimensions in accordance to ISO/DIS7388/2-1984A specifications.

Item#	Machine Taper	Thru Coolant	Thread T.P.I.	Angle A.	Knob Dia. D1 (Inch/mm)	Neck Dia. D2 (Inch/mm)	Hole Dia. D3 (Inch/mm)	Pilot Dia. D4 (Inch/mm)	Dia. D (Inch/mm)	OAL L (Inch/mm)	Shoulder L1 (Inch/mm)	Shoulder L2 (Inch/mm)
3900-5373	ISO50A	YES	M24x3.0	45°	1.102/28	0.827/21	0.451/11.45	0.984/25	1.417/36	2.913/74	0.984/25	1.575/40

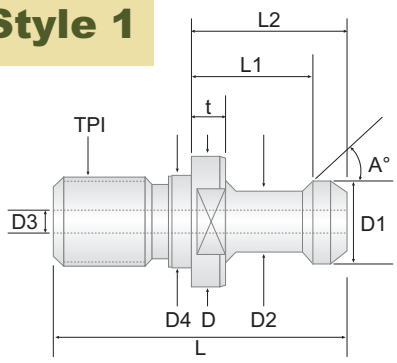
Style 3, RETENTION KNOBS - CAT 50

- Heat treated alloy steel hardened to HRC 52~56°.
- ANSI/AMSE B5.50-1994

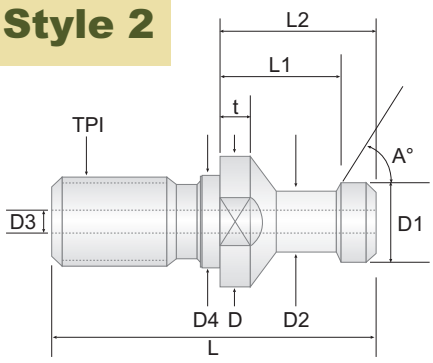



Item#	Machine Taper	Thru Coolant	Thread T.P.I.	Angle A.	Knob Dia. D1 (Inch/mm)	Neck Dia. D2 (Inch/mm)	Hole Dia. D3 (Inch/mm)	Pilot Dia. D4 (Inch/mm)	Dia. D (Inch/mm)	OAL L (Inch/mm)	Shoulder L1 (Inch/mm)	Shoulder L2 (Inch/mm)
3900-5383	CAT50	N/A	M24x3.0	15°	1.142/29	0.768/19.5	0.445/11.3	0.984/25	1.417/36	2.567/65.2	0.692/17.58	1.811/46

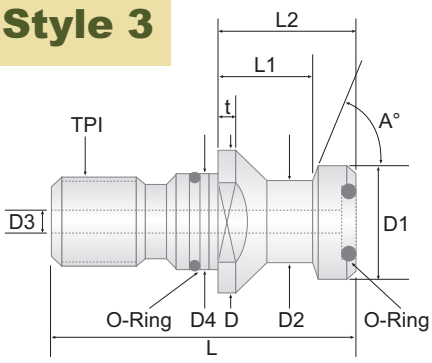
Style 1



Style 2



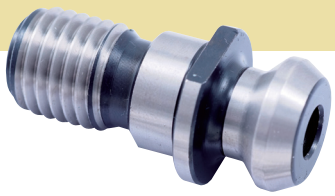
Style 3



RETENTION KNOBS

Style 4, RETENTION KNOBS - ISO 40B

- Heat treated alloy steel.
- All dimensions in accordance to ISO/DIS7388/2-1984A specifications.

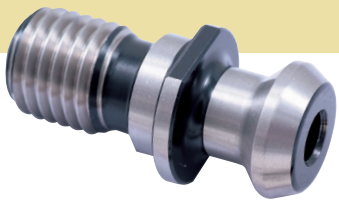




Item#	Machine Taper	Thru Coolant	Thread T.P.I.	Angle A.	Knob Dia. D1 (Inch/mm)	Neck Dia. D2 (Inch/mm)	Hole Dia. D3 (Inch/mm)	Pilot Dia. D4 (Inch/mm)	Dia. D (Inch/mm)	OAL L (Inch/mm)	Shoulder L1 (Inch/mm)	Shoulder L2 (Inch/mm)
3900-5372	ISO40B	YES	M16x2.0	45°	0.748/19	0.512/13	0.276/7	0.669/17	0.906/23	1.752/44.5	0.433/11	1.181/30

Style 4, RETENTION KNOBS - BT 40

- Heat treated alloy steel.
- All dimensions in accordance to ANSI specifications for CAT holders and MAS specifications for BT holders.





Item#	Machine Taper	Thru Coolant	Thread T.P.I.	Angle A.	Knob Dia. D1 (Inch/mm)	Neck Dia. D2 (Inch/mm)	Hole Dia. D3 (Inch/mm)	Pilot Dia. D4 (Inch/mm)	Dia. D (Inch/mm)	OAL L (Inch/mm)	Shoulder L1 (Inch/mm)	Shoulder L2 (Inch/mm)
3900-5497	BT40	YES	M16x2.0	45°	0.740/18.8	0.490/12.45	0.315/8	0.669/17	0.866/22	1.736/44.1	0.551/14	1.22/31

Style 4, RETENTION KNOBS - BT 50

- Heat treated alloy steel hardened to HRC 52~56°.
- All dimensions in accordance to ANSI specifications for CAT holders and MAS specifications for BT holders.



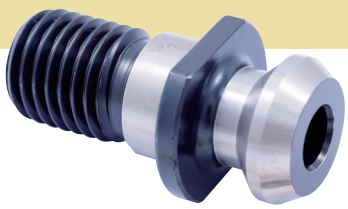


Item#	Machine Taper	Thru Coolant	Thread T.P.I.	Angle A.	Knob Dia. D1 (Inch/mm)	Neck Dia. D2 (Inch/mm)	Hole Dia. D3 (Inch/mm)	Pilot Dia. D4 (Inch/mm)	Dia. D (Inch/mm)	OAL L (Inch/mm)	Shoulder L1 (Inch/mm)	Shoulder L2 (Inch/mm)
3900-5499	BT50	YES	M24x3.0	45°	1.140/28.95	0.820/20.83	0.394/10	0.984/25	1.457/37	2.567/65.2	0.692/17.58	1.969/50

Style 4, RETENTION KNOBS - ISO 50B

- Heat treated alloy steel.
- All dimensions in accordance to ISO/DIS7388/2-1984A specifications.

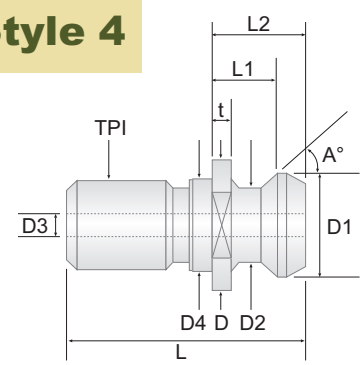
Limited Supply!



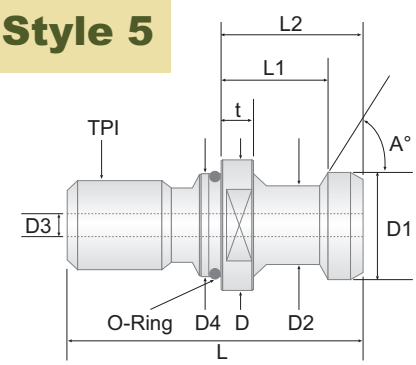


Item#	Machine Taper	Thru Coolant	Thread T.P.I.	Angle A.	Knob Dia. D1 (Inch/mm)	Neck Dia. D2 (Inch/mm)	Hole Dia. D3 (Inch/mm)	Pilot Dia. D4 (Inch/mm)	Dia. D (Inch/mm)	OAL L (Inch/mm)	Shoulder L1 (Inch/mm)	Shoulder L2 (Inch/mm)
3900-5374	ISO50B	YES	M24x3.0	45°	1.142/29	0.768/19.5	0.445/11.3	0.984/25	1.417/36	2.583/65.6	0.692/17.58	1.969/50

Style 4



Style 5



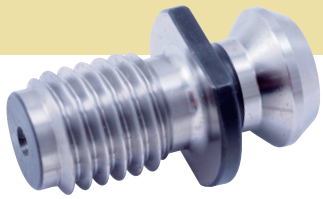
Retention Knob Safety!

Retention knobs are not intended to last forever. Your Safety Program must include Retention Knob Inspections. Knobs must be visually inspected for damage and checked for tightness every time the tool in the holder is changed. Every 2 or 3 years, depending on use, knobs should be removed from the holder and Magnetic Particle inspected. Any Retention Knobs showing indications of cracking must be discarded. If your machine is in a crash, or releases a tool prematurely., this is an indication that either the Retention Knob Fingers. Finger Guide, Belleville Washers in the Spindle, or the Retention Knob is damaged. The machine tool should not be used until inspected by Maintenance Personnel. In this case all the Retention Knobs in the machine should be checked for cracks or damage immediately.

Style 4, RETENTION KNOBS - CAT 40

- Heat treated alloy steel hardened to HRC 52~56°.
- ANSI/AMSE B5.50-1994

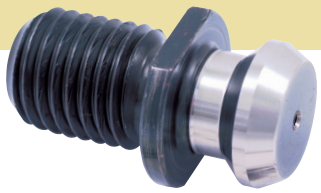




Item#	Machine Taper	Thru Coolant	Thread T.P.I.	Angle A.	Knob Dia. D1 (Inch/mm)	Neck Dia. D2 (Inch/mm)	Hole Dia. D3 (Inch/mm)	Pilot Dia. D4 (Inch/mm)	Dia. D (Inch/mm)	OAL L (Inch/mm)	Shoulder L1 (Inch/mm)	Shoulder L2 (Inch/mm)
3900-5512	CAT40	N/A	5/8~11	45°	0.740/18.79	0.488/12.4	N/A	N/A	0.886/22.5	1.535/39	0.433/11	1.26/32
3900-5513	CAT40	N/A	M16x2.0	45°	0.590/18.79	0.486/12.34	N/A	N/A	0.886/22.5	1.535/39	0.433/11	1.26/32
3900-5520	CAT40	YES	5/8~11	45°	0.740/18.79	0.400/12.34	0.276/7	N/A	0.886/22.5	1.496/38	0.433/11	1.24/31.5
3900-5521	CAT40	YES	M16x2.0	45°	0.740/18.79	0.486/12.34	0.276/7	N/A	0.937/23.8	1.496/38	0.433/11	1.24/31.5

Style 4, RETENTION KNOBS - CAT 50

- Heat treated alloy steel hardened to HRC 52~56°.
- ANSI/AMSE B5.50-1994





Item#	Machine Taper	Thru Coolant	Thread T.P.I.	Angle A.	Knob Dia. D1 (Inch/mm)	Neck Dia. D2 (Inch/mm)	Hole Dia. D3 (Inch/mm)	Pilot Dia. D4 (Inch/mm)	Dia. D (Inch/mm)	OAL L (Inch/mm)	Shoulder L1 (Inch/mm)	Shoulder L2 (Inch/mm)
3900-5519	CAT50	N/A	M24X3.0	45°	1.140/28.95	0.820/20.83	N/A	N/A	1.437/36.5	2.307/58.6	0.692/17.58	1.969/50
3900-5522	CAT50	YES	1~8	45°	1.140/28.95	0.820/20.83	0.451/11.45	N/A	1.437/36.5	2.307/58.6	0.692/17.58	1.969/50

Style 5, RETENTION KNOBS - ISO 40A

- Heat treated alloy steel.
- All dimensions in accordance to ISO/DIS7388/2-1984A specifications.





Item#	Machine Taper	Thru Coolant	Thread T.P.I.	Angle A.	Knob Dia. D1 (Inch/mm)	Neck Dia. D2 (Inch/mm)	Hole Dia. D3 (Inch/mm)	Pilot Dia. D4 (Inch/mm)	Dia. D (Inch/mm)	OAL L (Inch/mm)	Shoulder L1 (Inch/mm)	Shoulder L2 (Inch/mm)
3900-5371	ISO40A	YES	M16x2.0	45°	0.748/19	0.551/14	0.276/7	0.669/17	0.906/23	1.752/44.5	0.433/11	1.181/30

Style 5, RETENTION KNOBS - BT 50

- SNCM 21 alloy steel hardened to HRC 52~56°
- All dimensions in accordance to ANSI specifications for CAT holders and MAS specifications for BT holders.





Item#	Machine Taper	Thru Coolant	Thread T.P.I.	Angle A.	Knob Dia. D1 (Inch/mm)	Neck Dia. D2 (Inch/mm)	Hole Dia. D3 (Inch/mm)	Pilot Dia. D4 (Inch/mm)	Dia. D (Inch/mm)	OAL L (Inch/mm)	Shoulder L1 (Inch/mm)	Shoulder L2 (Inch/mm)
3900-5398	BT50	YES	M24x3.0	60°	0.906/23	0.669/17	0.236/6	0.984/25	1.496/38	3.346/85	1.378/35	3.937/100

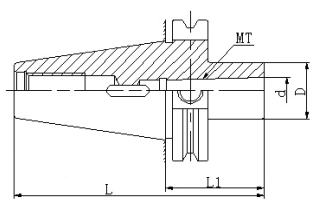
BT 30 & 40 TO MORSE TAPER ADAPTORS

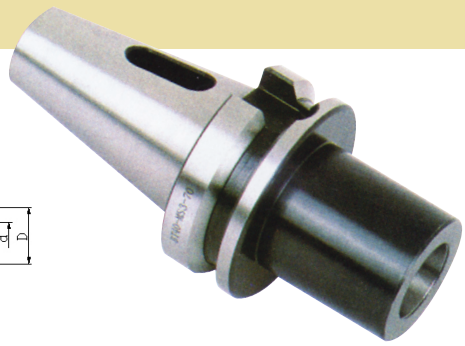
- For CNC machines having BT taper spindles.
- All critical surfaces are hardened and precision ground.
- Concentricity .0002".

Item#	BT Taper	MT Taper	Gage Depth L1 (Inch)	D (Inch)	L (Inch)
3900-8701	30	MT2	2.36	1.26	4.3
3900-8702*	30	MT3	3.15	1.58	5.0
3900-8705	40	MT2	1.97	1.26	4.5
3900-8708	40	MT3	2.76	1.58	5.3
3900-8710	40	MT4	3.54	1.89	6.1

* Limited Supply

Drawbar:
BT30 - M12X1.75
BT40 - M16 X 2.00





CAT 40 "V" FLANGE HOLDERS

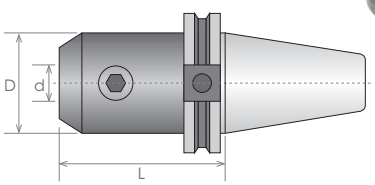
CAT 40 "V" FLANGE END MILL HOLDERS

- For CNC machines having CAT 40 taper spindles
- Hardened and precision ground
- "V" flange end mill adapter

Limited Supply!

Retention Knob Thread: **5/8" ~11**

T.I.R. ≤ 0.0002"





INCH Item#	Bore Dia. d	Gage Depth L	Nose Dia. D	Item#	Bore Dia. d	Gage Depth L	Nose Dia. D
3900-4103	1/4	1.38	0.88	**3900-4114**	5/8	2.50	1.50
3900-4105	5/16	1.38	1	**3900-4115**	5/8	3.94	1.62
3900-4106	5/16	2.50	1	**3900-4116**	3/4	1.75	1.75
3900-4107	3/8	1.38	1	**3900-4117**	3/4	2.50	1.75
3900-4108	3/8	2.50	1	**3900-4118**	3/4	3.94	1.75
3900-4109	7/16	2.50	1.25	**3900-4120**	7/8	3.94	2
3900-4110	1/2	1.75	1.75	**3900-4125**	1-1/4	3.94	2.62
3900-4111	1/2	2.50	1.25				

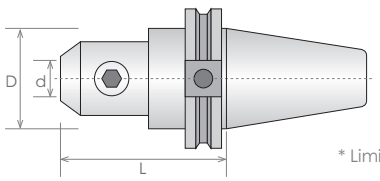
Pro-Series CAT 40 HIGH SPEED, BALANCED END MILL HOLDERS



- Made of high grade alloy steel
- Balanced to 15,000 RPM
- Tolerance: 0.0003" Max.
- Drawbar 5/8"-11

SUPERIOR FINISH & CRAFTSMANSHIP

T.I.R. ≤ 0.0003"/0.01mm



* Limited Supply

Item#	Bore Dia. d	Gage Length L	Nose Dia. D
3900-7721	3/16	2.5"	0.69"
3900-7724	1/4	3.0"	0.78"
3900-7727*	5/16	3.0"	0.88"
3900-7730	3/8	3.0"	1"
3900-7736	1/2	3.0"	1.25"
3900-7740	5/8	3.0"	1.5"
3900-7745	3/4	3.0"	1.75"
3900-7749*	7/8	3.5"	1.88"
3900-7751	1	4.0"	2"
3900-7756	1-1/4	4.6"	2.5"
3900-7760*	1-1/2	4.5"	2.5"

CAT 40 "V" FLANGE DRILL CHUCK ARBOR

- For CNC machines having CAT 40 taper spindles
- Hardened and precision ground
- Gage depth: 1.772"

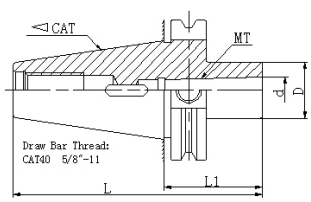
Retention Knob Thread: **5/8" ~11**



Item#	CAT Taper#	Jacobs No.
3900-4205	40	JT33

CAT 40 "V" FLANGE MORSE TAPER ADAPTERS

- For CNC machines having CAT 40 taper spindles
- Hardened and precision ground





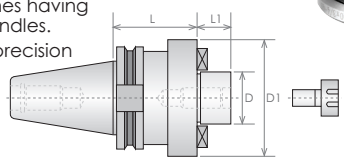
Retention Knob Thread: **5/8" ~11**

Item#	CAT Taper#	Morse Taper No.	Gage Depth L1	D	OAL L
3900-4305	40	MT2	2.375"	1.26"	5.2"
3900-4307	40	MT3	3.000"	1.57"	5.6"
3900-4309	40	MT4	2.562"	1.89"	6.6"

CAT 40 "V" FLANGE SHELL END MILL HOLDERS

Retention Knob Thread: **5/8" ~11**

- CAT 40 Shell End Mill Holder.
- For CNC machines having CAT 40 taper spindles.
- Hardened and precision ground.





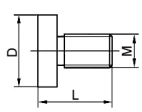
Item#	Dia. for Bore in Shell End Mill D	D1	Gage Length L	L1	Bore Thread
3900-4255	3/4"	1.5"	1.50"	0.69"	3/8"~24
3900-4257	1"	2.0"	2.00"	0.69"	1/2"~20
3900-4259	1-1/4"	2.5"	2.19"	0.69"	5/8"~18
3901-4259*	1-1/4"	2.75"	2.21"	0.69"	5/8"~18
3901-4261*	1-1/2"	3.81"	2.21"	0.94"	3/4"~16

* Limited Supply

SHELL END MILL HOLDER SCREWS

- Replacement screw for shell end mill holders.
- Low hardness allows outer diameter to be trimmed to fit.





Bore	Thread	D(mm)	L(mm)	Item#
1/2"	1/4"~28	16.7	21	**3900-0761**
3/4"	3/8"~24	22.2	27	**3900-0764**
1"	1/2"~20	30.2	33	**3900-0767**
1-1/4"	5/8"~18	38.1	39	**3900-0770**
1-1/2"	3/4"~16	47.6	45	**3900-0773**
2"	1"~14	63.1	52	**3900-0777**

Pro-Series HIGH ACCURACY ER SPRING COLLETS - AA GRADE 5 MICRON

- Made of high grade SUJ2 steel.
- Hardened and precision ground 44-48HRC.
- Exceeds Federal specifications.
- Inside diameter ground to reach mirrow finish increased grip force.
- Surface treated to reduce rust and improve hardness.
- Cyrogentic treatment to significiantely increase wear resistance.

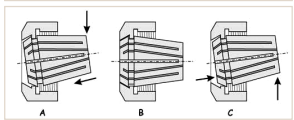
Series	Major Dia.	Overall Length
ER-16	.670"	1.052"
ER-20	.830"	1.230"
ER-32	1.300"	1.578"



AA GRADE TOLERANCE: 5 MICRON

Size/Range	ER-16 Item#	ER-20 Item#	ER-32 Item#
1/32" (.02~.04)	3901-5150		
1/16" (.04~.08)	3901-5151	3901-5180	3901-5239
3/32" (.08~.12)	3901-5152	3901-5181	3901-5240
1/8" (.12~.16)	3901-5153	3901-5182	3901-5241
3/16" (.16~.20)	3901-5154	3901-5183	3901-5242
7/32" (.20~.236)	3901-5155	3901-5184	3901-5243
1/4" (.236~.275)	3901-5156	3901-5185	3901-5244
5/16" (.275~.316)	3901-5157	3901-5186	3901-5245
11/32" (.316~.354)	3901-5158	3901-5187	3901-5246
3/8" (.354~.393)	3901-5159	3901-5188	3901-5247
13/32" (.393~.433)		3901-5189	3901-5248
7/16" (.433~.472)		3901-5190	3901-5249
1/2" (.472~.511)		3901-5191	3901-5250
17/32" (.511~.551)			3901-5251
9/16" (.551~.590)			3901-5252
5/8" (.590~.629)			3901-5253
21/32" (.629~.669)			3901-5254
11/16" (.669~.708)			3901-5255
23/32" (.708~.748)			3901-5256
3/4" (.748~.787)			3901-5257
25/32" (.748~.787)			3901-5258
13/16" (.787~.826)			3901-5259

Collet must be assembled into collet chuck nut before inserting into collet chuck !



RUNOUT ≤ 0.0002"
SUPERIOR FINISH

Pro-Series ER COLLET & RACK SETS - INCH - AA GRADE 5 MICRON

RUNOUT ≤ 0.0002"



INCH, ER-16
10 PC SET
3901-5360
1/32~3/8"



INCH, ER-20
12 PC SET
3901-5364
1/16~1/2"



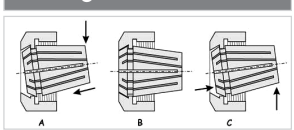
INCH, ER-32
18 PC SET
3901-5365
3/32~3/4"

Pro-Series ER SPRING COLLET & RACK SETS- METRIC - AA GRADE 5 MICRON

- Made of high grade alloy tool steel.
- Hardened and precision ground to 44-48HRC.
- Exceeds Federal specifications.
- Inside diameter ground to reach mirrow finish for increased grip force.
- Surface treated to reduce rust and improve hardness.

Limited Supply!

Collet must be assembled into collet chuck nut before inserting into collet chuck !



RUNOUT ≤ 0.005mm

Series	Major Dia.	Overall Length
ER-16	.670"	1.052"
ER-32	1.300"	1.578"



METRIC, ER-16
12 PC SET
3901-5375
1~10MM



METRIC, ER-32
18 PC SET
3901-5378
3~20MM

PRECISION ER SPRING COLLETS & SETS

- Made of high grade tool steel.
- Hardened and precision ground.
- Meets or exceeds Federal specifications.

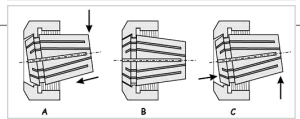
Series	Major Dia.	Overall Length
ER-11	.453"	.709"
ER-16	.670"	1.052"
ER-20	.830"	1.230"

Series	Major Dia.	Overall Length
ER-25	1.020"	1.390"
ER-32	1.300"	1.578"
ER-40	1.620"	1.810"



Size/Range	ER-11 Item#	ER-16 Item#	ER-20 Item#	ER-25 Item#	ER-32 Item#	ER-40 Item#
1/32" (.02~.04)	3900-5142	3900-5150				
1/16" (.04~.08)	3900-5143	3900-5151	3900-5180	3900-5210	3900-5239	
3/32" (.08~.12)	3900-5144	3900-5152	3900-5181	3900-5211	3900-5240	
1/8" (.12~.16)	3900-5145	3900-5153	3900-5182	3900-5212	3900-5241	3900-5270
3/16" (.16~.20)	3900-5146	3900-5154	3900-5183	3900-5213	3900-5242	3900-5271
7/32" (.20~.236)	3900-5147	3900-5155	3900-5184	3900-5214	3900-5243	3900-5272
1/4" (.236~.275)	3900-5148	3900-5156	3900-5185	3900-5215	3900-5244	3900-5273
5/16" (.275~.316)		3900-5157	3900-5186	3900-5216	3900-5245	3900-5274
11/32" (.316~.354)		3900-5158	3900-5187	3900-5217	3900-5246	3900-5275
3/8" (.354~.393)		3900-5159	3900-5188	3900-5218	3900-5247	3900-5276
13/32" (.393~.433)			3900-5189	3900-5219	3900-5248	3900-5277
7/16" (.433~.472)			3900-5190	3900-5220	3900-5249	3900-5278
1/2" (.472~.511)			3900-5191	3900-5221	3900-5250	3900-5279
17/32" (.511~.551)				3900-5222	3900-5251	3900-5280
9/16" (.551~.590)				3900-5223	3900-5252	3900-5281
5/8" (.590~.629)				3900-5224	3900-5253	3900-5282
21/32" (.629~.669)					3900-5254	3900-5283
11/16" (.669~.708)					3900-5255	3900-5284
23/32" (.708~.748)					3900-5256	3900-5293
3/4" (.748~.787)					3900-5257	3900-5285
25/32" (.748~.787)					3900-5265	3900-5286
13/16" (.787~.826)					3900-5263	3900-5287
27/32" (.826~.866)						3900-5288
7/8" (.866~.905)						3900-5289
15/16" (.905~.984)						3900-5290
31/32" (.944~.984)						3900-5291
1" (.984~1.02)						3900-5292

Collet must be assembled into collet chuck nut before inserting into collet chuck !



9 PC SET, ER-11	10 PC SET, ER-16	12 PC SET, ER-20	15 PC SET, ER-25	18 PC SET, ER-32	24 PC SET, ER-40
3900-5164	3900-5165	3900-5205	3900-5235	3900-5267	3900-5299
1/32~9/32" By 32nd	1/32~3/8", All Sizes Above	1/16~1/2", All Sizes Above	1/16~5/8", All Sizes Above	3/32~3/4" Only	1/8~1", All Sizes Above

ER-32 SPRING COLLET SETS - INCH

- Made of high grade tool steel.
- Hardened and precision ground.
- Meets or exceeds Federal specifications.



6 PC SET, ER-32	11 PC SET, ER-32	18 PC SET, ER-32
3900-5166	3900-5168*	3900-5267
1/8~3/4" By 8ths	1/8~3/4" By 16ths	3/32~3/4" Only

* Limited Supply

ER SPRING COLLET SETS - METRIC

- Made of high grade tool steel.
- Hardened and precision ground.
- Meets or exceeds Federal specifications.

12 PC SET, ER-32
3903-5260
3,4,5,6,8,10,12,14,15,16,18&20mm



10 PC SET, ER-25
3903-5230
3,4,5,6,8,10,12,14,15&16mm

HARLINGEN® HIGH PERFORMANCE ER COLLETS - METRIC

HARLINGEN® ultra precision ER collets are made of special bearing steel, Grade GCrlS, fully hardened and precisely ground by experienced craftsmen. Our powerful clamping ability and durability are ideal for boring, milling, drilling and tapping as well as grinding operations.

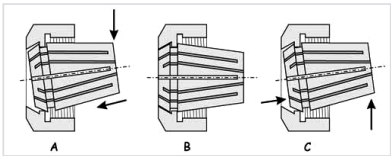
- Made of high-performance special bearing steel.
- Ideal for drilling, reaming and milling for high precision machining.
- Your choice for secure and rigid holding of drills of any size while retaining the highest concentricity within the range.
- 8 taper design enables maximum gripping power.
- All slits are spaced and ground evenly.
- Made of special bearing steel.

DIN6499B
RUNOUT ≤ 0.005mm

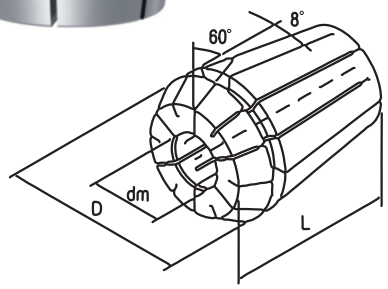
Ultra-Precision Made of Special Bearng Steel !



Collet must be assembled into collet chuck nut before inserting into collet chuck !



Series	Major Dia. D	Overall Length L
ER-16	17.0mm	27.5mm
ER-20	21.0mm	31.5mm
ER-25	26.0mm	34.0mm
ER-32	33.0mm	40.0mm

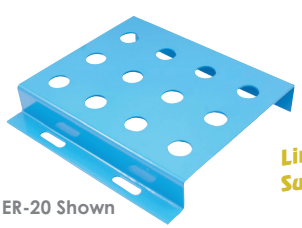


Size Range	ER-16 Item#	ER-20 Item#	ER-25 Item#	ER-32 Item#
3.0-2.0mm	9710-4011	9710-4019*	9710-4030*	9710-4044
4.0-3.0mm	9710-4012	9710-4020*	9710-4031*	9710-4045
5.0-4.0mm	9710-4013	9710-4021*	9710-4032*	9710-4046
6.0-5.0mm	9710-4014	9710-4022*	9710-4033*	9710-4047
7.0-6.0mm	9710-4015	9710-4023*	9710-4034*	9710-4048
8.0-7.0mm	9710-4016	9710-4024*	9710-4035*	9710-4049
9.0-8.0mm	9710-4017	9710-4025*	9710-4036*	9710-4050
10.0-9.0mm	9710-4018	9710-4026*	9710-4037*	9710-4051
11.0-10.0mm		9710-4027*	9710-4038*	9710-4052
12.0-11.0mm		9710-4028*	9710-4039*	9710-4053
13.0-12.0mm		9710-4029*	9710-4040*	9710-4054
14.0-13.0mm			9710-4041*	9710-4055
15.0-14.0mm			9710-4042*	9710-4056
16.0-15.0mm			9710-4043*	9710-4057
17.0-16.0mm				9710-4058
18.0-17.0mm				9710-4059
19.0-18.0mm				9710-4060
20.0-19.0mm				9710-4061

* Limited Supply

ER COLLET RACKS

- Holds ER collets.
- Heavy duty gage steel.
- Supplied with mounting hardware.



ER-20 Shown

Limited Supply!



ER-32 Shown

Item#	TYPE	HOLDS COLLETS	FOOTPRINT
3900-5171	ER-11	13	110x160mm
3900-5172	ER-16	8	110x180mm
3900-5174	ER-20	12	160x185mm
3900-5175	ER-25	15	180x300mm
3900-5176	ER-32	11	180x400mm
3900-5178	ER-40	15	250x360mm

ER COLLET RACKS

- Holds ER collets.
- Made from heavy duty gage steel.
- Supplied with mounting hardware.



ER-20 Shown



ER-32 Shown

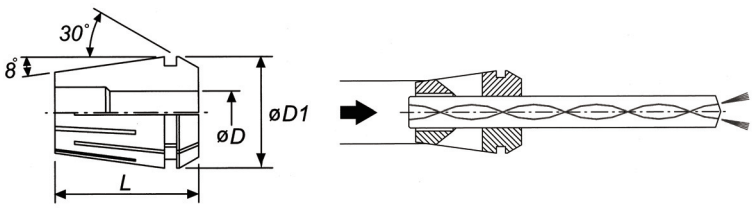
Item#	TYPE	HOLDS COLLETS	FOOTPRINT
3900-8671*	ER-11	12	70x100mm
3900-8672	ER-16	12	80x110mm
3900-8676	ER-20	12	100x140mm
3900-8680	ER-25	15	130x190mm
3900-8684	ER-32	20	200x260mm
3900-8688	ER-40	24	245x360mm

* Limited Supply

ER SPRING COLLETS - COOLANT THRU

- Designed for use with cylindrical shank tools (no flats). Cutting tool should be inserted the full length of the collet. If these conditions are not met, coolant leakage may result.
- Collets meet DIN 6499B.

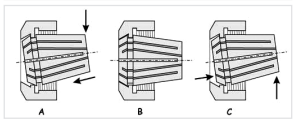
Series	Major Dia.	Overall Length
ER-16	.670"	1.052"
ER-20	.830"	1.230"
ER-25	1.020"	1.390"
ER-32	1.300"	1.578"
ER-40	1.620"	1.810"





Size/Range	ER-16 Item#	ER-20 Item#	ER-25 Item#	ER-32 Item#	ER-40 Item#
1/8" (.12~.16)	3900-5566	3900-5583*	3900-5753*		3900-5773
3/16" (.16~.20)	3900-5568	3900-5584*	3900-5754*	3900-5542	3900-5774
7/32" (.20~.236)	3900-5570	3900-5585*	3900-5755*	3900-5543	3900-5775
1/4" (.236~.275)	3900-5572	3900-5586*	3900-5756*	3900-5544	3900-5776
5/16" (.275~.316)	3900-5574	3900-5587*	3900-5757*	3900-5545	3900-5777
11/32" (.316~.354)	3900-5576	3900-5588*	3900-5758*	3900-5546	3900-5778
3/8" (.354~.393)	3900-5578	3900-5589*	3900-5759*	3900-5547	3900-5779
13/32" (.393~.433)		3900-5590*	3900-5760*	3900-5548	3900-5780
7/16" (.433~.472)		3900-5591*	3900-5761*	3900-5549	3900-5781
1/2" (.472~.511)		3900-5592*	3900-5762*	3900-5550	3900-5782
17/32" (.511~.551)			3900-5763*	3900-5551	3900-5783
9/16" (.551~.590)			3900-5764*	3900-5552	3900-5784
5/8" (.590~.629)			3900-5765*	3900-5553	3900-5785
21/32" (.629~.669)				3900-5554	3900-5786
11/16" (.669~.708)				3900-5555	3900-5787
23/32" (.708~.748)				3900-5556	3900-5788
3/4" (.748~.787)				3900-5557	3900-5789
25/32" (.748~.787)				3900-5558	3900-5790
13/16" (.787~.826)					3900-5791
27/32" (.826~.866)					3900-5792
7/8" (.866~.905)					3900-5793
15/16" (.905~.984)					3900-5794
31/32" (.944~.984)					3900-5795
1" (.984~1.020)					3900-5796

Collet must be assembled into collet chuck nut before inserting into collet chuck !



RUNOUT ≤ 0.0005"

* Limited Supply

COLLET RACK - 5C, ER32

- Holds 8 collets: 5C, ER32 or others.
- Supplied with mounting hardware.
- 4 mounting holes: 3.5" & 5.5" apart.
- Made from durable ABS material, heavy duty.

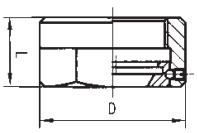


3900-1609

COLLETS ARE NOT INCLUDED

Pro-Series TYPE A 18,000 RPM ER CHUCK NUTS

- **Balanced to 18,000 RPM**
- Tolerance: .0003" Max.
- Material: 42 CrMo
- Hardness: HRC 50~52
- Thread Tolerance Class: 4H-Class



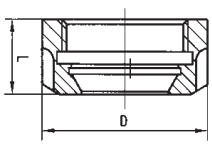


Item#	Fits	Thread	D (mm)	L (mm)
3900-0685	ER-11	M14 x 0.75	19	11.3
3900-0686	ER-16	M22 x 1.50	28	17.5

Pro-Series TYPE UM 18,000 RPM ER CHUCK NUTS

- **Balanced to 18,000 RPM**
- Tolerance: .0003" Max.
- Material: 42 CrMo
- Hardness: HRC 50~52
- Thread Tolerance Class: 4H-Class

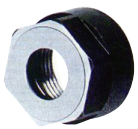




Item#	Fits	Thread	D (mm)	L (mm)
3900-0688	ER-16	M22 x 1.5	32	17
3900-0689	ER-20	M25 x 1.5	35	19
3900-0690	ER-25	M32 x 1.50	42	20
3900-0691	ER-32	M40 x 1.50	50	22.5
3900-0692	ER-40	M50 x1.50	63	25.5

TYPE A HEX ER CHUCK NUTS


Type A



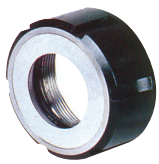
Type A (Bearing Type)

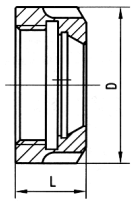
Fits	Thread	D (mm)	L (mm)	Type A Item#	Type A (Bearing) Item#
ER-11	M14 x 0.75	19	11.3	3900-0614*	3900-0654
ER-16	M22 x 1.50	28	17.5	3900-0616	3900-0656
ER-20	M25 x 1.50	35	19	3900-0620	3900-0660

* Limited Supply

TYPE KM & UM SPANNER ER CHUCK NUTS


Type UM

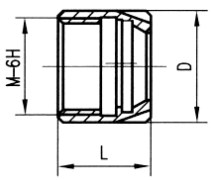

Type KM(Bearing Type)



Fits	Thread	D (mm)	L (mm)	Type UM Item#	Type KM Item#
ER-25	M32 x 1.50	42	20	3900-0625	3900-0645
ER-32	M40 x 1.50	50	22.5	3900-0632	3900-0647
ER-40	M50 x 1.50	63	25.5	3900-0640	3900-0649
ER-50	M64 x 2.00	78	35.5	3900-0642	3900-0651

ER CHUCK NUTS - Mini - Castle Nut
FOR MINI TYPE SHANKS ONLY

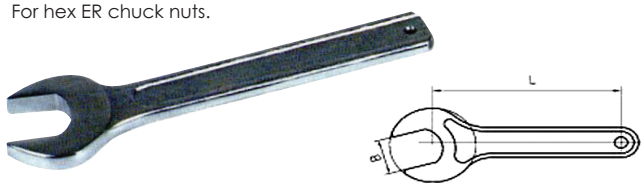




Fits	Item#	Thread	D(mm)	L (mm)
ER-8 Mini	3900-0671	M10 x 0.75	12	12
ER-11 Mini	3900-0673	M13 x 0.75	16	12
ER-16 Mini	3900-0675	M19 x 1.00	22	18
ER-20 Mini	3900-0677	M24 x 1.00	28	19
ER-25 Mini	3900-0679	M30 x 1.00	35	20

ER CHUCK HEX WRENCHES
FOR TYPE A NUT

- For hex ER chuck nuts.

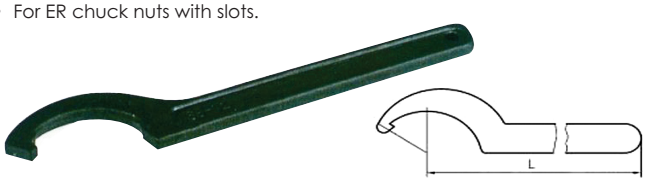


Item#	Fits	Open B (mm)	OAL L (mm)
3900-0591	ER-11	17	110
3900-0593	ER-16	25	110
3900-0592*	ER-20	30	160

* Limited Supply

ER CHUCK SPANNER HOOK WRENCHES
FOR TYPE KM & UM NUT

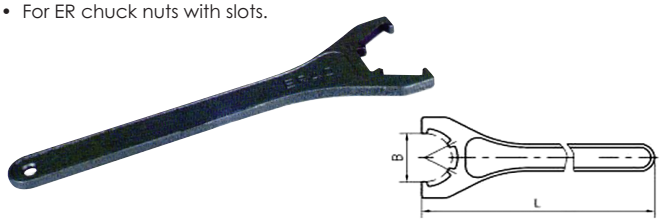
- For ER chuck nuts with slots.



Item#	Fits	Open (mm)	OAL L (mm)
3900-0594	ER-25	38-42	168
3900-0595	ER-32	45-52	190
3900-0596	ER-40	55-63	210
3900-0599	ER-50	78-85	240

ER CHUCK SLOTTED WRENCHES
FOR TYPE KM & UM NUT

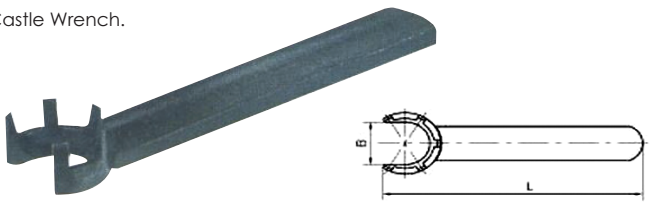
- For ER chuck nuts with slots.



Item#	Fits	Open B (mm)	OAL L (mm)
3900-0601	ER-25	37	210
3900-0602	ER-32	45	250
3900-0603	ER-40	58	290

ER CHUCK CASTLE WRENCHES - Mini
FOR MINI NUTS

- Castle Wrench.

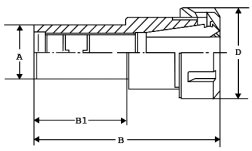


Item#	Fits	Open B (mm)	OAL L (mm)
3900-0606	ER-8 Mini	7.5	70
3900-0607	ER-11 Mini	11	90
3900-0608	ER-16 Mini	15	110
3900-0609	ER-20 Mini	19.5	120
3900-0610	ER-25 Mini	25	130

ER COLLET CHUCKS

STRAIGHT SHANK ER COLLET CHUCKS





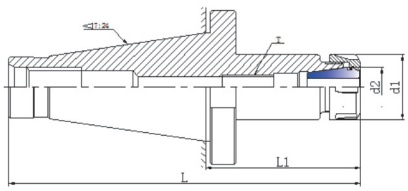
- Precision made with 0.0008" T.I.R.
- For heavy duty jobs.

Item#	Shank AxB1	Type	Capacity	Nut Style	(mm) B	(mm) D
3900-5106	5/8x2-1/2"	ER-11	.02~.275"	Hex	88.9	19
3900-5110	3/4x4"	ER-16	.02~.393"	Hex	141.6	28
3900-5111	3/4x6"	ER-16	.02~.393"	Hex	192.4	28
3900-5112	3/4x2-1/2"	ER-20	.04~.511"	Hex	104	34
3900-5116	3/4x4"	ER-20	.04~.511"	Hex	142.1	34
3900-5115	3/4x2"	ER-25	.04~.629"	Spanner	101.8	42
3900-5114	3/4x4"	ER-25	.04~.629"	Spanner	152.6	42
3900-5118	1x2"	ER-32	.08~.787"	Spanner	101.5	50
3900-5122	1-1/4x6"	ER-32	.08~.787"	Spanner	201.5	50

NMTB 30 & 40 SHANK ER COLLET CHUCKS



- Made of high grade tool steel.
- Hardened and precision ground.
- Meets or exceeds Federal specifications.

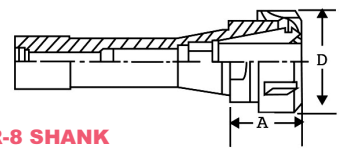


Item#	Shank	Type	Nut Style	L	(mm) L1	d1	Drawbar End
3900-5083	#30	ER-32	Spanner	128.4	60	50	1/2"~13
3900-5084	#30	ER-40	Spanner	138.4	70	63	1/2"~13
3900-5088	#40	ER-16	Hex	138.4	45	28	5/8"~11
3900-5090	#40	ER-32	Spanner	153.4	60	50	5/8"~11
3900-5091	#40	ER-40	Spanner	163.4	70	63	5/8"~11

R8 SHANK ER COLLET CHUCKS



- Made of high grade tool steel.
- Hardened and precision ground.
- Meets or exceeds Federal specifications.
- **Thread of Drawbar End: 7/16" -20**

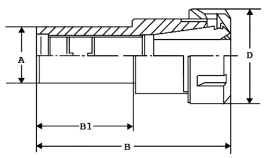


R-8 SHANK

Item#	Type	Nut Style	(Inch) A	D
3900-5061	ER-16	Hex	1.50	1.10
3900-5066	ER-32	Spanner	1.57	1.97
3900-5069	ER-40	Spanner	2.76	2.48

Pro-Series STRAIGHT SHANK BALANCED ER COLLET CHUCKS

- Made of high grade alloy steel.
- Premium hardened & all ground body for extended tool life.





MAX. RPM: 18,000
T.I.R. ≤ 0.0003"
SUPERIOR FINISH

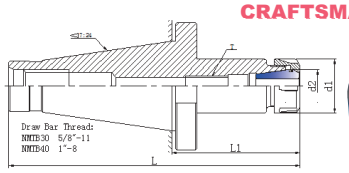
Item#	Type	Shank Ax B1	Nut Style	B	(mm) D
3900-2080	ER-11	5/8X2-1/2	Hex	3.457"	19
3900-2083	ER-16	3/4x2-1/2"	Hex	4.087"	28
3900-2085*	ER-16	3/4x6"	Hex	7.587"	28
3900-2086*	ER-20	3/4X2-1/2"	Hex	4.476"	34
3900-2088*	ER-20	3/4X4"	Hex	5.976"	34
3900-2089*	ER-20	3/4X6"	Hex	7.976"	34
3900-2091	ER-25	3/4X2"	Spanner	4.232"	42
3900-2092	ER-25	3/4X4"	Spanner	6.232"	42
3900-2094*	ER-32	1X2"	Spanner	4.252"	50
3900-2095*	ER-32	1X4"	Spanner	6.252"	50

* Limited Supply

Pro-Series NMTB 30 & 40 SHANK ER COLLET CHUCKS

- Made of high grade alloy steel
- Tolerance: .0003" Max.

SUPERIOR FINISH & CRAFTSMANSHIP

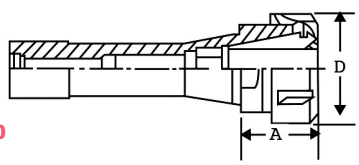




Item#	Shank	Type	Nut Style	L	(mm) L1	d1	Drawbar End
3901-5083	#30	ER-32	Spanner	128.4	60	50	1/2"~13
3901-5084	#30	ER-40	Spanner	138.4	70	63	1/2"~13
3901-5090	#40	ER-32	Spanner	153.4	60	50	5/8"~11
3901-5091	#40	ER-40	Spanner	163.4	70	63	5/8"~11

Pro-Series R8 Shank ER Collet Chucks

- Made of high grade alloy steel
- Premium hardened & all ground body for extended tool life.
- **Thread of Drawbar End: R8- 7/16" -20**



R-8 SHANK
MAX. RPM: 8,000
T.I.R. ≤ 0.0002"
SUPERIOR FINISH



Item#	Type	Nut Style	(Inch) A	D
3901-5063	ER-20	Hex	1.50	1.38
3901-5066	ER-32	Spanner	1.32	1.97
3901-5069	ER-40	Spanner	2.92	2.48

CAT 40 ER COLLET CHUCKS

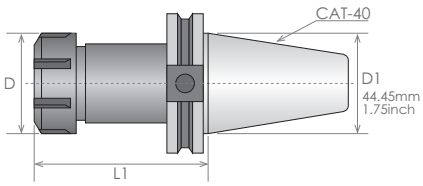
- For CNC machines having CAT 40 taper spindles.
- Hardened and precision ground.

CAT-40 (DRAWBAR END: 5/8" ~11)

T.I.R. ≤ 0.0002"

Limited Supply!





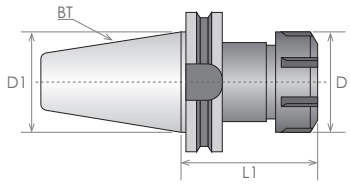
Item#	Type	Collet Range	Nut Style	Nut Dia. D	Gage Depth L1
3900-2528	ER-25	0.040~0.629"	Spanner	1.7"	2.75"
3900-2539	ER-25	0.040~0.629"	Spanner	1.7"	4.00"
3900-4369	ER-32	0.078~0.787"	Spanner	2.0"	3.20"
3900-4028	ER-40	0.120~1.020"	Spanner	2.5"	2.75"

BT 30 & 40 ER COLLET CHUCKS

- For CNC machines having BT taper spindles.
- Concentricity .0003".
- All critical surface are hardened and precision ground.

Draw Bar Thread: BT30 M12x1.75
BT40 M16x2.00





Limited Supply!

BT30

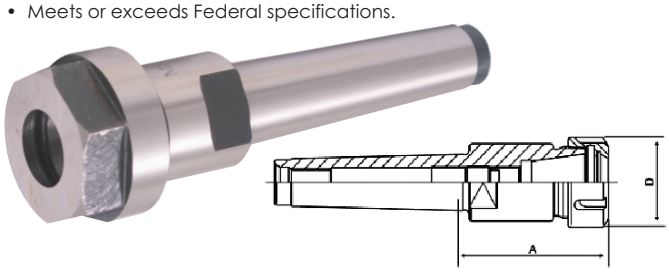
Item#	Type	Collet Range	Nut Style	Nut Dia. D	Gage Depth L1
3900-7554	ER-16	.019~.406"	Hex	1.1"	2.76"
3900-7562	ER-25	.040~.629"	Spanner	1.7"	2.76"
3900-7566	ER-32	.078~.787"	Spanner	2.0"	2.76"

BT40

Item#	Type	Collet Range	Nut Style	Nut Dia. D	Gage Depth L1
3900-7604	ER-16	.019~.406"	Hex	1.1"	2.48"
3900-8604	ER-16	.019~.406"	Hex	1.1"	2.76"
3900-7612	ER-25	.040~.629"	Spanner	1.7"	2.36"

MT SHANK ER COLLET CHUCKS

- Made of high grade tool steel.
- Hardened and precision ground.
- Meets or exceeds Federal specifications.



Item#	Shank	Type	Nut Style	Drawbar End	A (mm)	D (mm)
3900-5072	MT2	ER-20	Hex	3/8"~16	43	34
3900-5073	MT2	ER-25	Spanner	3/8"~16	47	42
3900-5077	MT3	ER-32	Spanner	3/8"~16	70	50
3900-5078	MT3	ER-40	Spanner	3/8"~16	80	63
3900-5079	MT4	ER-40	Spanner	5/8"~11	82	63

5C ER32 COLLET CHUCK

- 5C ER32 collet chuck.
- Made with DIN6499B (0.0005") Run-Out Tolerance.
- Holds all ER32 collets.
- Drawbar : 5C collet standard.
- Hardened and precision ground.
- Half-moon spanner wrench included.



3900-5099

Jacobs Taper ER COLLET SLEEVES & DRILL CHUCKS

- ER collet sleeves provide rigid & accurate holding of ID tooling. These collet sleeves feature ground shanks and tapers.
- Compatible with standard Jacobs taper spindles.
- Precision ground & hardened for accuracy and precision
- Can be used for coolant-thru applications
- Superior to keyed and keyless drill chucks in concentricity and holding power.



3903-6010 Shown

MAX. RPM: 8,000
T.I.R. ≤ 0.0002"
SUPERIOR FINISH

Item#	Type	Female JT Taper	Nut Style	SHANK DIA. D1	(mm) SHANK L1	OAL L2
3903-6010	ER-16	JT2	Hex	26	45	65
3903-6014	ER-20	JT2	Hex	26	45	65
3903-6018	ER-25	JT2	Spanner	32	46	67
3903-6050	ER-16	JT33	Hex	26	38	65
3903-6054	ER-20	JT33	Hex	26	38	65
3903-6058	ER-25	JT33	Spanner	32	40	72
3903-6062	ER-32	JT33	Spanner	40	48	71
3903-6082	ER-32	JT6	Spanner	40	50	73

Additional sizes shown on page 254.

ER COLLET CHUCK SETS

ER SPRING COLLET CHUCK SETS

- High precision collet chuck system suitable for all milling and drilling applications.
- Unique self-releasing system.
- Wide holding range.
- With fitted case.
- Accuracy to .0005".













ER-11

- **9PC SET INCLUDES**
  7-Collet:
  1/16, 3/32, 1/8, 3/16, 7/32, 1/4&5/16"
  1-Collet Chuck
  1-Wrench

ER-16

- **11PC SET INCLUDES**
  9-Collet
  1/16, 3/32, 1/8, 3/16, 7/32, 1/4, 5/16, 11/32 & 3/8"
  1-Collet Chuck
  1-Wrench

ER-25

- **10PC SET INCLUDES**
  8-Collet
  4, 5, 6, 8, 10, 12, 14 & 16mm
  1-Collet Chuck
  1-Wrench
- **12PC SET INCLUDES**
  10-Collet
  3/32, 1/8, 3/16, 1/4, 5/16, 3/8, 7/16, 1/2, 9/16 & 5/8"
  1-Collet Chuck
  1-Wrench
- **17PC SET INCLUDES**
  15-Collet
  1/16, 3/32, 1/8, 3/16, 7/32, 1/4, 5/16,11/32, 3/8,13/32, 7/16, 1/2, 17/32, 9/16 & 5/8"
  1-Collet Chuck
  1-Wrench

ER-32

- **8PC SET INCLUDES**
  6-Collet
  1/4, 5/16, 3/8, 1/2, 5/8 & 3/4"
  1-Collet Chuck
  1-Wrench
- **10PC SET INCLUDES**
  8-Collet
  4, 5, 6, 8, 10, 12, 16 & 20mm
  1-Collet Chuck
  1-Wrench
- **14PC SET INCLUDES**
  12-Collet
  1/16, 3/32, 1/8, 3/16, 1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8 & 13/16"
  1-Collet Chuck
  1-Wrench
- **20PC SET INCLUDES**
  18-Collet
  3/32, 1/8, 3/16, 7/32, 1/4, 5/16, 11/32, 3/8, 13/32, 7/16, 1/2, 17/32, 9/16, 5/8, 21/32,11/16, 23/32 & 3/4"
  1-Collet Chuck
  1-Wrench

ER-40

- **10PC SET INCLUDES**
  8-Collet
  1/8, 1/4, 3/8, 1/2, 5/8, 3/4, 7/8 & 1"
  1-Collet Chuck
  1-Wrench
- **17PC SET INCLUDES**
  15-Collet
  1/8, 3/16, 1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8, 11/16, 3/4, 13/16, 7/8, 15/16 & 1"
  1-Collet Chuck
  1-Wrench
- **25PC SET INCLUDES**
  23-Collet
  1/8, 3/16, 7/32, 1/4, 5/16, 11/32, 3/8, 13/32, 7/16, 1/2, 17/32, 9/16, 5/8, 21/32, 11/16, 3/4, 25/32, 13/16, 27/32, 7/8, 15/16, 31/32 & 1"
  1-Collet Chuck
  1-Wrench

Item#	Type	Collet Set	Size Range	Chuck Shank	Nut Style	Gage Length
3900-1172	ER-11	9	1/16~5/16"	1/2"	Mini	---
3900-1174*	ER-11	9	1/16~5/16"	3/4x2-1/2"	Hex	---
3900-1176	ER-11	9	1/16~5/16"	3/4x2-1/2"	Mini	---
3900-1178	ER-11	9	1/16~5/16"	3/4x6"	Hex	---
3900-1672	ER-16	11	1/16~3/8"	3/4"x4"	Hex	---
3900-0501	ER-16	11	1/16~3/8"	R8	Hex	---
3900-4014*	ER-16	11	1/16~3/8"	CAT40	Hex	2.75"
3900-0502	ER-25	12	3/32~5/8"	MT2	Spanner	1.85"
3901-5101	ER-25	10	4~16mm	BT40	Spanner	2.75"
3900-4023*	ER-25	17	1/16~5/8"	CAT40	Spanner	2.75"
3900-0507	ER-32	8	1/4~3/4"	R8	Spanner	---
3900-0508	ER-32	14	1/16~13/16"	R8	Spanner	---
3900-0503	ER-32	14	1/16~13/16"	MT3	Spanner	2.75"
3900-5300	ER-32	14	1/16~13/16"	#30	Spanner	2.36"
3900-0505	ER-32	14	1/16~13/16"	#40	Spanner	2.75"
3901-5108*	ER-32	10	4~20mm	BT40	Spanner	2.75"
3900-4029	ER-32	20	3/32~3/4"	CAT40	Spanner	3.20"
3900-0004	ER-40	10	1/8~1"	R8	Spanner	2.76"
3900-0005	ER-40	17	1/8~1"	R8	Spanner	2.76"
3900-0531	ER-40	17	1/8~1"	MT3	Spanner	3.15"
3900-0504	ER-40	17	1/8~1"	MT4	Spanner	2.75"
3900-5301	ER-40	17	1/8~1"	#30	Spanner	2.36"
3900-0538	ER-40	10	1/8~1"	#40	Spanner	2.36"
3900-0540	ER-40	17	1/8~1"	#40	Spanner	2.36"
3900-4042	ER-40	25	1/8~1"	CAT40	Spanner	2.75"

* Limited Supply

Pro-Series ER SPRING COLLET CHUCK SETS

- High precision collet chuck system suitable for all milling and drilling applications.
- Unique self-releasing system.
- Wide holding range.
- With fitted metal case.
- Accuracy to .0003".

SUPERIOR CRAFTSMANSHIP





Limited Supply!











ER-11

- **9PC SET INCLUDES**
  7-Collet: 1/16, 3/32, 1/8, 3/16, 7/32, 1/4&5/16"
  1-Collet Chuck
  1-Wrench

ER-16

- **11PC SET INCLUDES**
  9-Collet: 1/16, 3/32, 1/8, 3/16, 7/32, 1/4, 5/16, 11/32 & 3/8"
  1-Collet Chuck
  1-Wrench

ER-32

- **20PC SET INCLUDES**
  18-Collet
  3/32, 1/8, 3/16, 7/32, 1/4, 5/16,11/32, 3/8, 13/32, 7/16, 1/2, 17/32, 9/16, 5/8, 21/32, 11/16, 23/32 & 3/4"
  1-Collet Chuck
  1-Wrench

- **14PC SET INCLUDES**
  12-Collet
  1/16, 3/32, 1/8, 3/16, 1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8 & 13/16"
  1-Collet Chuck
  1-Spanner Wrench

ER-25

- **12PC SET INCLUDES**
  10-Collet
  3/32, 1/8, 3/16, 1/4, 5/16, 3/8, 7/16, 1/2, 9/16 & 5/8"
  1-Collet Chuck
  1-Wrench

- **17PC SET INCLUDES**
  15-Collet
  1/16, 3/32, 1/8, 3/16, 7/32, 1/4, 5/16,11/32, 3/8,13/32, 7/16, 1/2, 17/32, 9/16 & 5/8"
  1-Collet Chuck
  1-Wrench

ER-40

- **17PC SET INCLUDES**
  15-Collet
  1/8, 3/16, 1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8, 11/16, 3/4, 13/16, 7/8, 15/16 & 1"
  1-Collet Chuck
  1-Wrench

- **25PC SET INCLUDES**
  23-Collet
  1/8, 3/16, 7/32, 1/4, 5/16, 11/32, 3/8, 13/32, 7/16, 1/2, 17/32, 9/16, 5/8, 21/32, 11/16, 3/4, 25/32, 13/16, 27/32, 7/8, 15/16, 31/32 & 1"
  1-Collet Chuck
  1-Wrench

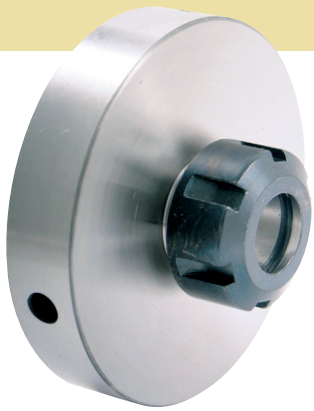
Item#	Type	Collet Set	Size Range	Chuck Shank	Nut Style	Gage Length
3900-1173	ER-11	9	1/16~5/16"	1/2"	Hex	---
3900-1175	ER-11	9	1/16~5/16"	3/4x8"	Hex	---
3900-4016	ER-16	11	1/16~3/8"	CAT40	Hex	2.50"
3900-1675	ER-16	11	1/16~3/8"	3/4x6"	Hex	---
3900-4025	ER-25	12	3/32~5/8"	CAT40	Spanner	2.75"
3900-2575	ER-25	17	1/16~5/8"	3/4x4"	Spanner	---
3900-4032	ER-32	20	3/32~3/4"	CAT40	Spanner	3.20"
3900-7532	ER-32	20	3/32~3/4"	3/4x4"	Spanner	---
3900-4040	ER-40	25	1/8~1"	CAT40	Spanner	2.75"

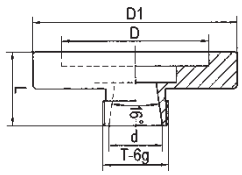
ER COLLET FIXTURES & BLOCKS

ER COLLET FIXTURES - Plain Back

- Plain back design allows custom mounting to your choice of backplate or fixture.
- Durable steel construction provides long service life and reliable performance.
- Precision-ground for accurate collet holding and improved concentricity.
- Concentricity: 0.00016"/0.004mm



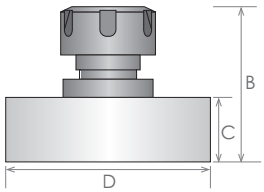


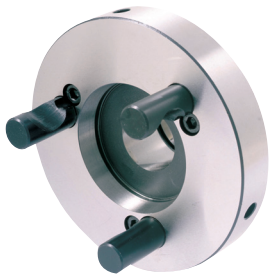


Item#	Type	D1	(mm) D	L	No. of Bolt Hole	Bolt Hole Size
3901-5016	ER-16	45	22	25	4	5
3901-5032	ER-32	80	55	42	3	M6
3901-5033	ER-32	100	72	42	3	M8
3901-5034	ER-32	130	100	42	3	M8x1.25
3901-5036	ER-40	100	72	42	3	M8
3901-5038	ER-40	132	100	42	3	M10

ER-40 COLLET CHUCK FIXTURE - Direct Mount

- Direct-mount design fits D1 spindle nose lathes for quick installation.
- Precision-ground for excellent concentricity and repeatable accuracy.
- Securely holds ER-40 collets for a wide range of workpiece sizes.
- Heavy-duty construction delivers stable, vibration-resistant performance.
- Concentricity 0.0002"



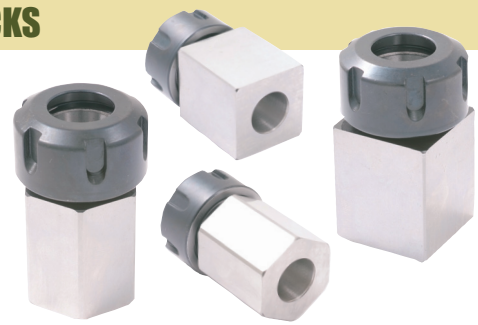




Item#	Type	D	Mount	B	C
3901-5041	ER-40	125mm	D1-3	54.9mm	23mm
3901-5042	ER-40	125mm	D1-4	54.9mm	23mm

HEX / SQUARE ER COLLET BLOCKS

- Block Dimension: 1-3/4 x 1-3/4 x Height.
- For fast set-ups on CNC machines.
- For parallel, square or hex shapes as well as for cross hole drilling at 60°, 90° or 120°.
- Made of tool steel hardened and ground to .0005" flatness, squareness and parallelism.
- Through hole allows for long parts to be machined.
- May be used standing upright.
- Uses standard ER collets.
- ER nut included.

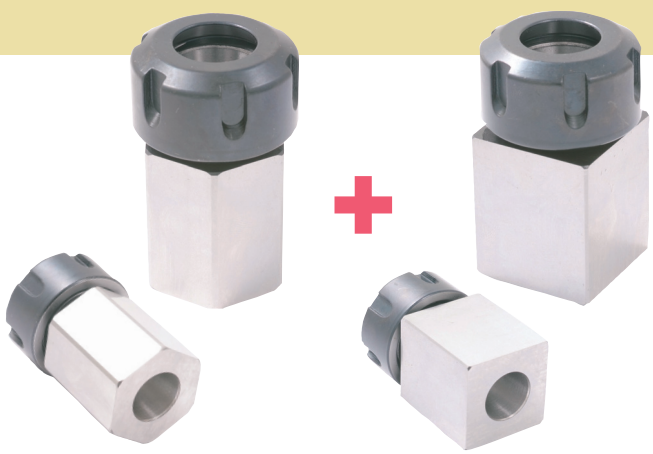


Item#	Shape	ER Collet	Block Height
3900-5123	Square	ER-25	2.7
3900-5124	Square	ER-32	2.8
3900-5125	Square	ER-40	3.2
3900-5127	Hex	ER-25	2.7
3900-5128	Hex	ER-32	2.8
3900-5129	Hex	ER-40	3.2

HEX & SQUARE ER COLLET BLOCK SETS - 2PC SET

HHIP Hex/Square ER Collet blocks are versatile, precision-machined tool holding devices used in CNC machining and other milling applications expediting set-up time.

- **Material and Precision** - Constructed from hardened and ground tool steel with exceptional precision (within .0005" flatness, squareness, and parallelism), these blocks provide a stable and accurate work holding surface.
- **Versatility in Shapes and Angles** - These blocks are adaptable for holding parallel, square, or hexagonal workpieces. They are also useful for cross hole drilling at angles of 60, 90, or 120 degrees. This versatility allows for a wide range of machining tasks.
- **Orientation Options** - The block may be used horizontally or standing upright, which can be advantageous for specific machining operations and setups.
- **Compatibility with Standard ER Collets** - Square/Hex ER Collet blocks are engineered to work seamlessly with standard ER collets. This ensures that a variety of tool sizes can be accommodated, providing flexibility in tool selection.
- **Through Hole for Long Parts** - The 11/16" through hole is beneficial for machining long workpieces. This feature allows the tool to pass through the block, facilitating operations on extended parts.
- **ER Nut Included** - The ER nut is included with the block, which is essential for securing the ER collet in place, ensuring a firm grip on the cutting tool.
- **Dimensions** - 1-3/4 x 1-3/4" x Height.



Includes: One hex and one square ER collet blocks.

Item#	ER Collet	Blocks Shape	Block Height
9999-0035	ER-25	Hex & Square	2.7
9999-0036	ER-32	Hex & Square	2.8
9999-0037	ER-40	Hex & Square	3.2

ER32 COLLET CHUCK ADAPTER - For 3"/4" HORIZONTAL/VERTICAL ROTARY TABLE

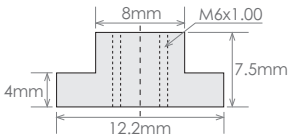
- **ER32 Collet Chuck Adapter** – Designed to securely mount ER32 collets to 3/4" horizontal or vertical rotary tables (3 or 4") for precision workholding.
- **Versatile Machining Applications** – Ideal for gear cutting, indexing, milling, drilling, and repetitive production work requiring consistent clamping accuracy.
- **80mm Diameter with 4 Mounting Slots** – Precision-machined 80mm adapter features four slots for secure bolting directly to the rotary table surface.
- **Complete Mounting Hardware Included** – Supplied with mounting bolts for fast installation and reliable operation.
- **High Accuracy & Repeatability** – Ensures concentric clamping and stable workpiece positioning when transferring parts between machines.

3906-2218

80MM DIAMETER ADAPTER WITH 4-SLOTS







CLAMPING T-NUT DIMENSIONS



4 PC CLAMPING KIT INCLUDED

Jacobs Taper ER COLLET SLEEVES & DRILL CHUCKS

- ER collet sleeves provide rigid & accurate holding of ID tooling. These collet sleeves feature ground shanks and tapers.
- Compatible with standard Jacobs taper spindles.
- Precision ground & hardened for accuracy and precision
- Can be used for coolant-thru applications
- Superior to keyed and keyless drill chucks in concentricity and holding power.

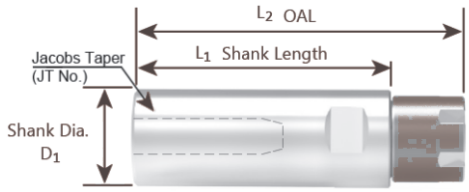


3903-6062 Shown



3903-6010 Shown

MAX. RPM: 8,000
T.I.R. ≤ 0.0002"
SUPERIOR FINISH



Item#	Type	Female JT Taper	Nut Style	SHANK DIA. D1	(mm) SHANK L1	OAL L2
3903-6010	ER-16	JT2	Hex	26	45	65
3903-6014	ER-20	JT2	Hex	26	45	65
3903-6018	ER-25	JT2	Spanner	32	46	67
3903-6022	ER-32	JT2	Spanner	40	40	72
3903-6028*	ER-16	JT3	Hex	32	45	72
3903-6032	ER-20	JT3	Hex	32	45	72
3903-6036	ER-25	JT3	Spanner	32	56	77
3903-6040	ER-32	JT3	Spanner	40	45	77
3903-6050	ER-16	JT33	Hex	26	38	65
3903-6054	ER-20	JT33	Hex	26	38	65
3903-6058	ER-25	JT33	Spanner	32	40	72
3903-6062	ER-32	JT33	Spanner	40	48	71
3903-6070*	ER-16	JT6	Hex	25	38	65
3903-6074	ER-20	JT6	Hex	26	38	65
3903-6078	ER-25	JT6	Spanner	32	38	72
3903-6082	ER-32	JT6	Spanner	40	50	73

* Limited Supply

SK10 & SK16 SK SLIM CHUCK COLLETS - LYNDEX STYLE

- Vacuum quenching heat treatment to hardness HRC46~50.
- Collet front cone convex platform design reduces the entry of dust and chips increasing longer service life.
- The SK slim collet system features an 8° taper angle versus the16° taper for ER type collets.
- The SK collet results in greater gripping forces.
- Note! This results in less range capacity for each collet.
- SK collets sit deeper in the tool holder compared to TG and ER type collet systems. This extra length results in higher accuracy and rigidity.

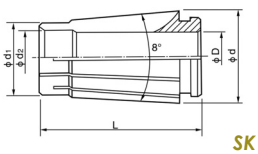
Collet Dimensions

Series	d	(mm) d1	d2	L
SK10	15.45	12.0	9.50	30.5
SK16	24.52	18.8	15.5	45.0

RUNOUT ≤ 0.0002"



3901-5401 Shown





3901-5456 Shown

SK10

Item#	Size D	Collapse Range
3901-5401	1/8	0.115~ 0.125"
3901-5404	3/16	0.168 ~0.188"
3901-5407	1/4	0.230~0.250"
3901-5410*	5/16	0.293~0.313"
3901-5414	3/8	0.355~0.375"

* Limited Supply

SK16

Item#	Size D	Collapse Range
3901-5431	1/8	0.112~ 0.125"
3901-5435	3/16	0.168 ~0.188"
3901-5439	1/4	0.230~0.250"
3901-5444	5-16	0.293~0.313"
3901-5448	3/8	0.355~0.375"
3901-5452	7/16	0.419~0.438"
3901-5456	1/2	0.480~0.500"
3901-5460*	9/16	0.543~0.562
3901-5464	5/8	0.605~0.625"

KEYLESS DRILL CHUCKS

SENSITIVE HAND DRILL FEED & SET

- 1/2" diameter hardened and precision ground straight shank x 0JT.
- Grasp free turning ring and feed drill.
- Spring loaded 3/4" travel fits any drill, mill, lathe or jig borer.
- Reduces small drill breakage.
- Suitable for drills (0.008-5/32")
- TIR: 0.002"

Drill Feed & Drill Chuck Combo
3700-5555
Include: Drill Feed JT0 (3700-0001)
1/8" Keyless Drill Chuck (3700-0002)





Drill Feed, JT0
3700-0001

1/8" JT0 KEYLESS DRILL CHUCK

- Precision made with highest T.I.R.
- Ultra smooth bearings.



0~1/8"/0~3MM
3700-0002

KEYLESS DRILL CHUCK & R8 ARBOR SETS

- **Direct R8 Spindle Mount:** Matched set includes keyless chuck and precision-ground R8 arbor with 7/16"-20 drawbar thread.
- **Self-Tightening Grip:** Automatically increases gripping force as torque increases to eliminate bit slippage—no chuck key required.
- **Hardened & Precision Ground:** Hardened steel construction ensures high accuracy, low runout, and extended service life.
- **Versatile Options:** Available in Ultra Precision and Heavy-Duty grades for 1/2" and 5/8" capacities.



9999-0100 Shown



ULTRA PRECISION

Item#	Capacity	Taper Mount	Arbor Included
9999-0100	1/32-1/2"	JT33	JT33-R8
9999-0102	1/32-5/8"	JT6	JT6-R8

HEAVY DUTY

Item#	Capacity	Taper Mount	Arbor Included
9999-0106	1/32-1/2"	JT33	JT33-R8
9999-0108	1/32-5/8"	JT6	JT6-R8

SENSITIVE HAND DRILL FEED 1/8" KEYLESS CHUCK & #61-80 DRILL BIT SET

NEW

- J0 Taper 1/2" Shank Sensitive Hand Drill Feed
- 1/2" diameter hardened and precision ground straight shank X 0JT.
- Grasp free turning ring and feed drill.
- Spring loaded 3/4" travel fits any drill, mill, lathe or jig borer.
- Reduces small drill breakage.
- Suitable for drills from 0.008-5/32".
- TIR is 0.002"



9999-0066



HEAVY DUTY KEYLESS DRILL CHUCKS

- Precision made with highest T.I.R.
- Self-tightening design.
- No chuck key required.
- Hardened tool steel to ensure accuracy and extended chuck life.
- Can be used on a wide variety of machinery.
- Solid steel body.



TAPER MOUNTED

1/32"~1/2", JT33
3700-0210

Item#	Capacity	Taper Mount
3700-0207*	0~3/8"	JT33
3700-0210	1/32~1/2"	JT33
3700-0215	1/8~5/8"	JT6

* Limited Supply

ULTRA PRECISION KEYLESS DRILL CHUCKS

- Super heavy duty ultra precision.
- Closer tolerances assure excellent runout accuracy.
- Normal gripping power when hand tightened and double the torque when used with spanner wrench.
- Especially suitable for CNC machines.

TAPER MOUNTED



1/32"~1/2", JT33
3700-0255

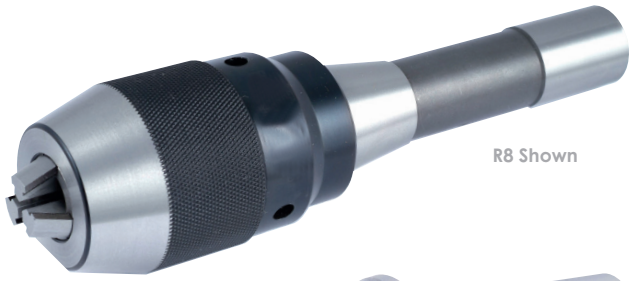
HHIP PRO-SERIES

Item#	Capacity (Inch)	Accuracy (Inch)	Taper Mount	Body Dia.
3700-0250*	1/32~3/8	.0024	JT2	1.65"
3700-0251*	1/32~3/8	.0024	JT33	1.65"
3700-0255	1/32~1/2	.0024	JT33	1.89"
3700-0259	1/32~5/8	.0028	JT6	2.09"

* Limited Supply

PRECISION KEYLESS DRILL CHUCKS WITH INTEGRAL SHANKS

- Integral shank design provides maximum rigidity and improved accuracy.
- One-piece construction eliminates chuck slippage on the arbor.
- Compact design reduces overall tool length for better accessibility.
- Precision keyless operation allows fast, secure bit changes.



R8 Shown



NMTB Shown

T.I.R. ≤ 0.0025"



MT Shown

Item#	Clamping Capacity	Shank
3701-1501	0~1/2"	R8
3701-1626	1/64~5/8"	R8
3701-2499	1/64~1/2"	MT3
3701-2624*	1/64~5/8"	MT3
3701-3503*	1/64~1/2"	BT40
3701-3001	0~1/2"	NMTB #30
3701-3011	0~1/2"	NMTB #40
3701-3015	1/64~5/8"	NMTB #40

* Limited Supply

VERTEX® ULTRA PRECISION KEYLESS DRILL CHUCKS WITH INTEGRAL SHANKS

- Ultra-precision design with T.I.R. ≤ 0.002" for accurate drilling.
- Self-tightening keyless chuck provides a secure grip under load.
- One-piece integral shank improves rigidity and minimizes runout.
- Made in Taiwan for trusted quality and long-lasting performance.

MADE IN TAIWAN

Max. T.I.R. ≤ 0.002"

Item#	Clamping Capacity	Shank
3701-0500	1/64~1/2"	CAT40
3701-0625	1/8~5/8"	CAT40
3701-1050	1/64~1/2"	BT30
3701-1054	0~1/2"	BT40
3701-1062	1/8~5/8"	BT40
3701-1500	0~1/2"	R8
3701-1625	1/8~5/8"	R8
3701-2500	0~1/2"	MT3
3701-2501	0~1/2"	MT4
3701-2625	1/8~5/8"	MT3
3701-2626	1/8~5/8"	MT4
3701-3500	0~1/2"	#40NMTB
3701-3625	1/8~5/8"	#40NMTB



CAT40 Shown



MT Shown

WRENCHES FOR KEYLESS DRILL CHUCKS

- Designed for easy tightening and loosening of keyless drill chucks.
- Durable steel construction for long service life.
- Fits multiple chuck sizes for added versatility.
- Simple, reliable tool for routine chuck maintenance.



Hook wrench for keyless drill chucks

Item#	Fit Chuck Size	Taper Mount
3700-0291*	0~5/16"	JT1
3700-0292	0~3/8"	JT2, JT33
3700-0293	0~1/2"	JT33, JT6
3700-0294	1/8~5/8"	JT3, JT6

* Limited Supply

KEYLESS DRILL CHUCKS

Pro-Series KEYLESS DRILL CHUCKS WITH INTEGRAL SHANKS

- Pro-series drill chucks are engineered precisely and offer outstanding performance with superior craftsmanship, ensuring accurate performance at an unbeatable value.
- **High Precision TIR ⩽ 0.002":** Achieve precise drilling with confidence.
- **Superior Craftsmanship:** Crafted with care for smooth operation, longevity, and reliability.
- **Integral Shank Design:** Enhanced stability and performance for your most demanding tasks.
- **3 Jaw clamping:** the 3 jaws can be easily opened and closed without any tools or keys.
- The integral shank is more compact than a combination drill chuck and arbor eliminating the chuck slipping on its arbor.



T.I.R. ⩽ 0.002"

Item#	Clamping Capacity	Shank	Drawbar End
3701-4671	0~1/2"	R8	7/16"-20
3701-4672	1/64~5/8"	R8	7/16"-20
3701-4675	1/64~1/2"	MT3	Tang
3701-4676	1/64~5/8"	MT3	Tang
3701-4680	1/64~1/2"	MT4	Tang
3701-4681	1/64~5/8"	MT4	Tang
3701-4684	1/64~1/2"	BT30	M12x1.75
3701-4688	0~1/2"	NMTB #40	5/8"-11
3701-4689	1/64~5/8"	NMTB #40	5/8"-11
3701-4692	0~1/2"	CAT40	5/8"-11
3701-4693	1/64~5/8"	CAT40	5/8"-11

SUPERIOR FINISH & CRAFTMANSHIP



R8 (3701-4671)Shown | MT (3701-4675)Shown | BT30(3701-4684) Shown | NMTB (3701-4688)Shown | CAT (3701-4692)Shown



Pro-Series ULTRA PRECISION DRILL CHUCKS WITH INTEGRAL SHANKS - HEX LOCKING KEY



MT3 Shown

NMTB #40 Shown

HEXAGONAL KEY LOCK SYSTEM



MT4 Shown

BT30 Shown



- **Integral Shank Design** – Built-in shank eliminates the need for a separate arbor, reducing runout, improving rigidity, and preventing chuck-to-arbor slippage.
- **Ultra-Low Runout Accuracy** – Maximum total indicated runout of ≤ 0.0012"/ 0.03 mm for precise drilling and improved hole quality.
- **High-Grip Jaw Technology** – Precision-ground jaws provide superior gripping torque, holding drills securely even in demanding applications.
- **Hexagonal Lock System Included** – Positive locking mechanism ensures consistent clamping force and reliable tool retention. Key included.
- **Rigid & Compact Construction** – Integrated design shortens overall length, improving stability and performance in tight or high-precision setups.
- **Ideal for Precision Drilling** – Designed for CNC machines, drill presses, and milling machines requiring repeatable accuracy.

Max. T.I.R. ⩽ 0.0012"/0.03mm

Item#	Range	Shank
3701-4605	0-1/2"/1-13mm	MT3
3701-4607	0-5/8"/1-16mm	MT3
3701-4610	0-5/8"/1-16mm	MT4
3701-4617	0-1/2"/1-13mm	NMTB #40
3701-4619	0-5/8"/1-16mm	NMTB #40
3701-4645	0-1/2"/1-13mm	BT30
3701-4652*	0-5/8"/1-16mm	BT40

* Limited Supply

BUDGET DRILL CHUCKS - With Key

- Accuracy and strong gripping force.
- For portable, bench or floor type drill press.
- Supplied with chuck key.

TAPER MOUNTED

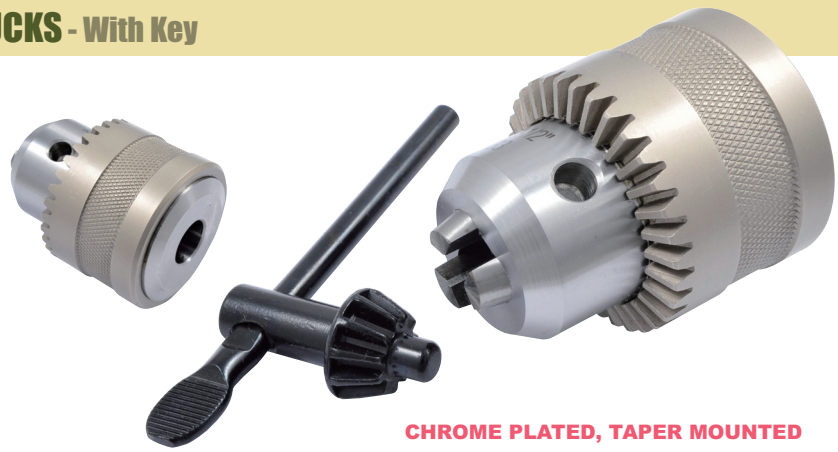
1/2", JT33
3700-0102



Item#	Capacity	Taper Mount
3700-0100	1/32~3/8"	JT2
3700-0102	1/32~1/2"	JT33
3700-0103	1/32~1/2"	JT6
3700-0105	1/8~5/8"	JT3
3700-0106	1/32~5/8"	JT33
3700-0108	3/16~3/4"	JT3

PRECISION CHROME-PLATED DRILL CHUCKS - With Key

- Chrome plating provides a combination of protection, durability, ease of maintenance and aesthetics, enhancing the performance and longevity of the drill chuck.
- The special treatment of surface nickel plating improves the product's performance.
- The nut and jaws are heat treated.
- The taper is precision ground for improved precision.
- Accuracy: 0.0059".
- Supplied with chuck key.



CHROME PLATED, TAPER MOUNTED

Item#	Capacity	Taper Mount
3700-1102	1/32~1/2"	JT33
3700-1103	1/32~1/2"	JT6
3700-1105	1/32~5/8"	JT3
3700-1106	1/8"~5/8"	JT33

Pro-Series DRILL CHUCKS - With Key

- Precision made with the highest T.I.R.
- For heavy duty jobs.
- Supplied with chuck key.

RUNOUT: 0.005"
TAPER MOUNTED



Item#	Capacity	Taper Mount	Use Key
3700-0081	1/32~3/8"	JT2	3070-0045
3700-0082	1/32~1/2"	JT3	3070-0049
3700-0083	1/32~1/2"	JT33	3070-0049
3700-0084	1/32~1/2"	JT6	3070-0049
3700-0085	1/8~5/8"	JT3	3070-0049
3700-0086	1/8~5/8"	JT33	3070-0049
3700-0087	1/8~5/8"	JT6	3070-0049
3700-0089	3/16~3/4"	JT3	------

VERTEX® PRECISION DRILL CHUCKS - With Key

- Super precision durable with strong body.
- The nut and jaws are AISI-52100 (bearing steel) and heat treated.
- The taper is precision ground for improved precision.
- Accuracy: 0.0032".
- Supplied with chuck key.

MADE IN TAIWAN



Item#	Capacity	Taper Mount
3701-0108	1/64~1/2"	JT33
3701-0110	1/64~1/2"	JT6
3701-0115	1/32~5/8"	JT3
3701-0120	1/8"~3/4"	JT4

BALL BEARING DRILL CHUCKS - With Key

- Extra heavy duty.
- Anti-thrust ball bearing to increase the grip power with high speed drilling.
- All parts hardened and precision ground.
- Ultra smooth with ball bearing.
- Supplied with chuck key.

RUNOUT: < 0.0032"

Item#	Capacity	Taper Mount
3700-1091	1/32~3/8"	JT2
3700-1092	1/32~1/2"	JT6
3700-1093	1/32~1/2"	JT33
3700-1094	1/32~1/2"	JT3
3700-1095	1/32~5/8"	JT3
3700-1097	1/32~3/4"	JT4



DRILL CHUCKS & KEYS

DRILL CHUCK WITH KEY & ARBOR KITS

- Accuracate and strong gripping force.
- For portable, bench or floor type drill presses.
- Arbors are hardened and ground.
- Supplied with chuck key.

Item#	Clamping Capacity	Taper Mount	Arbor Included
9999-0008	1/32~3/8"	JT2	MT2
9999-0009	1/32~3/8"	JT2	1/2" Straight
9999-0010	1/32~3/8"	JT2	R8
9999-0011	1/32~1/2"	JT33	MT2
9999-0012	1/32~1/2"	JT33	MT3
9999-0013	1/32~1/2"	JT33	1/2"' Straight
9999-0014	1/32~1/2"	JT33	5/8" Straight
9999-0015	1/32~1/2"	JT33	R8
9999-0016	1/8~5/8"	JT3	MT3
9999-0017	1/8~5/8"	JT3	MT4
9999-0018	1/8~5/8"	JT3	5/8" Straight
9999-0019	1/8~5/8"	JT3	3/4" Straight
9999-0020	1/8~5/8"	JT3	R8
9999-0021	3/16~3/4"	JT3	MT4
9999-0022	3/16~3/4"	JT3	3/4" Straight
9999-0023	3/16~3/4"	JT3	R8


MT Shank
9999-0008 Shown


STRAIGHT SHANK
9999-0013 Shown

BUY A KIT & SAVE !


R8 Shank
9999-0020 Shown



DRILL CHUCK WITH KEY, CHUCK ARBOR & CHUCK WEDGE KITS

- Drill chuck has accuracate and strong gripping force.
- Chuck arbors/shanks are hardened and ground.
- Chuck wedges are for removing taper mount chucks from arbors or spindles.
- The taper mounted chuck is used for portable, bench or floor type drill presses and is supplied with chuck key.

Kit Includes:

1- Drill Chuck
1- Drill Chuck Key
1-Chuck Arbor
1(pair)- Chuck Wedges

BUY A KIT & SAVE !

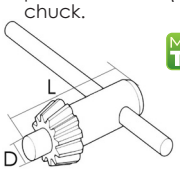

R8 Shank
Shown


MT Shank
Shown

Item#	Clamping Capacity	Taper Mount	Arbor Included	Wedge Included
9999-0025	1/32~3/8"	JT2	MT2	JT2
9999-0024	1/32~5/8"	JT3	MT3	JT3
9999-0026	3/16~3/4"	JT3	MT4	JT3
9999-0027	3/16~3/4"	JT3	R8	JT3

VERTEX® REPLACEMENT DRILL CHUCK KEYS

- For key type drill.
- Measure the chucks diameter of the pilot hole/shank(D) to match drill chuck.



MADE IN TAIWAN



Unit: Inch/mm

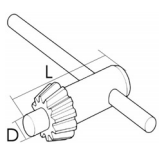
Item#	Type	D	L
3070-0041	T1	0.125 / 3.2	1.378 / 35
3070-0042	T2	0.154 / 4	1.654 / 42
3070-0045	T4	0.236 / 6	1.772 / 845
3070-0047	T5	0.255 / 6.5	1.772 / 45
3070-0049	T7	0.314 / 8	1.969 / 50
3070-0057	T8	0.374 / 9.5	2.560 / 65

VERTEX® REPLACEMENT DRILL CHUCK KEY SETS

- **IMPORTANT:** Pilot hole size determines the drill chuck key you need. Use a caliper or ruler to accurately measure the pilot's size (the hole diameter where the key fits into the drill chuck).
- **CONFRIM CORRECT SIZE BEFORE ORDERING:** These keys are specifically designed to fil drill chucks with pilot sizes listed in chart.
- Compact, lightweight and precisely machined to ensure a secure fit and proper engagement with the drill chuck.
- Made from durable and sturdy steel







Drill Chuck Key Sets

Item#	Incudes Type
9999-0063	T1, T2, T4
9999-0064	T5, T7, T8
9999-0065	T4, T5, T7

SPECIFICATIONS: *Unit: Inch/mm*

Type	D	L
T1	0.125 / 3.2	1.378 / 35
T2	0.154 / 4	1.654 / 42
T4	0.236 / 6	1.772 / 845
T5	0.255 / 6.5	1.772 / 45
T7	0.314 / 8	1.969 / 50
T8	0.374 / 9.5	2.560 / 65

3 PC PIN CHUCK SET

- Holds small drills firmly.
- Ensures complete collet length.
- Overall length: 2-1/2"
- Shank size: 1/4"



Includes:
3 Collets - capacity: 0 - 1/32", 1/32 - 1/16", 1/16 - 3/32"

3700-0501

4 PC PIN VISE SET



- Hollow handle for long wire or rods.

Includes:
Ranges: 0~.055", .025~.075", .045~.125", .110~.187"

3700-0505

CHUCK WEDGE SETS



Item#	JT #
3700-0401	2
3700-0402	3
3700-0405	6&33

- For removing taper mount chucks from arbors or spindles.
- 2 pc per set.

DRILL CHUCK ARBORS



Hardened & Ground



Item#	Arbor Taper to Chuck
3700-0111	MT1 to JT0
3700-0112	MT1 to JT1
3700-0113	MT1 to JT33
3700-0115	MT2 to JT1
3700-0151	MT2 to JT2
3700-0149	MT2 to JT3
3700-0117	MT2 to JT4
3700-0150	MT2 to JT6
3700-0152	MT2 to JT33
3700-0153	MT3 to JT33
3700-0154	MT3 to JT2
3700-0155	MT3 to JT3
3700-0159	MT3 to JT4
3700-0156	MT3 to JT6
3700-0160	MT4 to JT3
3700-0161	MT4 to JT4
3700-0157	MT4 to JT33
3700-0120	MT4 to JT5
3700-0158	MT4 to JT6
3700-0123	MT5 to JT3
3700-0124	MT5 to JT4

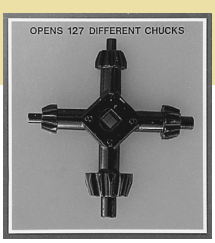
* Limited Supply

Straight TO JT

Item#	Arbor Taper to Chuck
3700-0162	1/2" to JT0
3700-0163	1/2" to JT1
3700-0164	1/2" to JT2
3700-0178	1/2" to JT3
3700-0165	1/2" to JT6
3700-0170	1/2" to JT33
3700-0166	5/8" to JT2
3700-0171	5/8" to JT33
3700-0185	5/8" to JT1
3700-0187	5/8" to JT3
3700-0189	5/8" to JT6
3700-0167	3/4" to JT2
3700-0168	3/4" to JT3
3700-0172	3/4" to JT33
3700-0180	3/4" to JT4
3700-0181	3/4" to JT6
3700-1721	7/8" to JT33
3700-0191*	1" to JT2
3700-0174*	1" to JT33
3700-0193*	1" to JT4
3700-0173*	1-1/4" to JT33
3700-0175*	1-1/2" to JT33
3700-0176	1-3/4" to JT33

4-IN-1 MASTER DRILL CHUCK KEYS

- Convenient one-key can open different chucks.
- Fits most popular chucks.



3070-0048
For SIZE: K1,K2,K3,K4

3070-0481
For SIZE: K5,K6,K7,K8

MT TO JT REVOLVING TAILSTOCK ARBORS/ADAPTERS

- Use to support small diameter work where a live center is not practical.
- This is a "live" adapter with smooth, sealed bearings for the tailstock.
- Use it to mate with any Jacob Taper (JT) taper drill chuck.
- The shank is Morse taper(MT).

MT2 x JT2
3906-4922



MT TO JT



* Drill Chuck Not Included



Item#	Taper	Drawbar Thread
3906-4922	MT 2 x JT2	M10
3906-4925	MT2 x JT3	M10
3906-4928*	MT3 x JT2	M12
3906-4932	MT3 x JT3	M12

* Limited Supply

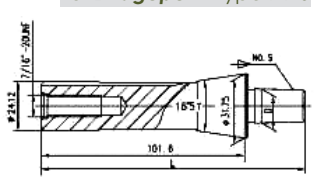
R8 DRILL CHUCK ARBORS

- Hardened and ground.

for ***Bridgeport***® type mills

R8 TO JT



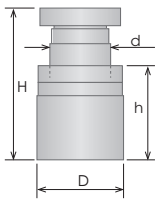


DRAWBAR END THREAD: **7/16" -20**

Item#	Arbor Taper to Chuck	D (mm)	L (mm)
3700-0135	R8 to JT2	14.199	128
3700-0138	R8 to JT3	20.599	137
3700-0131	R8 to JT33	15.85	132
3700-0139	R8 to JT4	28.55	148
3700-0140	R8 to JT6	17.17	132

ADJUSTABLE SCREW JACKS

- Ideal for setup work where fine adjustment may be required to level work piece or as a replacement for a step block when using a clamp kit.
- Acme threads
- Made from high quality tool steel.





Item#	Adjustable Range	H	h	d	D
3901-0076	23-30mm	30	23	M16	34
3901-0077	40-60mm	60	40	M16	34
3901-0078	70-100mm	100	70	Tr30x4	50
3901-0079	100-140mm	140	100	Tr30x4	50

VERTEX® SCREW JACKS

- Ideal for setup work where fine adjustment may be required to level work piece or as a replacement for a step block when using a clamp kit.
- Acme threads
- Manufactured from toughened steel

MADE IN TAIWAN

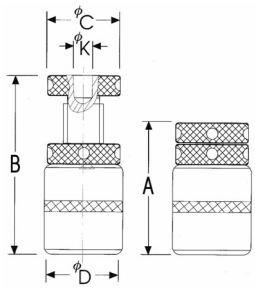


Item#	Adjustable Range	Body Dia.	Weight (lbs)
3901-0072	1.57~2.17"	1.5"	0.7
3901-0073	2.76~3.74"	1.5"	1.0
3901-0074	3.94~5.91"	2.0"	2.5
3901-0075	6~9"	2.83"	10

VERTEX® SCREW JACKS WITH MAGNETS

- Cross type fixture gives best positioning.
- Built-in magnets.
- Easy to clean chips.
- Adjustable height.

MADE IN TAIWAN









Item#	A	B	(mm) C	D	K
3901-0088	51	65	35	40	11.5
3901-0090	86	116	40	45	11.5
3901-0092	110	170	45	50	11.5

"LITTLE GIANT" STYLE SCREW JACK SETS

- For leveling work on planer beds and upright drills or for setting up machinery



Item#	Lift Range	No. of Pieces
3900-0260	1-1/2 to 2-1/4"	6
3900-0266	2-1/4 to 3-3/8"	6

MACHINIST'S JACK

- Tested lifting capacity- approximately 1000 lbs.
- Made of heavy cast steel.
- Adjustable screw and tilting swivel head.
- Adjustable pin and lock nut for permanent positioning.
- 3-4" Range, 1" height adjustment

3900-0070



VERTEX® 60-140MM SCREW JACK SET

- Suitable for irregular workpieces rapid setting.
- Work clamping & support.
- Adjustable height.
- Ideal for work clamping and fixed support.

MADE IN TAIWAN





10 PC Set
60-140mm
3901-0095



Includes:
2pcs. 65-90mm jacks
2pcs. 90-140mm jacks
6pcs. 1A, 2A, 3A, 4A, 5A, 6A pads - 1 each pad

VERTEX® 4 PC T-SLOT CLAMPING KITS

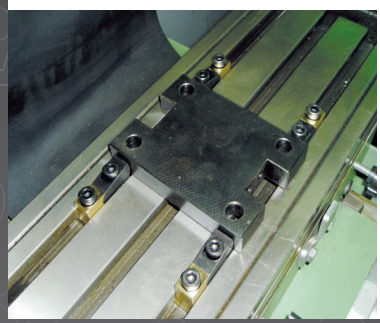
- Special made downward force for holding thin or small workpiece
- Used for milling, drilling and EDM with T-slot table
- Quick and easy setting with hex key wrench
- Made of tool steel hardened
- With fitted wood case

Kit includes:
4 pc of t-slot,
clamping pieces and bolts

4 PC KIT

Item#	Table Slot
3900-0314	0.453" / 11mm
3900-0315	0.531" / 13.5mm
3900-0316	0.610" / 15.5mm





MADE IN TAIWAN



ADJUSTABLE CLAMPING ASSEMBLIES

- One piece assembly allows quick set-up on mill tables with T-slot.
- Instant height adjustment.
- Attached brass shims protect machine table and workpiece

PRICED PER EACH

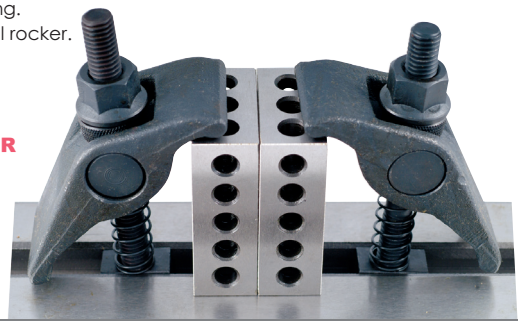


Item#	T-slot Bolt T-slot	Clamping (Stud x Length)	Clamping Range	Each Width
3900-0301	3/8"	3/8"-16 x 3"	Up to 1-3/4"	1-1/4"
3900-0302	1/2"	1/2"-13 x 4"	Up to 2-1/16"	1-5/8"
3900-0303	5/8"	5/8"-11 x 5"	Up to 3"	1-7/8"

HEAVY DUTY HOLD-DOWN CLAMP SETS

- One piece forged steel heads, fully heat treated.
- Allows quick set-up on mill table with T-slot.
- Instant height adjustment.
- Self-positioning.
- Hinged swivel rocker.

PRICED AND SOLD BY PAIR



Item#	T-slot	Size of Head	Clamping Range	Load Limit (lbs)
3900-0306	5/8"	4.4 x 1.8"	Up to 3"	16,000
3900-0307	3/4"	5.0 x 2.1"	Up to 4"	18,000
3900-0312	7/8"	6.0 x 2.3"	Up to 5"	24,000

12 PC T-SLOT CLAMPING KIT



- Quick and easy setting with hex key wrench
- Used for working table with 5/8" T-slot
- Made of hardened tool steel.
- **Kit includes:** 4 pc of t-nuts, 6 pc of clamps, 2 pc of hex keys.
- With fitted case

12 PC SET
5/8 T-NUT(1/2"~13)
3900-0318

10 PC HEAVY DUTY HOLD-DOWN CLAMP SET

- One piece forged steel heads, fully heat treated.
- Allows quick set-up on mill table with T-slot.
- Instant height adjustment.
- Self-positioning.
- Hinged brass swivel rocker protecting workpiece.



PRICED AND SOLD BY PAIR

Limited Supply!



10 PC SET

Item#	T-slot Width	Size of Clamp (WidthxLength)	Clamping Range	Stud Thread
3900-0326	0.74"	2.25x7"	Up to 5"	5/8~11

T-SLOT CLEANER

- Fits most of Bridgeport type mill tables.



7016-0030

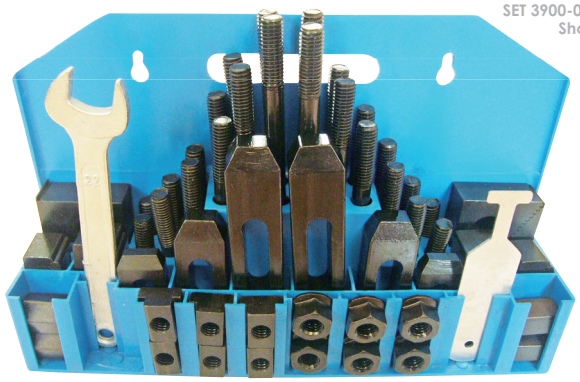
Pro-Series 58 PC STEEL CLAMPING KITS

- Fits milling machines, tables & machines with T-slots.
- Made of powdered casting steel for stronger strength.
- All parts heat treated.
- Plastic rack included.

Item#	Table Slot	Stud Size
3900-2110	3/8"	5/16"~18
3900-0002	1/2"	3/8"~16
3900-2112	7/16"	3/8"~16
3900-0001*	5/8"	1/2"~13
3900-0003	3/4"	5/8"~11

5/8" T-Slot
3900-0001

Each Kit Contains						
24	4	6	6	6	12	1
Studs 4 of ea. 3", 4", 5", 6", 7", 8" long	Coupling units	Flange nuts	Forged steel step clamps 2 ea. based on stud sets	T-Nuts	Steel step blocks	Wall rack


SET 3900-0001 Shown

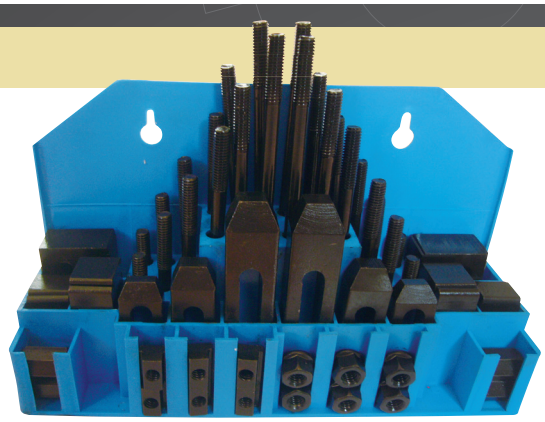
* T- SLOT CLEANER & WRENCH INCLUDED

Ultra Quality 58 PC STEEL CLAMPING KITS

- **Manufactured at world class factory that produces highest quality US brands.**
- Made of IC45e steel for stronger strength.
- All parts are case hardened or heat treated to HRC30~40.

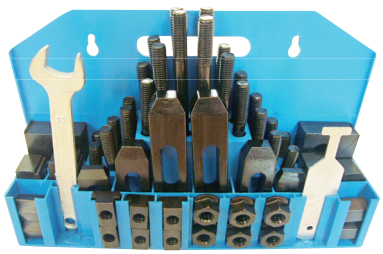
Item#	Table Slot	Stud Size
3901-0002	7/16"	3/8"~16
3901-0006	5/8"	1/2"~13

Each Kit Contains						
24	4	6	6	6	12	1
Studs 4 of ea. 3", 4", 5", 6", 7", 8" long	Coupling units	Flange nuts	Forged steel step clamps 2 ea. based on stud sets	T-Nuts	Steel step blocks	Wall rack

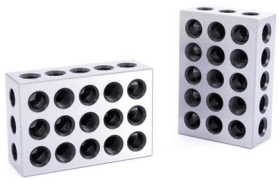


Pro-Series 5/8" T-SLOT 58 PC. CLAMPING KIT WITH PRECISION 1-2-3 BLOCKS

- Clamping kit parts are made of heat treated powdered casting steel for stronger strength.
- Clamping kit stud size is 1/2"-13.
- Includes 4 each of 3", 4", 5", 6", 7" and 8" studs, 4 coupling nuts, 6 flanged nuts, 6 forged steel step clamps, 6 t-nuts, 12 steel step blocks, 1 wall rack, 1 t-slot cleaner and 1 wrench.
- The Precision 1-2-3 blocks are a matched pair.
- The blocks are heat treated and case hardened to HRC 55 to 60.
- The blocks are also hardened and precision ground on all 6 sides.
- Each block has and accuracy with squareness on all sides within 0002" per inch.
- The blocks have 23 holes that consist of 5 tapped holes that are 3/8"-16 for clamping and 18 untapped holes.
- The cross drilling design gives minimum weight and maximum strength.



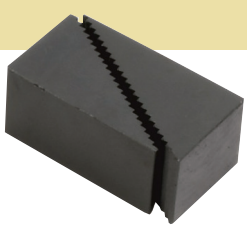
MATCHED PAIR

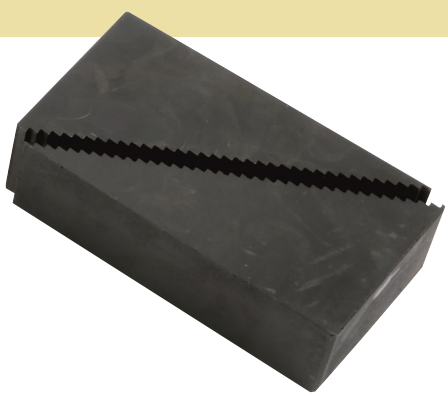


9999-0058
Weight 22 lbs.

4 PC STEP BLOCK SET - Two Pair

- **Precision Machined** – Each block is carefully machined for accuracy, ensuring precise workholding and alignment.
- **Two-Pair Design** – Includes two pairs of blocks, providing multiple height options for versatile setups.
- **Durable Construction** – Made from drop-forged steel for long-lasting durability and resistance to wear. Case hardened and heat treated.
- **Versatile Applications** – Ideal for use in machining, milling, and grinding operations to support and align workpieces.
- **Step Design** – Features stepped heights for adjusting workpiece positioning at different levels, enhancing flexibility in setups.
- **Compact and Easy to Use** – Designed for simple placement and adjustments, saving time during setup.
- **Ideal for Workshops** – A must-have for machinists and fabricators who require precision in workpiece clamping and alignment.





4 PC Set-2 Pair
3906-0354

Includes:
1 pair (2 each) of 1-9/16 x 1 x 3/4"
and 1 pair (2 each) of 2-5/8 x 1-5/16 x 3/4".

INCH CLAMPING STUDS

- Made of alloy steel and heat treated.
- Black oxide finish.

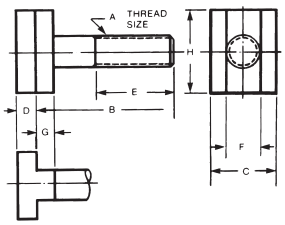


Item#	Stud Thread	Overall Length
3421-3984	1/4~20	2
3421-4008	1/4~20	3
3421-4024	1/4~20	4
3436-3250	5/16~18	2
3436-3276	5/16~18	3
3436-3292	5/16~18	4
3436-3318	3/8~16	2
3436-3334	3/8~16	3
3436-3359	3/8~16	4
3436-3375	3/8~16	5
3436-3391	3/8~16	6
3436-3409	3/8~16	7
3436-3417	3/8~16	8
3436-3425	1/2~13	2
3436-3441	1/2~13	3
3436-3466	1/2~13	4
3436-3490	1/2~13	5
3436-3516	1/2~13	6
3436-3524	1/2~13	7
3436-3532	1/2~13	8
3436-3540	1/2~13	9
3436-3581	5/8~11	3
3436-3607	5/8~11	4
3436-3623	5/8~11	5

Item#	Stud Thread	Overall Length
3436-3649	5/8~11	6
3436-3656	5/8~11	7
3436-3664	5/8~11	8
3436-3672	5/8~11	9
3436-3680	5/8~11	10
3436-3698	5/8~11	12
3436-3722	3/4~10	4
3436-3748	3/4~10	5
3436-3763	3/4~10	6
3436-3771	3/4~10	7
3436-3789	3/4~10	8
3436-3805	3/4~10	12
3436-3813	7/8~9	4
3436-3821	7/8~9	5
3436-3839	7/8~9	6
3436-3847	7/8~9	8
3436-3854	7/8~9	10
3436-3870	1~8	4
3436-3888	1~8	5
3436-3896	1~8	6
3436-3904	1~8	8
3436-3912	1~8	10
3436-3920	1~8	12

T - SLOT BOLTS

- Forged steel with milled T-slot guide
- Black oxide finish.
- Heat treated to HRC 36-40.





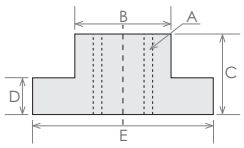
Item#	T-Slot F (In)	Thread (A)	Length Under Head B (In)	Thread Length E
3900-1270	1/2	1/2"~13	2	1
3900-1272	1/2	1/2"~13	3	1-1/2
3900-1274	1/2	1/2"~13	4	1-1/2
3900-1275	1/2	1/2"~13	5	2
3900-1279	5/8	5/8"~11	2-1/2	1-1/4
3900-1280	5/8	5/8"~11	3	1-1/2
3900-1281	5/8	5/8"~11	3-1/2	1-1/2
3900-1282	5/8	5/8"~11	4	1-1/2
3900-1283	5/8	5/8"~11	5	1-1/2
3900-1284	5/8	5/8"~11	6	1-1/2
3900-1285	5/8	5/8"~11	8	3
3900-1289	3/4	3/4"~10	3	1-1/4
3900-1291	3/4	3/4"~10	4	1-1/2
3900-1298*	1	1"~8	4	2

* Limited Supply

T - SLOT NUTS

- Heat treated steel.
- Black oxide finish.
- Case hardened.
- 1040 Steel.



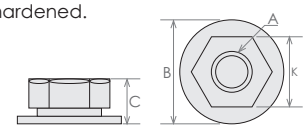


Item#	B (In)	Thread A	C (In)	D (In)	E (In)	Length (In)
3900-1201	3/8	5/16"~18	1/2	3/16	5/8	7/8
3900-1202	7/16	3/8"~16	1/2	7/32	11/16	7/8
3900-1203	1/2	3/8"~16	1/2	9/32	7/8	7/8
3903-1214	9/16	3/8"~16	5/8	11/32	7/8	1-1/8
3900-1204	9/16	1/2"~13	5/8	11/32	1	1-1/8
3900-1205	5/8	1/2"~13	5/8	11/32	1-1/8	1-1/8
3903-1217	11/16	1/2"~13	3/4	7/16	1-1/8	1-1/4
3903-1218	11/16	5/8"~11	3/4	7/16	1-1/4	1-1/4
3900-1213	3/4	5/8"~11	3/4	15/32	1-1/4	1-1/4
3900-1209	7/8	3/4"~10	1	9/16	1-1/2	1-1/2
3903-1223	1	3/4"~10	1	5/8	1-5/8	1-3/4
3903-1224*	1-1/16	3/4"~10	1-1/8	11/16	1-5/8	2
3900-1210	1	7/8"~9	1	5/8	1-5/8	1-3/4
3903-1226*	1-1/16	1"~8	1-1/8	11/16	1-5/8	2

* Limited Supply

FLANGED NUTS

- Heat treated steel.
- Black oxide finish.
- Case hardened.





Item#	Thread A	B (Inch)	C (Inch)	K (Inch)
3900-1221	5/16"~18	11/16	9/32	1/2
3900-1222	3/8"~16	3/4	9/32	9/16
3900-1224	1/2"~13	1-5/32	1/2	7/8
3900-1225	5/8"~11	1-5/16	5/8	15/16
3900-1228	3/4"~10	1-1/2	21/32	1-1/8
3900-1227*	7/8"~9	1-3/4	3/4	1-5/16

* Limited Supply

COUPLING NUTS

- Case hardened.
- Black oxide finish.



Item#	Thread	Hex	Height
3900-1181	1/4"~20	1/2	5/8
3900-1183	5/16"~18	9/16	7/8
3900-1185	3/8"~16	11/16	1
3900-1187	1/2"~13	7/8	1-1/4
3900-1189	5/8"~11	1-1/16	1-3/4
3900-1191	3/4"~10	1-1/4	1-7/8
3900-1193	7/8"~9	1-7/16	2-1/4
3900-1195	1"~8	1-5/8	2-1/2

CLAMPING KITS - METRIC

VERTEX® 58 PC METRIC STEEL CLAMPING KITS

- Fits milling machines, tables & machines with T-slots.
- Made of powdered casting steel for stronger strength.
- All parts heat treated.
- Plastic rack included.

Item#	Table Slot	Stud Size
3901-0008	10mm	M8x1.25P
3901-0010	12mm	M10x1.5P
3901-0012	14mm	M12x1.75P

MADE IN TAIWAN



3901-0012 Shown

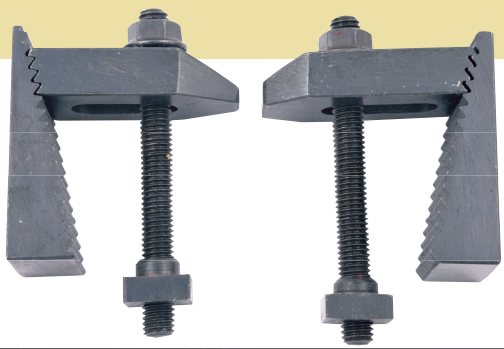
Each Kit Contains						
24	4	6	6	6	12	1
Studs 4 of ea. 3", 4", 5", 6", 7", 8" long	Coupling units	Flange nuts	Forged steel step clamps 2 ea. based on stud sets	T-Nuts	Steel step blocks	Wall rack

10 PC MINI STEEL CLAMPING KITS

- Drop forged steel.
- All parts are case hardened and heat treated.

EACH KIT CONTAINS: Two pc each of Step Clamp, Step Block, Stud, T-slot Nut & Flange Nut.





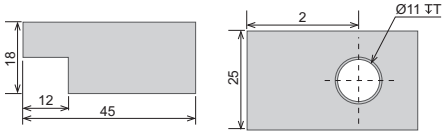
Item#	T-Slot Nut Width	Stud Thread	Clamp Capacity
3906-0320	13x7.5mm	M6x1.00	Up to 22mm
3906-0322	16x10.5mm	M8x1.25	Up to 45mm

8 PC M12 T-SLOT STEEL HOLD DOWN CLAMP KIT

- **Durable Steel Construction** – Made from drop-forged steel for long-lasting performance and reliability. All parts are case hardened and heat treated.
- **Secure Workholding** – Designed for firmly securing materials during milling, drilling, and machining operations.
- **Precision Machined Threads** – M10 threaded components ensure a strong and accurate fit.
- **Compatible with T-Slot Tables** – Suitable for use with milling machines, drill presses, and other equipment.
- **Corrosion-Resistant Finish** – Provides added durability and protection against wear.
- **Ideal for Workshops & Machine Shops** – A must-have for machinists, fabricators, and metalworkers.

Kit includes:
2 pieces each of the clamp, stud, t-slot nut & flange nut.





DIMENSIONS

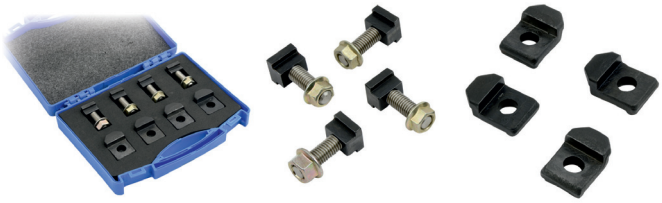
Clamp	Stud	T-Slot Nut	Flange Nut
45x25x18mm	M10x50mm	M10	M10

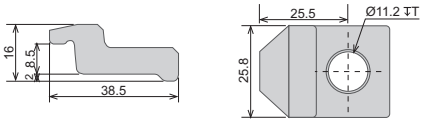
8 PC SET
3906-0328
Thread M10x1.5

16 PC 12MM T-SLOT STEEL HOLD DOWN CLAMP KIT

- **Durable Steel Construction** – Made from drop-forged steel for long-lasting performance and reliability. All parts are case hardened and heat treated.
- **Secure Workholding** – Designed for firmly securing materials during milling, drilling, and machining operations.
- **Precision Machined Threads** – M10 threaded components ensure a strong and accurate fit.
- **Compatible with T-Slot Tables** – Suitable for use with milling machines, drill presses, and other equipment.
- **Corrosion-Resistant Finish** – Provides added durability and protection against wear.
- **Ideal for Workshops & Machine Shops** – A must-have for machinists, fabricators, and metalworkers.

Kit includes:
4 pieces each of the clamp, stud, t-slot nut, flange nut & fitted case.





DIMENSIONS

Clamp	Stud	T-Slot Nut	Flange Nut
38x25.4mm	M10x50mm	M10	M10

16 PC SET
3906-0332
Thread M10x1.5

CLAMPING STUDS - Metric Thread

- Made of alloy steel and heat treated.
- Black oxide finish.



Item#	Stud Thread	Overall Length
3436-5001	M8X1.25	75
3436-5008	M10X1.25	100
3436-5010	M10X1.25	150
3436-5013	M12X1.75	75
3436-5014	M12X1.75	100
3436-5015	M12X1.75	125
3436-5016	M12X1.75	150
3436-5017	M12X1.75	175
3436-5018	M12X1.75	200

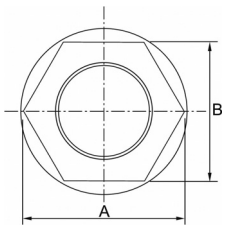
Item#	Stud Thread	Overall Length
3436-5022	M14X2.00	150
3436-5026	M16X2.00	100
3436-5028	M16X2.00	150
3436-5030	M16X2.00	200
3436-5033	M18X2.50	150
3436-5037	M20X2.50	100
3436-5038	M20X2.50	125
3436-5039	M20X2.50	150
3436-5047	M22X2.50	200

VERTEX® FLANGE NUTS - Metric Thread

- Heat treated steel.
- Black oxide finish.
- Case hardened.

MADE IN TAIWAN



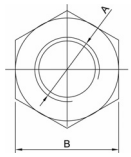


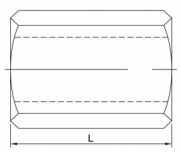
Item#	Thread	A	(mm) B	C	D
3903-1262	M8x1.25	19	13	8	2
3903-1263	M10x1.5	22	17	12	3
3903-1264	M12x1.75	28	21	16	4
3903-1266	M16x2.0	35	26	17	5
3903-1268	M20x2.5	40	32	25	6

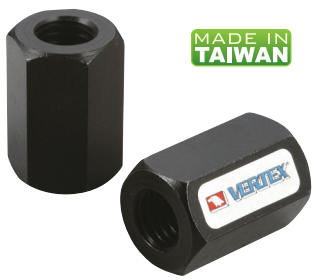
VERTEX® COUPLING NUTS - Metric Thread

- Case hardened.
- Black oxide finish.

MADE IN TAIWAN





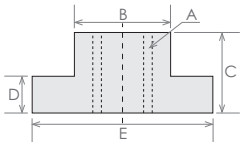


Item#	Thread A	Parallel B	Length L
3903-1312	M8x1.25	13	22
3903-1313	M10x1.5	17	25
3903-1314	M12x1.75	21	32
3903-1315	M14x2.0	21	32
3903-1316	M16x2.0	26	41
3903-1317	M18x2.5	32	48
3903-1318	M20x2.5	32	48

Pro-Series T - SLOT NUTS - Metric Thread

- Heat treated steel.
- Black oxide finish.
- Case hardened.
- 1040 Steel.



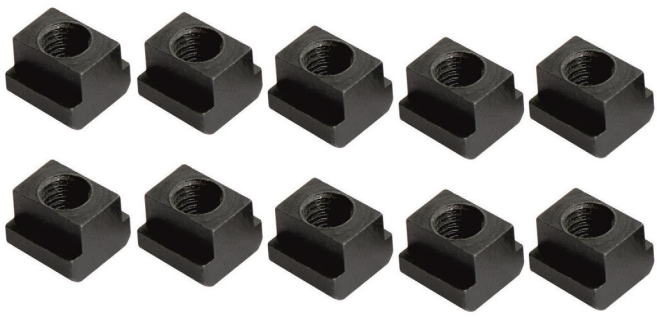


Item#	B (mm)	Thread A	C (mm)	D (mm)	E (mm)	Length (mm)
3903-1236	7.7	M6	9.5	4.5	14	15
3903-1238	9.7	M8	12	6	15	18
3903-1240	11.7	M10	14	7	21	22
3903-1242	13.7	M12	16	8	22	27
3903-1244	15.7	M14	18	8.5	25	28
3903-1246	17.7	M16	20	10	28	30
3903-1248	19.7	M18	24	10.5	32	32
3903-1250	21.7	M20	28	13	36	36
3903-1252*	23.7	M22	32	15	40	40
3903-1254*	27.7	M24	36	16	44	44

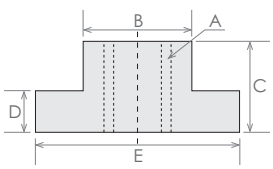
* Limited Supply

10 PC METRIC T-SLOT NUT SETS

- **Precision Design** – Engineered to fit snugly into T-slots for secure and stable clamping.
- **Metric Threading** – Designed with metric threads to ensure compatibility with metric T-slot bolts.
- **Durable Construction** –made from drop-forged steel for long-lasting performance. Case hardened and heat treated.
- **Versatile Application** – Suitable for use in a variety of machines, such as milling machines, CNC machines, and worktables.
- **Improved Clamping Force** – Provides a strong and reliable hold for securing workpieces during machining operations.
- **Includes:** 10 t-slot nuts in the stud thread you need.



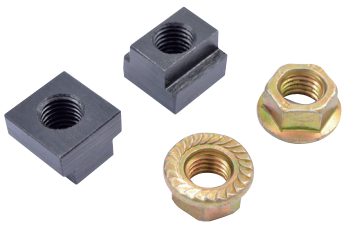
3903-1258 Shown

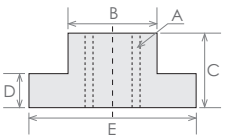


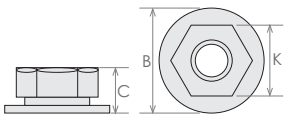
Item#	Stud Thread A	T-Slot B	C	(mm) D	E
3903-1256	M6x1.00	7.5	7.5	4	12.2
3903-1257	M8x1.25	10.5	8.8	4.9	15.8
3903-1258	M10X1.50	12	12	5.1	18.1
3903-1259	M12X1.75	14	16	8.2	22

20 PC METRIC T-SLOT NUT & FLANGE NUT SETS

- **Metric Threading** – Designed with precise metric threads for compatibility with metric bolts, ensuring a secure fit and optimal performance.
- **T-Slot Compatibility** – T-slot nuts are engineered to fit snugly into T-slots of worktables, machines, and fixtures for secure workholding.
- **Flange Design** – Flange nuts feature a wide base that distributes load evenly, reducing the risk of damage to surfaces and providing enhanced clamping strength.
- **Durable Construction** – Made from drop-forged steel for long-lasting performance and resistance to wear. Case hardened and heat treated.
- **Versatile Use** – Ideal for machine shops, CNC setups, worktables, and fixture applications.
- **Ease of Installation** – Simple to install and adjust within the T-slots or on threaded surfaces, allowing for quick changes and setups.
- **Enhanced Stability** – The design of the nuts ensures a stable, secure connection for precise clamping of workpieces during machining operations.
- **Includes:** 10 pieces of the t-slot nut and 10 pieces of the flange nut in the stud thread you need.











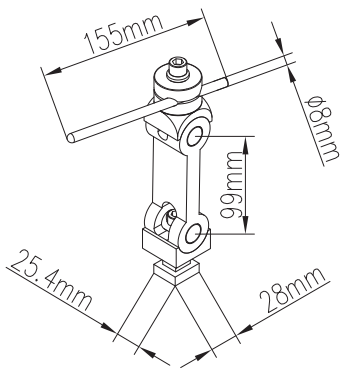
Unit: mm

Item#	Stud Thread (A)	T-SLOT NUT				FLANGE NUT		
		B	C	D	E	B	C	K
3903-1276	M6x1.00	7.5	7.5	4	12.2	13.3	5.9	10
3903-1277	M8x1.25	10.5	8.8	4.9	15.8	17	7.8	13
3903-1278	M10X1.50	12	12	5.1	18.1	19	8.6	14
3903-1279	M12X1.75	14	16	8.2	22	24	11.9	18

5 AXIS MILLING WORK STOP - 5/8" TABLE SLOTS

Enables versatile and precise positioning of workpieces for complex machining tasks. Offers a cost-effective solution for achieving accurate and repeatable setups without compromising quality. Simple and straightforward design for easy installation and usage. Despite the low cost, designed with durable materials to withstand machining forces and ensure long-term reliability. For use with repetitive jobs that require exact placement in the vise.





- 5 Axis Adjustment, 5/16" diameter x 6" length stop rod, locking lever can be positioned at 360 degrees.
- T nut fits 5/8" table slots.
- Height 8", Length 8"

3900-2117

UNIVERSAL WORK STOP

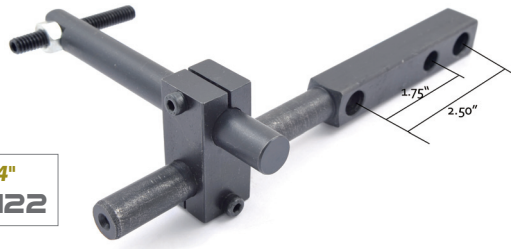
- Serves as a rigid stop for milling set-up.
- Made of hardened tool steel.
- Use with vises, angle plates, jigs, etc.
- Column: 5/8 x 6-1/4".
- Base: 5/8 x 2 x 4-3/8".
- Rod: 3/8 x 10".



3900-2125

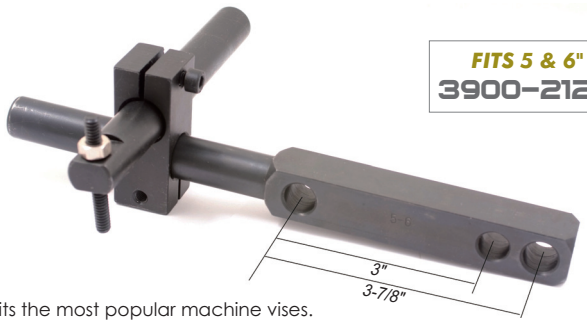
MILL VISE STOP - Fits 3 & 4"

- Fits the most popular machine vises.
- Bolt-on design, requires no modification to vise.
- Will work in left or right hand location.



FITS 3 & 4"
3900-2122

MILL VISE STOP - Fits 5 & 6"

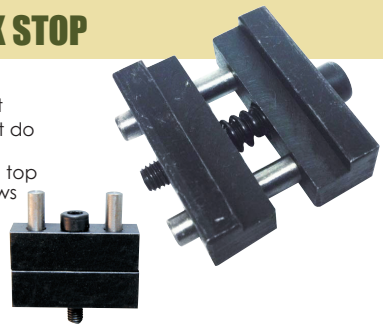


FITS 5 & 6"
3900-2123

- Fits the most popular machine vises.
- Bolt-on design, requires no modification to vise.
- Will work in left or right hand location.

QUICK CLAMP WORK STOP

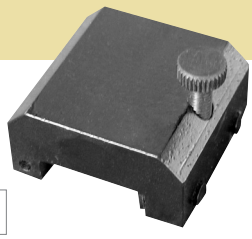
- Fits mill vises with 1/2-1" jaws
- steel body 1" wide x .38" height
- Very handy for small parts that do not require the full length
- Clamps quickly & easily to the top of existing hard jaws or soft jaws



3900-2131

VISE WORK STOP

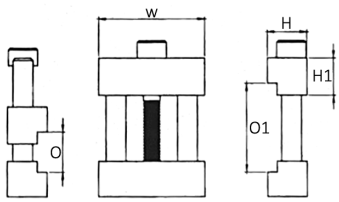
- To fit angle lock type vises.
- Single thumb screw tightens clamp to vise jaw.
- Two ground pins on both sides of clamp.
- Easily mounts to the top of most vise jaws.
- 7/8" capacity.



3900-2120

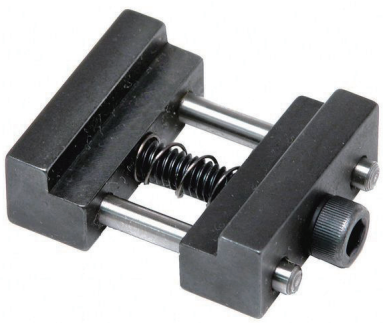
QUICK CLAMP WORK STOPS - For Machine Vise

- Fits mill vises with 3/8~7/8" thick jaws
- Steel body
- Very handy for small parts that do not require the full length of vise jaws.
- Clamps quickly & easily to the top of existing hard jaws or soft jaws



SPECIFICATIONS:

Item#	Min. Cap. (O)	Max Cap. (OI)	Width (W)	Thick. (H1)	Thick. (H)
3906-2131	3/8	3/4	1	3/8	3/8
3906-2132	1/2	7/8	1-1/2	1/2	1/2



3/8~3/4" Capacity
3906-2131

1/2~7/8" Capacity
3906-2132

3 PC PRECISION MACHINING VISE ACCESSORY COMBO - VISE STOP, QUICK CLAMP & WORK STOP



MILL VISE STOP - Fits 5 & 6"

- Fits the most popular machine vises.
- Bolt-on design, requires no modification to vise.
- Will work in left or right hand location.

3 PC COMBO
9999-0054

UNIVERSAL WORK STOP

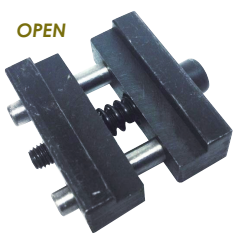
- Serves as a rigid stop for milling set-up.
- Made of hardened tool steel.
- Use with vises, angle plates, jigs, etc.
- Column: 5/8 x 6-1/4".
- Base: 5/8 x 2 x 4-3/8".
- Rod: 3/8 x 10".



CLOSED



OPEN

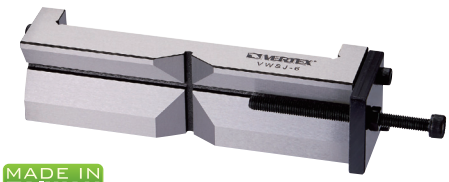


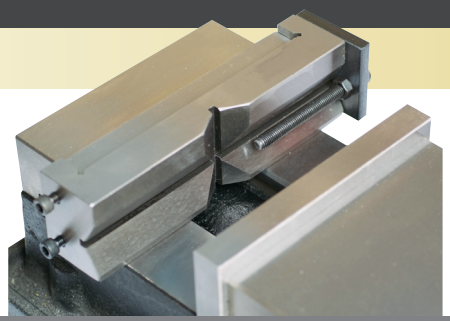
QUICK CLAMP WORK STOP

- Fits mill vises with 1/2-1" jaws
- Steel body 1" wide x .38" height
- Very handy for small parts
- Clamps quickly & easily to the top of existing hard jaws or soft jaws

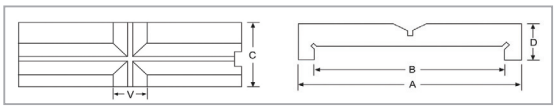
VERTEX® UNIVERSAL VISE JAWS WITH WORK STOP

- Multi-function V-shape jaw can hold workpiece at horizontal and vertical position.
- Made of high grade tool steel hardened and precision ground.
- Squareness and Parallelism: 0.0002".
- Will fit vise jaw with same or similar width.
- Two set screws are attached to vise and one long set screw used as work stop.





MADE IN TAIWAN



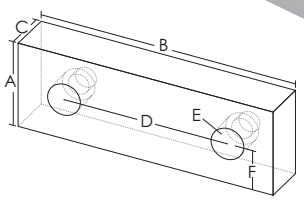
Item#	Fits Vise	Dimension (mm) A	B	C	D	V	Wt. (lbs)
3900-2164	4"	145	110	49	38	32	3.5
3900-2166	6"	190	160	53	40	32	4.8

ALUMINUM VISE JAWS

- Fits ***Kurt Anglock***™ & similar precision milling machine vises.
- Perfect for easy and quick set-ups,reducing down time.
- Customize jaws for drill or mill features.
- Reusable, saving you time and money.

Set of 2





MADE IN USA

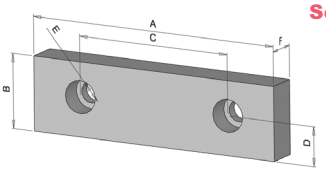
Item#	Vise Size	Height A	Length B	Hole Space D	Hole Dist. F	Screw Size E	Width C
3900-2180	4"	1-3/4	4	2-1/2	.687	3/8	3/4
3900-2184	4"	2	5	2-1/2	.687	3/8	1
3900-2188*	6"	2	6	3-7/8	.937	1/2	1

* Top/Bottom REVERSIBLE

STEEL VISE JAWS - Replacement

These vise jaws feature industry-standard Kurt-style mounting patterns for easy interchangeability, along with hardened steel construction to handle demanding machining applications. Designed for accurate workholding and long service life, they're an ideal solution for both replacement and shop upgrades.

- **Kurt -Style Compatibility** – Industry-standard mounting hole spacing allows easy interchange with most 3", 4", and 6" Kurt-style milling vises.
- **Hardened & Precision Ground** – Made from high-quality hardened steel for long wear life and consistent accuracy.
- **Secure, Reliable Grip** – Designed to provide stable workholding for milling, drilling, and machining applications.
- **Direct Replacement** – Ideal for replacing worn or damaged jaws without the cost of a new vise.
- **Professional-Grade Performance** – Built for machinists, tool rooms, and production environments.
- **Counterbored Mounting Holes** – Fits standard socket head cap screws for quick and secure installation.



Set of 2



Unit: Inch / mm

Item#	Fit Vise	A	B	C	D	E	F
3900-2133	3"	3.15/80	0.94/24	1.77/45	0.49/12.5	0.27/7	0.374/9.5
3900-2134	4"	3.93/100	1.25/32	2.50/63.5	0.63/16	0.35/9	0.47/12
3900-2136	6"	6.30/160	1.77/45	3.87/98.4	0.94/23.9	0.51/13	0.75/19

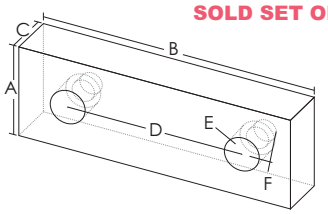
ALUMINUM & STEEL SOFT VISE JAWS

- Fits ***Kurt Anglock***™ , **HHIP** & similar precision milling machine vises.
- Ensures stable and secure grip on workpieces.
- Guards against surface damage or marring during clamping.
- Customize jaws for drill or mill features.
- **Material Compatibility:**
  - **Aluminum:** Suited for softer materials.
  - **Steel:** Ideal for heavy-duty machining with robust materials.
- Perfect for easy and quick set-ups, reducing down time.

SOLD SET OF 2 PCS



3900-2291 Shown





3900-2297 Shown

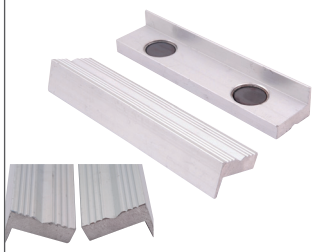
For Vise Size	Height A	Length B	Hole Space D	Screw Size E	Hole Size F	Jaw Thick. C	Material	Item#
4"	1-1/2	4-1/8	2.500	0.59	.413	1	Aluminum	**3900-2291**
4"	1-1/2	4-1/8	2.500	0.59	.413	1	Steel	**3900-2297**
6"	2	6-1/8	3.875	0.79	.530	1	Aluminum	**3900-2293**
6"	2	6-1/8	3.875	0.79	.530	1	Steel	**3900-2298**

MAGNETIC VISE JAWS

- Designed to protect both the vise jaws and the workpiece from marring and distortion during any clamping application.
- Constructed from a hardened aluminum alloy with two built-in circular permanent magnets on the backside which holds the workpiece securely to the vise.
- Different face material to ensure tight holding of different shapes and material of workpiece.

SOLD BY PAIR

SOFT FACE
Aluminum alloy design includes straight grooves to compensate for the unevenness of the workpiece.



PRISM FACE
Jaw construction includes a 120° horizontal V-groove and a vertical V-groove for marking out and center punching. Ideal for light tapping and thread cutting applications.



RUBBER FACE
Aluminum alloy with synthetic rubber cover , Jaw cap conforms to workpiece and grips firmly without slipping while protecting work surface.



Jaw Width	Jaw Height	Soft Face Item#	Prism Face Item#	Rubber Face Item#
3"	1-1/8"	3900-2143	3900-2261	3900-2271
4"	1-1/8"	3900-2145	3900-2263	----------
5"	1-1/8"	3900-2147	3900-2265	3900-2275
6"	1-1/8"	3900-2149	----------	3900-2277
8"	1-1/8"	3900-2152	----------	3900-2279

4 PC. ALUMINUM & RUBBER VISE JAW SETS - With Magnet

- Protects vise jaws and workpieces from damage
- Strong holding force using permanent magnets
- Designed for light clamping applications
- Multiple face materials for different workpieces

4 PC SET
5"Jaw Width
9999-0028

4 PC SET
6"Jaw Width
9999-0029

SOLD BY 2 PAIR
(Aluminum & Rubber)

SOFT FACE
Aluminum alloy design includes straight grooves to compensate for the unevenness of the workpiece.



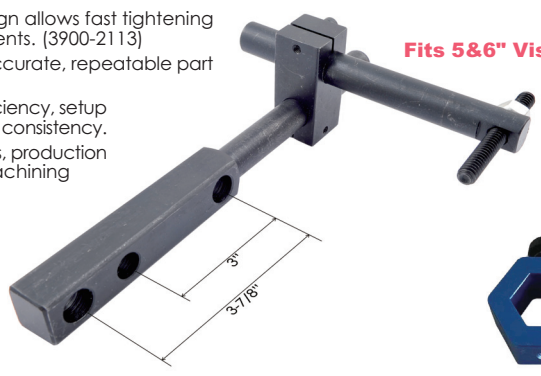
RUBBER FACE
Aluminum alloy with synthetic rubber cover , Jaw cap conforms to workpiece and grips firmly without slipping while protecting work surface.



Jaw Height: 1-1/8"

PRECISION MACHINE VISE ACCESSORY SET

- Quick-clamp speeds up vise setup and workpiece positioning. (3906-2132)
- Ergonomic handle design allows fast tightening and loosening adjustments. (3900-2113)
- Mill vise stop provides accurate, repeatable part positioning.(3900-2123)
- Improves machining efficiency, setup accuracy, and workflow consistency.
- Ideal for milling machines, production work, and repetitive machining operations.

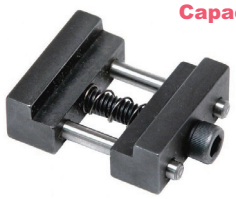


Fits 5&6" Vises

3 PC SET
9999-0055



For 3/4" Hex



1/2-7/8" Capacity

VISE HANDLES

QUICKIE DOUBLE SPEED VISE HANDLES - with Locking Screw & Magnet

- Speed up opening and closing of machine vises.
- Provides faster and more efficient production.
- Short turning radius for clamping more delicate parts.
- Machined anodized aluminum.
- Thumb knob locking screws allow the unit to stay locked to your vise during machining operations.
- Strong magnet on the backside of the body allows you to hang it from any metal surface.



LOCKING SCREW TO PREVENT DROP OFF



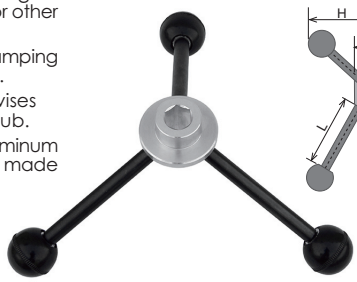


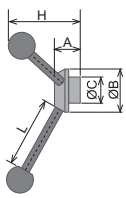


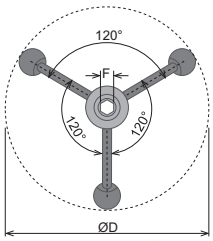
For 5/8" Hex DOUBLE HUB	For 3/4" Hex SINGLE HUB	For 3/4" Hex DOUBLE HUB
3900-2115	3900-2113	3900-2116

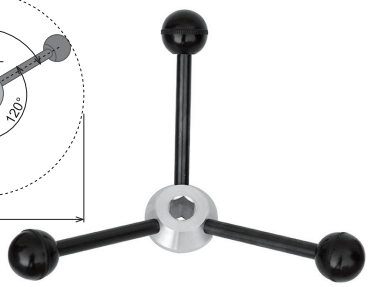
Pro-Series VISE SPEED HANDLES

- Designed for milling vises and used for other applications.
- Speed up the clamping force of the vise.
- Fits most milling vises with same hex hub.
- Hub made of aluminum and handles are made of steel.









Fits 9/16" Hex Hub 3906-0200

Fits 5/8" Hex Hub 3906-0201

Fits 3/4" Hex Hub 3906-0202

SPECIFICATIONS:

Item#	Hex Hub (F)	Max Dia. (D)	Depth (H)	Hub Height (A)	Hub Dia. (B)	Dia. (C)
3906-0200	9/16	12"	4-1/2	1-3/8	2-1/2	1-3/8
3906-0201	5/8	12"	4-1/2	1-3/8	2-1/2	1-3/8
3906-0202	3/4	12"	4-1/2	1-3/8	2-1/2	1-3/8

REPLACEMENT MILLING VISE HANDLES

- Designed for replacing worn or damaged handles on milling vises for smooth and reliable operation.
- Precision-machined hex hub provides a secure fit and positive engagement with compatible vise screws.
- Heavy-duty tool steel construction offers strength and durability for daily machine shop use.
- Ball-end crank handle allows comfortable grip and improved leverage during tightening and adjustment.
- Available in multiple hex hub sizes to fit a wide range of milling vises and Kurt-style vises.
- Ideal for manual mills, CNC mills, toolrooms, maintenance departments, and production machining environments.
- Quick and easy installation minimizes downtime and restores vise performance.
- Excellent for replacement, repair, or shop spare inventory applications.



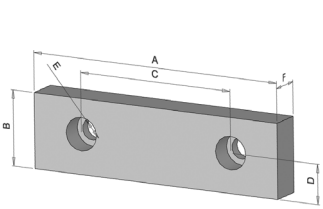
Item#	Hex Hub	Handle Length	Handle Thickness
3900-2137	1/2"	5.91"/150mm	0.47"/12mm
3900-2138	9/16"	5.91"/150mm	0.55"/14mm
3900-2139	3/4"	9.44"/240mm	0.75"/19mm

Pro-Series HEAVY DUTY MILLING VISES

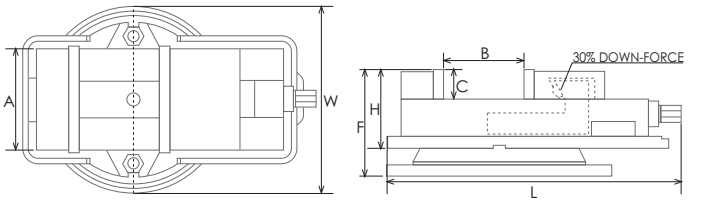
- Precision ground to accuracy.
- Full 360° swivel base with graduation included.
- Used in milling, shaping and drilling machines.
- Lock down design secures the movable jaw, preventing it from lifting upwards.
- Angle-Tight Positive-Lock style-jaws are interchangeable with American Standard vises.

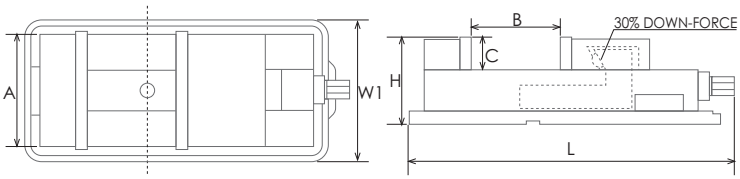
Jaw Dimensions

Jaw Width	(mm) A	B	C	D	E	F
3"	80	24	45	12.5	7	9.5
4"	100	32	63.5	16	9	12
5"	125	40	76	18	9	14
6"	160	45	98.4	23.9	13	19
8"	200	50	120.6	31	13	19









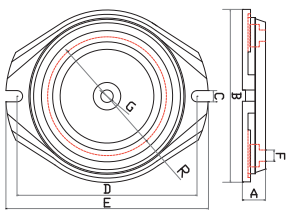


Jaw Width A	Jaw Openning B	Jaw Height C	(Inch) OAL L	Width of Swiv Base W	Width of Vise Base W1	Vise Height H	Height with Base F	Wt. (LBS.)	VISE ONLY Item#	VISE W/SWIV. BASE Item#
3	3.74	0.940	10.60	6.70	4.7	2.76	3.74	15/22	**3900-2223**	**3900-2104**
4	5.12	1.181	12.80	8.70	6.3	3.54	4.72	25/40	**3900-2224**	**3900-2102**
5	5.71	1.575	14.80	8.70	7.0	3.94	5.12	48	----------	**3900-2101**
6	8.00	1.932	18.70	11.0	8.9	4.53	5.98	68/86	**3900-2226**	**3900-2103**
8	9.25	1.969	20.90	16.1	--	4.92	7.87	130	----------	**3900-2106**

HEAVY-DUTY MILLING VISE SWIVEL BASES - Optional

- Precision-machined swivel base allows accurate vise positioning for milling, drilling, and machining operations.
- 360° rotation provides flexible workpiece setup and improved machining access.
- Heavy-duty cast iron construction delivers rigidity, vibration resistance, and long service life.
- Precision-ground mounting surfaces maintain alignment and machining accuracy.
- Designed for use with heavy-duty milling vises in toolrooms, production shops, and CNC machining applications.





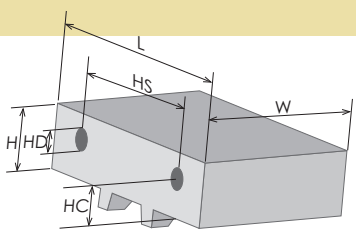
Unit: Inch / mm

Item#	Fit Vise	A	B	C	D	E	F	G	R
3900-2233	3"	0.98/25	6.61/168	0.47/12	6.3/160	7.36/187	0.39/10	0.55/14	3.86/98
3900-2234	4"	1.18/30	8.50/216	0.55/14	8.54/217	9.61/244	0.47/12	0.79/20	5.20/132
3900-2236	6"	1.46/37	11.22/285	0.71/18	11.18/284	12.68/322	0.71/18	0.79/20	7.48/190

JAW BLOCKS - Replacement

- Precision-ground jaw blocks provide accurate and repeatable workholding for milling, drilling, and grinding applications.
- Hardened steel construction resists wear, jaw deflection, and surface damage for long service life in demanding machine shop environments.
- Industry-standard mounting hole pattern allows compatibility with many Kurt-style and import milling vises.
- Ideal for replacement, repair, or upgrading existing milling vises used in machine shops, tool rooms, and production environments.
- Designed for holding flat stock, blocks, plates, and precision-machined parts securely during machining operations.
- Durable hardened jaw blocks help reduce workpiece movement and improve machining consistency.





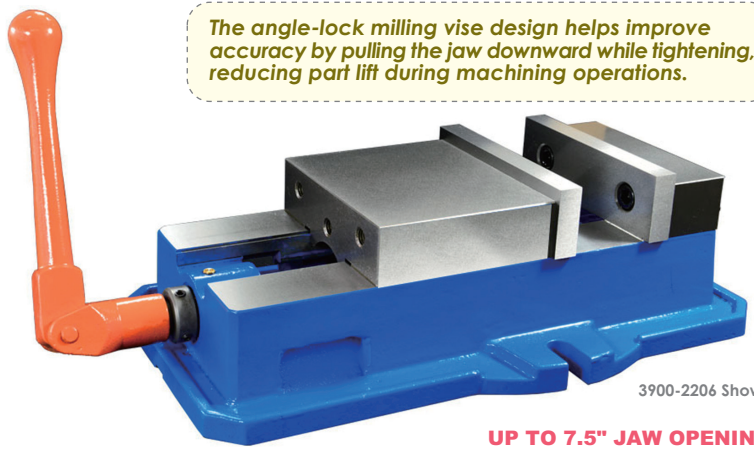
Unit: Inch / mm

Item#	Length L	Height H	Hole Cent to Center HC	Hole Diameter HD	Hole Space HS	Width W
3900-2140	2.83/72	0.87/22	0.49/12.5	M6	1.77/45	2.95/75
3900-2141	3.94/100	1.14/29	0.63/16	M8	2.50/63.5	3.07/78
3900-2142	5.98/152	1.61/41	0.95/23.9	M12	3.87/98.4	4.53/115

Ultra-Series ANGLE-TIGHT POSITIVE-LOCK MILLING VISES

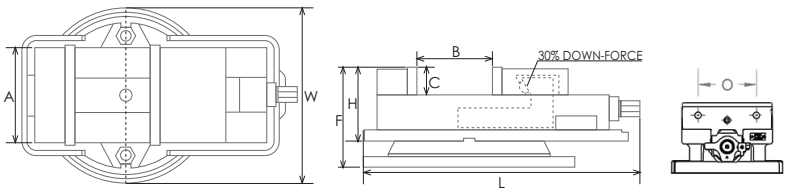
- Angle-tight positive-lock design pulls the movable jaw downward during clamping, reducing jaw lift for improved machining accuracy and repeatable setups.
- Precision-ground vise body and bed surfaces provide excellent alignment and parallelism for milling, drilling, grinding, and precision machining applications.
- Fully enclosed, heat-treated screw system protects internal components from chips and coolant while extending service life in demanding shop environments.
- Hardened and ground jaw plates deliver strong holding power, reduced wear, and consistent clamping performance under heavy cutting loads.
- Interchangeable with American-standard milling vise components, allowing easier replacement of jaws and service parts.
- Rugged cast construction absorbs vibration and improves rigidity for smoother finishes and more accurate machining results.
- Positive-lock mechanism securely holds workpieces during aggressive milling operations, minimizing movement and improving repeatability.
- Optional swivel base allows fast angle positioning and setup flexibility for precision machining applications.
- Ideal for use on manual mills, CNC machining centers, tool rooms, maintenance departments, and production machining environments.
- Suitable for holding flat stock, blocks, plates, and precision-machined parts during milling, drilling, tapping, and grinding operations.

The angle-lock milling vise design helps improve accuracy by pulling the jaw downward while tightening, reducing part lift during machining operations.



3900-2206 Shown

UP TO 7.5" JAW OPENING



Item#	Jaw Width A	Jaw Opening B	Jaw Depth C	(Inch) OAL L	Vise Height H	Height with Base F	W	Jaw Hole Space O	With Swivel Base	Weight (lbs.)
3900-2203	3	3	1.00	11.00	3-5/32	4-9/32	7-9/32	1.772"	Yes	28
3900-2204	4	4	1.20	13.50	3-37/64	5-1/32	9-7/32	2.500"	Yes	52
3900-2205	5	5	1.50	17.30	4-1/16	5-9/16	9-49/64	2.992"	Yes	71
3900-2206	6	7.5	1.95	21.00	4-27/32	----	---	3.874"	No	86

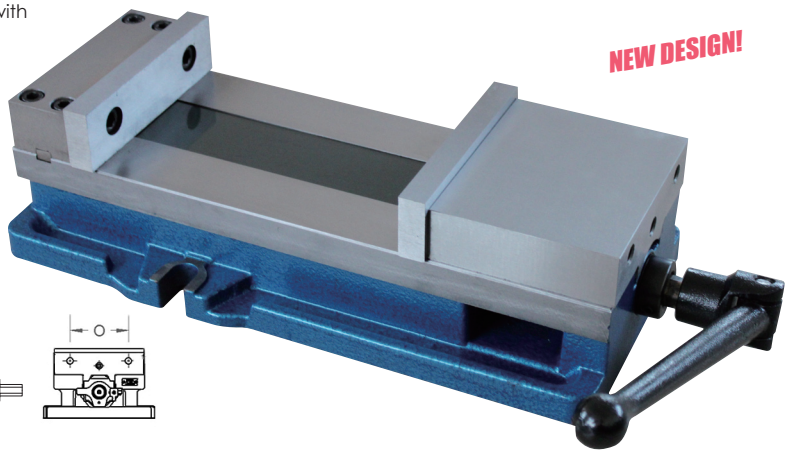
Pro-Series 6" PRECISION MILLING VISE - With 8.6" Jaw Opening

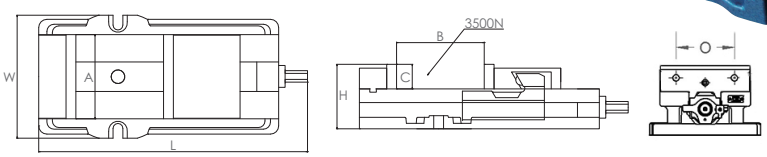
- Precision-ground vise body provides accuracy to .0004" parallelism and .0008" squareness for precise machining and repeatable setups.
- Angle-lock design pulls the movable jaw downward during tightening, reducing jaw lift and improving workpiece stability under heavy cutting loads.
- Extra-large 8.6" jaw opening allows machining of larger parts and wider workpieces without repositioning.
- Hardened and ground vise components resist wear and maintain long-term clamping accuracy in production and toolroom environments.
- Lock-down jaw mechanism securely holds parts in place, helping prevent lifting or movement during milling operations.
- American-standard jaw compatibility allows interchangeability with many common milling vise jaws and replacement parts.
- Heavy-duty cast construction absorbs vibration and improves rigidity for smoother finishes and more consistent machining results.
- Precision screw and nut assembly provide smooth operation and strong clamping pressure for demanding machining applications.
- Optional swivel base enables accurate angle positioning for multi-angle milling, drilling, and setup versatility.
- Ideal for CNC machining centers, manual mills, tool rooms, maintenance shops, and precision metalworking applications.
- Designed for holding blocks, plates, flat stock, and machined components during milling, drilling, tapping, and grinding operations.

6" VISE
3900-2246

OPTIONAL BASE Fits Vise 6"
3900-2236

NEW DESIGN!



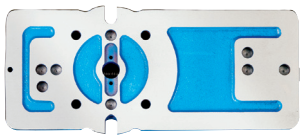


Item#	Jaw Width	Jaw Opening	A	B	C	(Inch) L	W	H	Jaw Hole Space O	Weight (LBS.)
3900-2246	6"	8.6"	6	8.6	1.77	19.5	9.2	4.65	3.874"	75

VERTEX® 6" MILLING VISE – ANGLE LOCK CLAMPING MECHANISM
– COMPATIBLE WITH AMERICAN STANDARD (KURT-STYLE) FOOTPRINT & HEIGHT

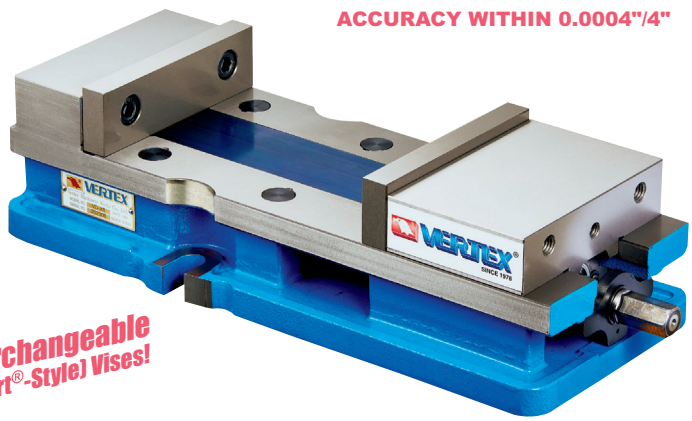
- **Made in Taiwan** – High Quality & Exceptional Value: Precision manufacturing delivers consistent accuracy and durability comparable to premium brands at a more competitive price point.
- Designed to match American standard (Kurt-style) vise dimensions, allowing direct replacement and seamless integration into existing machine setups.
- **American Standard Footprint** – Matches common Kurt-style mounting patterns.
- **Reverse-Action Design** – Clamps from opposite direction for added flexibility.
- **Angle-Locked Clamping System** – Downward jaw movement eliminates lift, improving accuracy and part stability during machining.
- **Super Open Capacity Design** – Extended jaw opening handles larger workpieces while maintaining a compact footprint.
- **Stationary Jaw – Integral Design** – Provides superior rigidity and high resistance to bending and deflection under load.
- **Ductile Iron Construction (FCD60 / 60,000 PSI)** – High tensile strength body ensures durability and long service life in demanding environments.
- **Hardened & Precision Ground Components** – Sliding surfaces hardened and ground for smooth operation, wear resistance, and consistent accuracy.
- **High Clamping Force (Up to 2,500 kgf / 5,500+ lbs)** – Delivers secure, vibration-resistant holding for milling, drilling, and grinding.
- **Fine Thread Screw for Precision Control** – Approx. 0.004" per handle turn allows accurate, repeatable clamping adjustments.
- **Replaceable Hardened Jaws (HRC 54–58)** – Serrated jaws provide strong grip and long wear life.
- **Chip Protection System** – Screw and internal components protected from chips and debris for longer service life.
- **Multi-Position Jaw Mounting** – Four jaw positions increase versatility and expand clamping range.
- **Industry-Standard Compatibility** – Designed to match Kurt® -style mounting for easy integration into existing setups.

*This reverse-action milling vise features our **Tight Lock downward clamping design**, providing strong, anti-lift holding performance during milling operations. Built to **American standard (Kurt-style) dimensions**, it matches the common mounting footprint and overall height of industry-standard vises. This allows direct installation on the same machine table and seamless use in multi-vise setups without shimming or adjustment.*

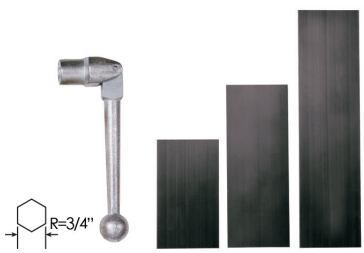


6" VISE ONLY
3900–2251
Weight: 69 Lbs.

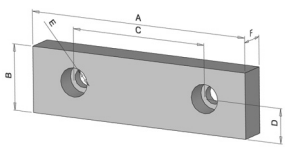
ACCURACY WITHIN 0.0004"/4"



MADE IN TAIWAN



Big 9" Opening + Interchangeable with American Standard (Kurt®-Style) Vises!



INSPECTION	SPECIFICATIONS
Parallelism: table face to bottom of bed	≤0.01/per 100mm
Squareness: between table face and jaw plate	0.02mm
Squareness: keyways on bottom of table face to jaw plate	≤0.02/per 100mm
Parallelism: table face of the the block to bottom of bed	≤0.02/per 100mm

Jaw Dimensions (Inch/mm)

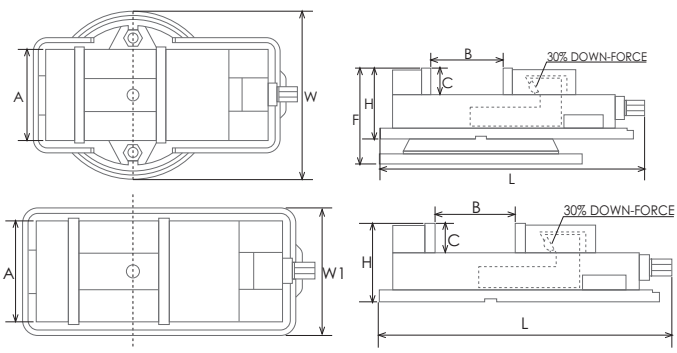
Jaw Width	A	B	C	D	E	F
6"	5.98/151.6	1.74/44.1	3.87/98.4	0.94/23.9	0.55/14	0.72/18.4

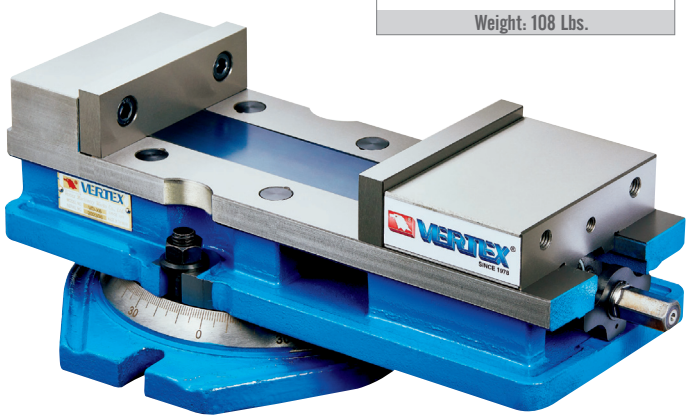
SPECIFICATIONS *Unit: Inch*

Jaw Width A	Jaw Openning B	Jaw Height C	OAL L	Width of Swiv Base W	Width of Vise Base W1	Vise Height H	Height with Base F
6	8.984	1.75	18.72	11.89	7.32	4.00	6.22

LARGE OPENING, COMPACT & HIGH CLAMPING POWER!

6" VISE WITH SWIVEL BASE
3900–2252
Weight: 108 Lbs.



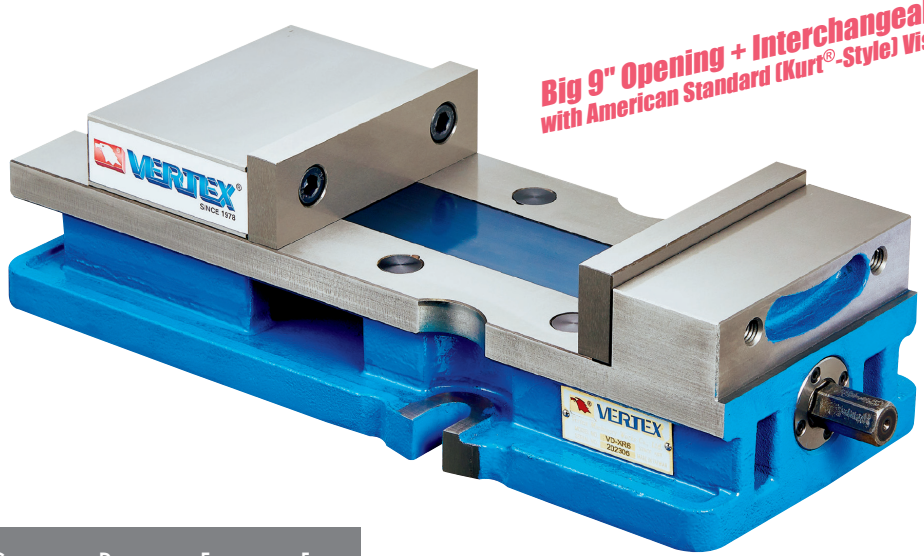


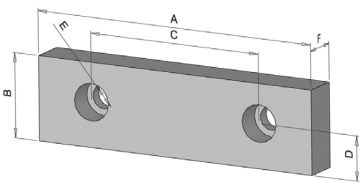
VERTEX® 6" REVERSE - ACTION MILLING VISE - ANGLE LOCK CLAMPING MECHANISM - COMPATIBLE WITH AMERICAN STANDARD (KURT-STYLE) FOOTPRINT & HEIGHT

REVERSE MOVING JAW • SUPER OPEN CAPACITY • AMERICAN STANDARD (KURT®-STYLE) COMPATIBLE

- **Made in Taiwan** – High Quality & Exceptional Value: Precision manufacturing delivers consistent accuracy and durability comparable to premium brands at a more competitive price point.
- **Reverse Moving Jaw Design** – Fixed front jaw with rearward-moving jaw improves rigidity and provides better support for larger workpieces.
- **Super Open 9" Jaw Capacity** – Handles oversized parts while maintaining a compact vise footprint.
- **Angle-Lock Clamping System** – Downward jaw force eliminates lift for improved accuracy and part stability.
- **Kurt® -Style Compatibility** – Interchangeable with American standard vises and components for easy integration and replacement.
- **Ductile Iron Construction (FCD60 / 60,000–80,000 PSI)** – High tensile strength body resists deflection under heavy loads.
- **Hardened & Precision Ground Ways** – Ensures smooth travel, long wear life, and consistent machining accuracy.
- **Accuracy Within 0.01 mm per 100 mm (0.0004" per 4")** – Provides excellent parallelism and repeatability for precision machining applications.
- **High Clamping Force (Up to 2,500 kgf / 5,500+ lbs)** – Secure, vibration-resistant workholding for demanding operations.
- **Fine Adjustment Screw Control** – Approx. 0.004" per turn for precise, repeatable clamping.
- **Replaceable Hardened Jaws (HRC 54+)** – Provides strong grip and extended service life.
- **Chip-Protected Screw System** – Internal components shielded from chips and debris for durability.
- **Four Jaw Mounting Positions** – Expands clamping range and setup flexibility.

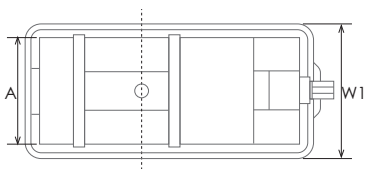
6" VISE
3900-2256
Weight: 69 Lbs.

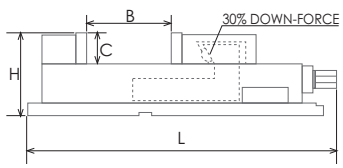




Jaw Dimensions (Inch/mm)

Jaw Width	A	B	C	D	E	F
6"	5.98/151.6	1.74/44.1	3.87/98.4	0.94/23.9	0.55/14	0.72/18.4





ACCURACY WITHIN 0.0004"/4"

MADE IN TAIWAN

SPECIFICATIONS *Unit: Inch*

Jaw Width A	Jaw Openning B	Jaw Height C	OAL L	Base Width W1	OAL Height H
6	9.08	1.735	18.30	7.391	4.61

INSPECTION	SPECIFICATIONS
Parallelism: table face to bottom of bed	≤0.01/per 100mm
Squareness: between table face and jaw plate	0.02mm
Squareness: keyways on bottom of table face to jaw plate	≤0.02/per 100mm
Parallelism: table face of the the block to bottom of bed	≤0.02/per 100mm

VERTEX® 2.36" SELF CENTERING CNC VISE - With Swivel Base

- Suitable for 4/5 axis CNC machines
- Repeat clamping tolerance +/- 0.0004"/0.01mm
- Material: FCD 60, high tension cast iron slide way has hardness of HRC 450
- Interchangeable jaw heat treatment to HRC 55°.
- Lock down force to keep work piece from lifting.
- Swivel base 8" diameter x 22mm thickness
- Clamping Capacity: 1.77~5.51"

Limited Supply!

MADE IN TAIWAN

SWIVEL BASE INCLUDED



Item#	Jaw Width	Jaw Depth	Jaw Openning	Vise Height	OAL	Weight (Lbs.)
3900-2220	2.36"	0.95"	3.94"	3.15 (w/o base)	7.3"	25

VERTEX® 6" MC POWER VISE – 10.8" JAW OPENING

*Ideal for CNC machining centers, vertical mills, production machining, and toolroom work where **strong clamping force, wide opening capacity, and repeatable accuracy** are required.*

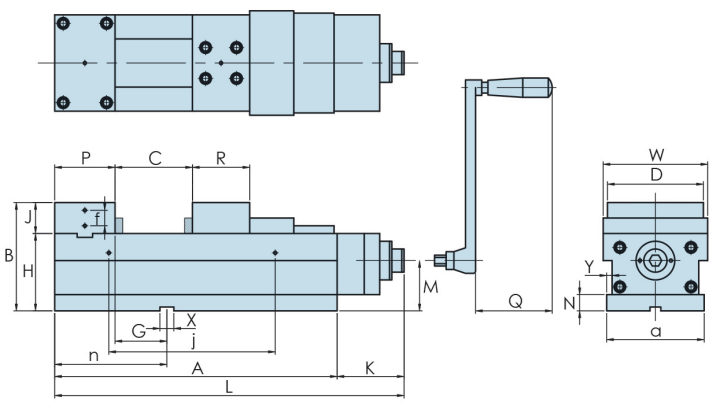
MADE IN TAIWAN

6" Jaw Width
3900-2440
Weight: 152 Lbs.

- **Made in Taiwan** – High Quality & Exceptional Value: Precision manufacturing delivers consistent accuracy and durability comparable to premium brands at a more competitive price
- **Large 10.8" Jaw Opening** – Holds oversized workpieces and longer parts that standard vises cannot accommodate.
- **Heavy-Duty Toggle Joint Mechanism** – Delivers strong, steady clamping pressure while reducing vibration during machining.
- **Lock-Down Design** – Helps prevent jaw lift for improved part stability, better accuracy, and repeatable results.
- **180° Reversible Jaws** – Jaws can be turned to expand holding range and adapt to different workpiece sizes.
- **FC D60 Ductile Cast Iron Body** – High-strength casting resists bending and deflection under heavy loads.
- **Flame Hardened & Ground Slideways** – Smooth operation with excellent wear resistance for long service life.
- **Concealed Spindle Design** – Protects internal screw mechanism from chips, coolant, and dirt.
- **Same Height Guarantee** – Designed for consistant vise height, ideal for multiple-vise setups on machining centers point.



HEAVY DUTY TOGGLE MECHANISM DESIGN!



INSPECTION	SPECIFICATIONS
Parallelism: table face to bottom of bed	≤0.01/per 100mm
Squareness: between table face and jaw plate	0.02mm
Squareness: keyways on bottom of table face to jaw plate	≤0.02/per 100mm
Parallelism: table face of the the block to bottom of bed	≤0.02/per 100mm

SPECIFICATIONS

Unite	Vise Size	Jaw Width D	A	B	Jaw Open C	a	P	R	G	Vise Height H	J	K	OAL L	M	W	Q	N	X	Y	Max. Clamping Force (KN)
INCH	6-1/4	6.28	17.95	6.50	10.83	6.34	3.39	3.39	2.28	4.72	1.77	3.86	21.81	3.08	6.69	3.66	0.83	0.71	0.28	60
MM	160	159.5	456	165	275	161	86	86	58	120	45	98	554	78	170	93	21	18	7	

VERTEX® 6 INCH HYDRAULIC SUPER OPEN VISE – 13.8" JAW OPENING

*Ideal for CNC machining centers, milling machines, drilling, grinding, and precision production work where **large jaw opening, strong clamping force, and accuracy** are required.*

- **Made in Taiwan** – High Quality & Exceptional Value: Precision manufacturing delivers consistent accuracy and durability comparable to premium brands at a more competitive price point.
- **Extra-Wide 13.8" Jaw Opening** – Handles large plates, blocks, and oversized workpieces that standard 6" vises cannot hold.
- **Hydraulic Boost Clamping System** – Delivers powerful clamping force with less handle effort for faster, easier operation.
- **Built-In Power Force Scale** – One-handle operation with visible force indicator helps apply consistent, repeatable clamping pressure.
- **FC D60 High-Strength Ductile Cast Iron Body** – Excellent rigidity and bending resistance for dependable machining accuracy.
- **Flame Hardened & Ground Slideways** – Wear-resistant ways provide smooth jaw travel and long service life.
- **Precision Accuracy** – Parallelism within 0.0004" per 4" for accurate setups and dependable machining results.
- **Compact Low-Profile Design** – Maximizes machine table space while maintaining large capacity.
- **Use Hydraulic Oil #68.**

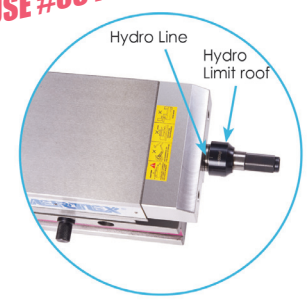
6" VISE
3900-2450
Weight: 162 Lbs.

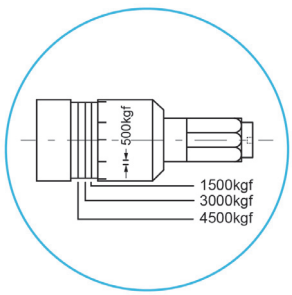
MADE IN TAIWAN

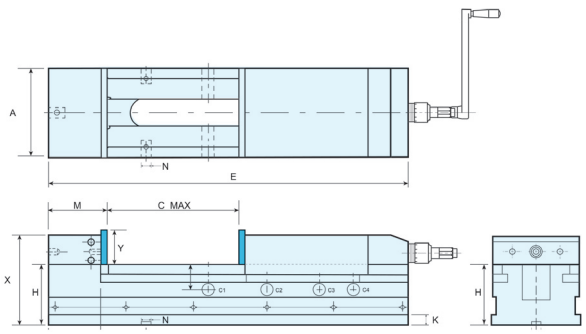
LARGEST OPENING HYDRAULIC VISE !



USE #68 HYDRAULIC OIL.





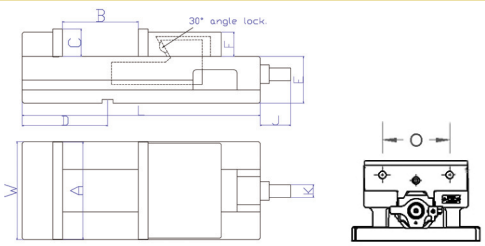


SPECIFICATIONS *Unit: Inch/mm*

Vise Size	Jaw Width A	Max. Jaw Open C	Opening Size for Capacity C1	C2	C3	C4	E	Vise Height H	K	M	N	X	Y	Max. Clamp Force (kgf)
6	6.06"	13.78"	0~3.94"	3.94~7.87"	7.87~11.81"	11.81~13.78"	24.33"	4.13"	0.83"	4.06"	0.71"	6.14"	2.13"	4500
	154mm	350mm	0~100mm	100~200mm	200~300mm	300~350mm	618mm	105mm	21mm	103mm	18mm	156mm	54mm	

SUPER-LOCK VISE FOR NC/CNC MACHINES

- Lock down type.
- Ideal for all types of milling, grinding, drilling and tapping application in multiple vise set-ups.
- **Flatness of all sides to .001" guaranteed.**
- Mounting in 3 modes: upright, left and right side.
- **Both sides parallel to each other to .0005" per 4".**
- Up to 3000 N clamping force.





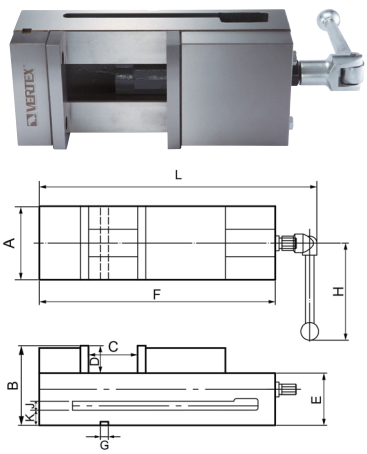
Item#	Jaw Width (inch/mm)	A	B	C	D	(Inch) E	F	J	K	L	Base W	Jaw Hole Space O	Weight Lbs.
3900-0170	3.15/80	3.15	3.15	0.94	3.15	1.97	0.87	1.22	0.44	8.27	3.18	1.77	18
3900-1719	3.94/100	3.94	4.15	1.26	4.05	2.36	1.14	1.34	1.44	10.43	3.97	2.50	23
3900-0171	4.92/125	4.92	5.10	1.57	3.93	2.52	1.47	1.42	0.55	11.85	4.96	2.99	40
3900-0172	6.30/160	6.30	7.32	1.73	5.51	3.03	1.65	1.93	0.75	15.39	6.33	3.88	64

VERTEX® LOCK-FIXED II PRECISION MACHINE VISES FOR NC/CNC MACHINES

LOCK-DOWN DESIGN • HIGH ACCURACY • MULTI-VISE CAPABILITY

- **Made in Taiwan** – High Quality & Exceptional Value: Precision manufacturing delivers consistent accuracy and durability comparable to premium brands at a more competitive price point.
- **Lock-Fixed (Downward Force) Design** – Horizontal clamping force drives the movable jaw downward, eliminating jaw lift and improving machining accuracy.
- **High Precision Grinding on All Surfaces** – Ensures excellent flatness, squareness, and parallelism for repeatable, high-accuracy results.
- **Accuracy Within 0.01 mm (0.0005") per 4"** – Maintains tight tolerances for precision CNC and toolroom applications.
- **Flatness on All Sides** - to 0.001" guaranteed
- **No Hammering Required** – Semi-sphere segment design allows smooth clamping without striking the handle.
- **Rigid, Hardened Construction** – Built for durability and resistance to deflection in demanding machining environments.
- **Multi-Vise Setup Capability** – Designed for side-by-side mounting; maintains same height for aligned synchronized machining operations.
- **Three-Side Mounting Flexibility** – Can be mounted upright, left, or right to suit different setups and machine configurations.
- **Compact, Low-Profile Design** – Maximizes machine travel and workspace efficiency.
- **Ideal for CNC Machining** – Designed for milling, drilling, grinding, and tapping in production environments.





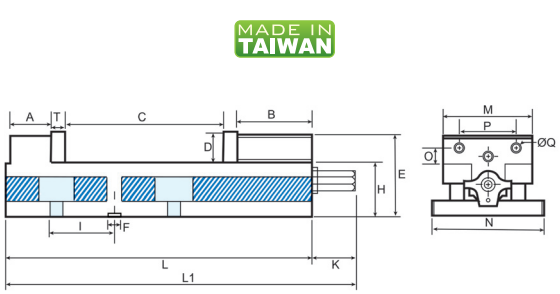
Unit: Inch/mm

Item#	Vise Size	Jaw Width A	B	Jaw Openning C	D	E	F	G	OAL L	H	J	K	Jaw Hole Space	Max. Clamp Force (kgf)	Weight Lbs.
3900-2230	4"	4.25/108	3.94/100	4.06/103	1.42/36	2.48/63	11.42/290	0.63/16	14.72/374	7.95/202	0.59/15	0.82/21	2.76/70	1500	31
3900-2232	6"	6.14/156	4.72/120	5.91/150	1.81/46	2.91/74	14.57/370	0.63/16	18.58/472	8.70/221	0.63/16	0.59/15	3.82/97	2500	66

VERTEX® 6" ANGLE-LOCK CLAMPING MECHANISM VERSATILE CNC VISE - WITHOUT BASE

- **Made in Taiwan** – High Quality & Exceptional Value: Precision manufacturing delivers consistent accuracy and durability comparable to premium brands at a more competitive price point.
- **Angle-Lock Clamping Design** - pulls the movable jaw downward during tightening to reduce jaw lift and keep workpieces seated firmly for higher machining accuracy.
- **Precision Ground Sliding Ways** - are hardened and ground for long service life, smooth movement, and repeatable positioning.
- **Same-Height Jaw System** - ensures both jaws align evenly, making side-by-side setups faster and helping maintain consistent part location.
- **Heavy-Duty Ductile Iron Body** - resists deflection under heavy cuts for better rigidity, improved finishes, and longer tool life.
- **Versatile Mounting Capabilityis** - suitable for CNC machining centers, vertical mills, horizontal mills, and fixture applications.
- **High Clamping Force** - provides secure holding power for roughing or finishing operations.
- **Close Tolerance Accuracy** - rated within 0.0004" per 4" for dependable precision work.
- **Chip-Resistant Design** - helps protect the screw and internal mechanism for reduced maintenance.
- **Flatness of All Sides** - to 0.001" per 4".

6" VISE
3900-2258
Weight: 68 Lbs.





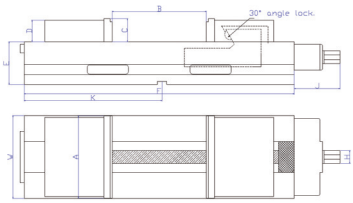
SPECIFICATIONS

Unit: mm

Jaw Width M	A	B	JAW OPEN C	D	E	F	G	H	I	J	K	L	OAL L1	M	N	O	Jaw Hole Space P	S	T	U	V	Max. Clamp Force (Lbs)
6"	2.75	4.50	6.50	1.77	4.69	0.71	5.00	3.187	2.75	4.25	1.84	15.16	17.00	1.51	6.00	0.937	3.875	5.00	0.71	2.00	0.625	6350

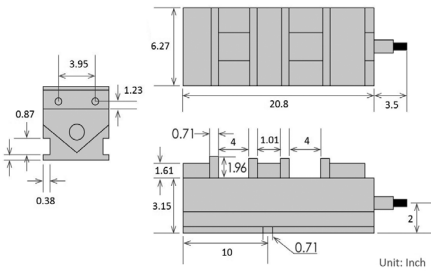
TWIN - LOCK PRECISION CNC MILLING VISES - Self Centering

- Precision clamping force per jaw set.
- Precision ground on all sides, can be mounted vertically or horizontally.
- Bed hardened to RC 45 or higher to resist wear.
- Reversible hardened jaw plates for standard or, stepped part holding.
- Reduces the tool changes per job by 50%.
- Uses the same machine space as conventional vises limited to half the part holding capacity.
- Top mounted center block can be removed easily for larger parts application.



Data Without Center Jaw

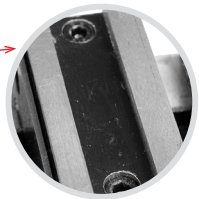
Item#	Jaw Width	(Inch) A	B	Wt. Lbs.
3900-1722	3.94/100mm	3.94	7.87	36
3900-0173	6.30/160mm	6.30	10.43	95

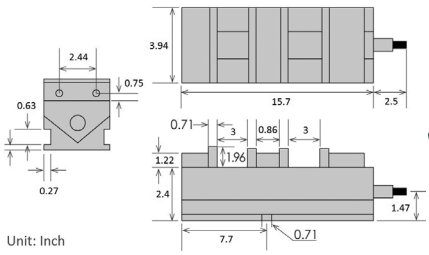


HANDLE HEX SIZE: 3/4"

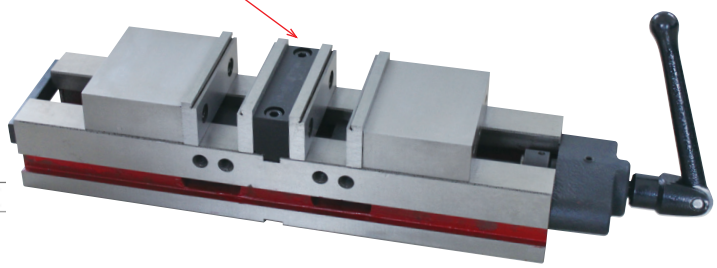
4" Jaw Width
3900-1722
Weight: 45 Lbs.

Top Mount Removable Jaw





HANDLE HEX SIZE: 9/16"

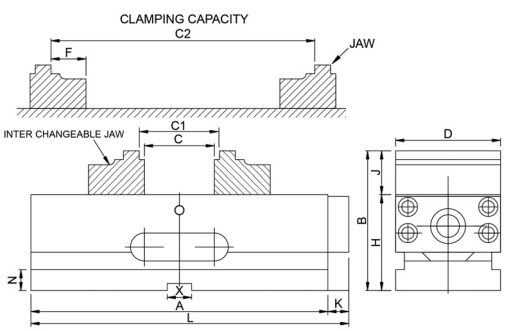


6" Jaw Width
3900-0173
Weight: 109 Lbs.

VERTEX® SELF-CENTERING PRECISION CNC VISES (4/5 AXIS READY)

SELF-CENTERING • SAME HEIGHT GUARANTEE • HIGH ACCURACY WORKHOLDING

- **Made in Taiwan** – High Quality & Exceptional Value: Precision manufacturing delivers consistent accuracy and durability comparable to premium brands at a more competitive price
- **Self-Centering Clamping System** – Both jaws move simultaneously to center the workpiece automatically, reducing setup time and improving accuracy.
- **Same Height Guarantee** – Designed for consistent height across multiple vises, ideal for multi-vise CNC setups and repeat production work.
- **4/5 Axis Machine Compatible** – Compact, rigid design optimized for multi-axis machining applications.
- **Lock-Down Clamping Design** – Downward clamping force prevents part lift, ensuring stable and precise machining.
- **Repeat Clamping Accuracy ±0.01 mm (0.0004")** – Maintains tight tolerances for high-precision applications.
- **Interchangeable Jaw System (HRC 45+)** – Flexible jaw configuration for different workholding needs and extended service life.
- **Reversible Jaw Design** – Easily reposition jaws to expand clamping range and accommodate various part sizes.
- **Hardened & Ground Slideways (HRC 45°)** – Provides smooth motion, wear resistance, and long-term accuracy.
- **High Tensile Cast Iron Body (FCD60)** – Rigid construction resists deflection under load for consistent machining performance.
- **Easy Jaw Reinstallation** – Simple 4-screw removal system allows quick jaw changes and setup flexibilitypoint.





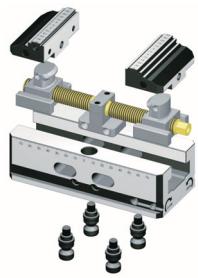
Item#	Jaw Width D	Jaw Depth J	Jaw Open C	Vise Height B	OAL L	Max. Clamping C1	Clamping Range For C2	Max. Clamping Force	Torque For Clamping	A	F	H	K	N	X	Weight
3900-2215	3.19"	1.18"	4.72"	3.35"	8.35"	4.96"	1.89~6.54"	1000 kgf	2.6m/kgf	7.87"	0.91"	2.17"	0.47"	0.55"	0.55"	18 lbs.
3900-2216	3.98"	1.57"	5.20"	4.72"	10.24"	5.51"	2.44~7.56"	400 kgf	2.6m/kgf	9.45"	1.18"	3.15"	0.63"	0.83"	0.79"	41 lbs.

ZERO-POINT VISE SYSTEM (52mm Pin Spacing) WITH QUICK CHANGE REVERSIBLE JAWS

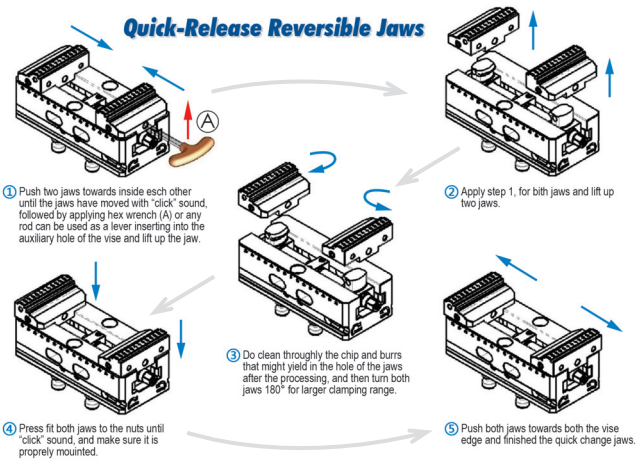
MADE IN TAIWAN

- Zero Point Vise Workholding System Enables All-Directional Clamping
- The Vise can lock and unlock pins with 180-degree rotation. Omni-directional clamping is used for uniformity while performing all-directional clamping.
- The Zero-Point Vise system can interface with industry-standard products using 52-mm pin spacing, and it enables self-centering operations for five-axis machines. The device has fully protected and sealed lead screws and incorporates angle lock mechanism to prevent workpiece lifting when locked.
- The pin-locking mechanism consists of a cam that is operated using an eccentric pin. The cam can lock all four pins simultaneously for enhanced precision and clamping performance. The force vector transmission system can act by binding the pins uniformly and in all directions.
- Additional features include: high-precision self-centering clamping with maximum repeatability, compact design for ease of accessibility, wide clamping range, clamping force up to 14 kN and jaw width of 75mm with hardened serrated teeth.
- The 5-Axis Vise can be mounted on the clamping bars of the quick clamping system with absolute flexibility and positional accuracy. Thanks to the dovetail guide and the pull-down principle, the connection between the clamping bar and the vise is extremely robust. The quick clamping system defies even the highest cutting forces and thus proves its extraordinary stability and load capacity.

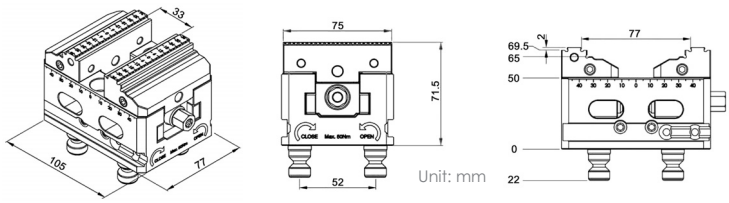
75mm Jaws
52mm Zero-point
3900-2237







Requires 12mm Socket



SPECIAL FEATURES:

- *Quick reversable jaws changes with pattended design.*
- *Special swing 1.50° design "\ /" on one side of clamping jaw for better gripping when workpiece is non-parallel.*

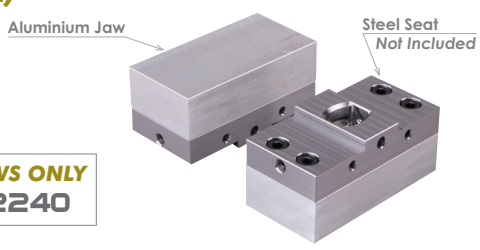
SPECIFICATIONS	
Body Length	4.13"/105mm
Clamping Range	0~3.03"/0~77mm
Jaw Width	2.95"/75mm
Zero-point System (Zero-point Bolt pattern)	2.05"/52mm
Zero-point Stud Diameter	0.63"/16mm
Tightening Torque	70Nm
Clamping Force	14kN
Centering Accuracy	0.0002"/0.005mm
Weight	7.3 Lbs./3.3 Kg

OPTIONAL REPLACEMENT ZERO-POINT STUDS (4 PCS/SET)

16MM, 4 PCS SET
3900-2238



OPTIONAL SOFT JAWS (ALUMINIUM) (SOLD BY PAIR)



PAIR OF JAWS ONLY
3900-2240

OPTIONAL SOFT JAWS (ALUMINIUM) & SEATS (STEEL) (4 PC/SET)

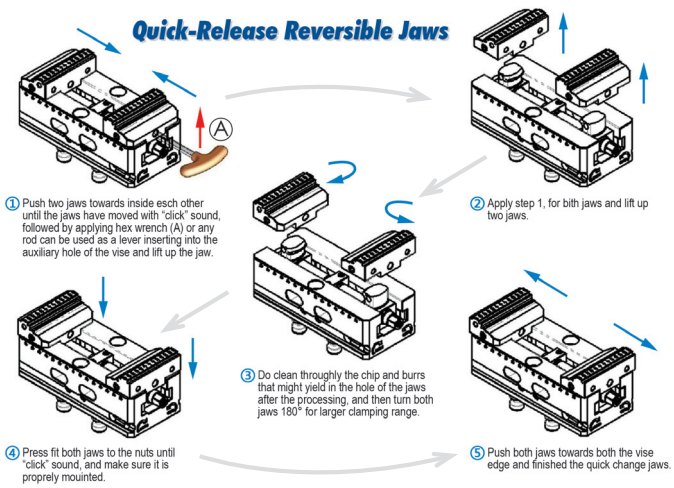


PAIR OF JAWS & SEATS
3900-2241

ZERO-POINT VISE SYSTEM (96mm Pin Spacing) WITH QUICK CHANGE REVERSIBLE JAWS

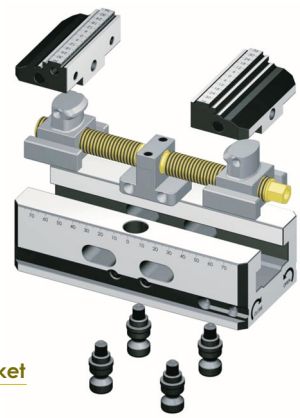
MADE IN TAIWAN

- Zero Point Vise Workholding System Enables All-Directional Clamping
- The Vise can lock and unlock pins with 180-degree rotation. Omni-directional clamping is used for uniformity while performing all-directional clamping.
- The Zero-Point Vise system can interface with industry-standard products using 96-mm pin spacing, and it enables self-centering operations for five-axis machines. The device has fully protected and sealed lead screws and incorporates angle lock mechanism to prevent workpiece lifting when locked.
- The pin-locking mechanism consists of a cam that is operated using an eccentric pin. The cam can lock all four pins simultaneously for enhanced precision and clamping performance. The force vector transmission system can act by binding the pins uniformly and in all directions.
- Additional features include: high-precision self-centering clamping with maximum repeatability, compact design for ease of accessibility, wide clamping range, clamping force up to 14 kN and jaw width of 75mm with hardened serrated teeth.
- The 5-Axis Vise can be mounted on the clamping bars of the quick clamping system with absolute flexibility and positional accuracy. Thanks to the dovetail guide and the pull-down principle, the connection between the clamping bar and the vise is extremely robust. The quick clamping system defies even the highest cutting forces and thus proves its extraordinary stability and load capacity.

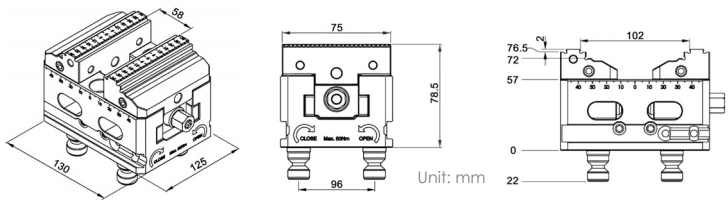




75mm Jaws
96mm Zero-point
3900-2239



Requires 12mm Socket



SPECIAL FEATURES:

- *Quick reversable jaws changes with pattended design.*
- *Special swing 1.50° design "\ /" on one side of clamping jaw for better gripping when workpiece is non-parallel.*

SPECIFICATIONS	
Body Length	5.12"/130mm
Clamping Range	0~4"/0~102mm
Jaw Width	2.95"/75mm
Zero-point System (Zero-point Bolt pattern)	3.78"/96mm
Zero-point Stud Diameter	0.79"/20mm
Tightening Torque	70Nm
Clamping Force	14kN
Centering Accuracy	0.0002"/0.005mm
Weight	14.7 Lbs./6.7 Kg

OPTIONAL REPLACEMENT ZERO-POINT STUDS (4 PCS/SET)



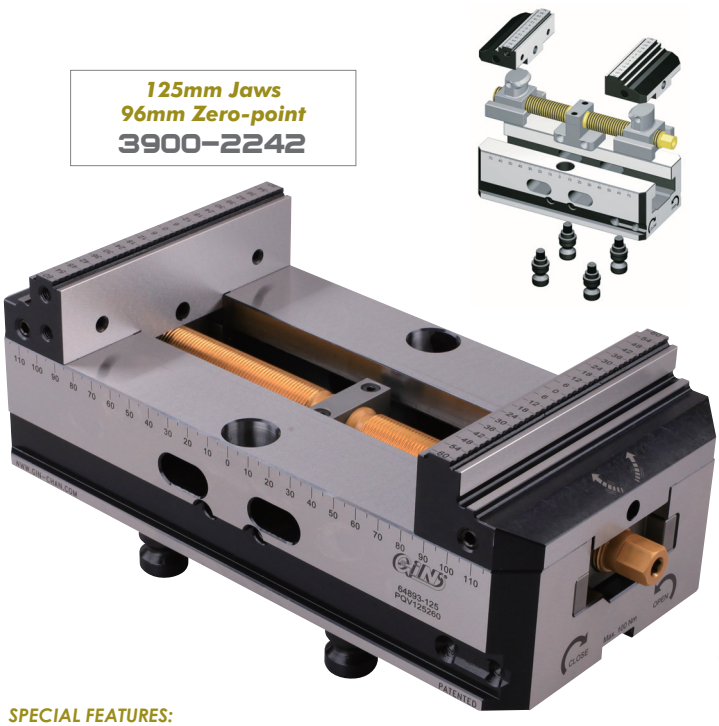
20mm, 4 PCS SET
3900-2249

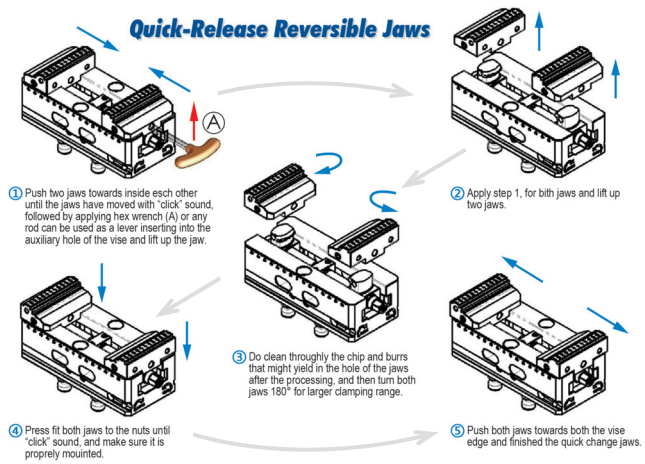
ZERO-POINT VISE SYSTEM (96mm Pin Spacing) WITH QUICK CHANGE REVERSIBLE JAWS

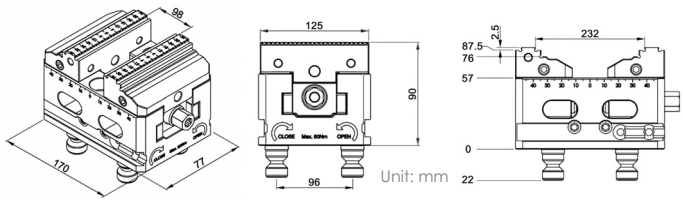
MADE IN TAIWAN

- Zero Point Vise Workholding System Enables All-Directional Clamping
- The Vise can lock and unlock pins with 180-degree rotation. Omni-directional clamping is used for uniformity while performing all-directional clamping.
- The Zero-Point Vise system can interface with industry-standard products using 96-mm pin spacing, and it enables self-centering operations for five-axis machines. The device has fully protected and sealed lead screws and incorporates angle lock mechanism to prevent workpiece lifting when locked.
- The pin-locking mechanism consists of a cam that is operated using an eccentric pin. The cam can lock all four pins simultaneously for enhanced precision and clamping performance. The force vector transmission system can act by binding the pins uniformly and in all directions.
- Additional features include: high-precision self-centering clamping with maximum repeatability, compact design for ease of accessibility, wide clamping range, clamping force up to 16 kN and jaw width of 125mm
- The 5-Axis Vise can be mounted on the clamping bars of the quick clamping system with absolute flexibility and positional accuracy. Thanks to the dovetail guide and the pull-down principle, the connection between the clamping bar and the vise is extremely robust. The quick clamping system defies even the highest cutting forces and thus proves its extraordinary stability and load capacity.

125mm Jaws
96mm Zero-point
3900-2242







SPECIAL FEATURES:

- *Quick reversable jaws changes with pattended design.*
- *Special swing 1.50° design "↖↗" on one side of clamping jaw for better gripping when workpiece is non-parallel.*

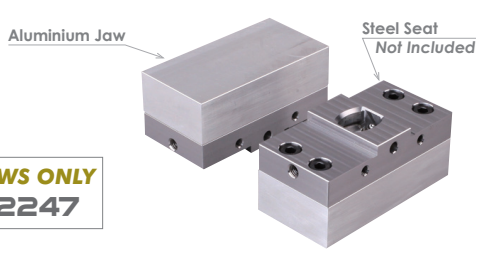
SPECIFICATIONS	
Body Length	10.24"/260mm
Clamping Range	0~9.13"/0~232mm
Jaw Width	4.92"/125mm
Zero-point System (Zero-point Bolt pattern)	3.78"/96mm
Zero-point Stud Diameter	0.79"/20mm
Tightening Torque	100Nm
Clamping Force	16kN
Centering Accuracy	0.0002"/0.005mm
Weight	30.4 Lbs./13.8 Kg

OPTIONAL REPLACEMENT ZERO-POINT STUDS (4 PCS/SET)

20mm, 4 PCS SET
3900-2249



OPTIONAL SOFT JAWS (ALUMINIUM) (SOLD BY PAIR)



PAIR OF JAWS ONLY
3900-2247

OPTIONAL SOFT JAWS (ALUMINIUM) & SEATS (STEEL) (4 PC/SET)



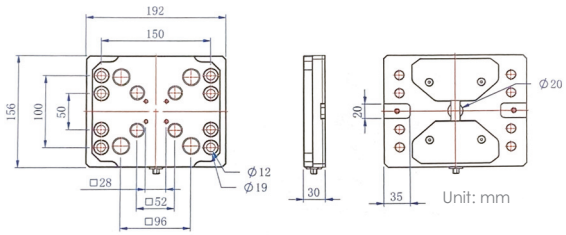
PAIR OF JAWS & SEATS
3900-2248

ZERO POINT VISE SYSTEM PLATE 96/52MM

- Zero-point system plates are used in machine tool positioning and clamping systems, and have many features, including:
  - -**Repeatability:** less than 0.005 mm
  - -**Accuracy:** a high degree of accuracy
  - -**Modularity:** can be modular, allowing for the addition of more plates or the use of different grid dimensions
  - -**Ease of use:** with simple mechanical operation
  - -**Maintenance:** maintenance-free
  - -**Expansion:** can have expansion modules for 5-axis machining
  - -Suitable for tombstone on horizontal machining center.
  - -Higher locking force.
- Size: 192X165X30mm
- Material: Steel (S)
- Compatible with Zero-Point system with 96/52mm pin spacing.



SPECIFICATIONS	
Dimensions	192x156x30mm/7.56x6.14x1.18"
Zero-Point System	96/52mm(3.78/2.05")
Zero-Point Stud Diameter	20mm(0.79")/16mm(0.63")
Max. Tightening Torque	40Nm
Holding Force (4 studs)	60kN
Accuracy	0.005mm/0.0002"
Weight	12.1 Lbs./5.5 Kg



MADE IN TAIWAN

96/52mm Zero-point
3900-2244

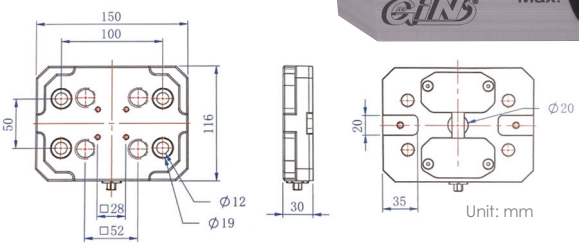
ZERO POINT VISE SYSTEM PLATE 52MM

- Size: 150x116x30mm
- Suitable for tombstone on horizontal machining center.
- Compatible with Zero-Point syetem with 52mm pin spacing.
- Material: Steel (S)
- Higher locking force

MADE IN TAIWAN



SPECIFICATIONS	
Dimensions	150x116x30mm/5.91x4.57x1.18"
Zero-Point System	52mm(2.05")
Zero-Point Stud Diameter	16mm(0.63")
Max. Tightening Torque	45Nm
Holding Force (4 studs)	60kN
Accuracy	0.005mm/0.0002"
Weight	6.4 Lbs./2.9 Kg



52mm Zero-point
3900-2243

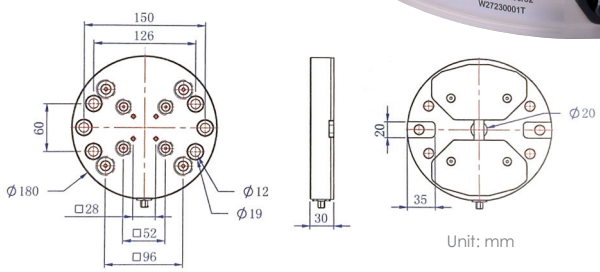
ZERO POINT VISE SYSTEM ROUND PLATE 96/52MM

- Size: 180 diameter x 30mm
- Suitable for tombstone on horizontal machining center.
- Compatible with Zero-Point syetem with 96/52mm pin spacing.
- Material: Steel (S)
- Higher locking force

MADE IN TAIWAN



SPECIFICATIONS	
Dimensions	180 dia.x30mm/7.09 dia.x1.18"
Zero-Point System	96/52mm(3.78/2.05")
Zero-Point Stud Diameter	20mm(0.79")/16mm(0.63")
Max. Tightening Torque	45Nm
Holding Force (4 studs)	60kN
Accuracy	0.005mm/0.0002"
Weight	10.4 Lbs./4.7 Kg

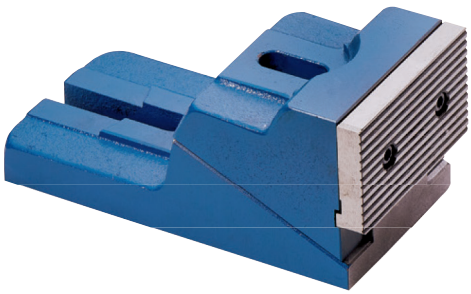


96/52mm Zero-point
3900-2245

VERTEX® 2 PC. 5" QUICK CLAMP MILL VISE

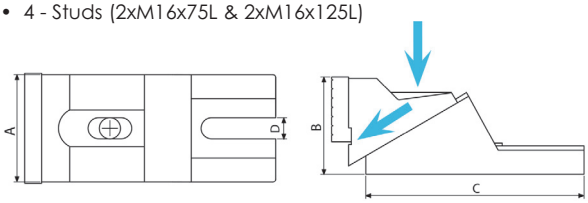
- **Made in Taiwan** – High Quality & Exceptional Value: Precision manufacturing delivers consistent accuracy and durability comparable to premium brands at a more competitive price point.
- **Free-Style Clamping Design** – Allows flexible positioning for large or irregular workpieces that won't fit in standard vises.
- **Quick Clamp Operation** – Fast setup and repositioning reduces downtime and improves shop efficiency.
- **15mm Fine Adjustment Travel** – Provides precise clamping control for improved accuracy and repeatability.
- **Lightweight, Low-Profile Construction** – Easy to handle and position while maintaining solid workholding capability.
- **High Clamping Force (900 kgf)** – Delivers secure holding for milling, drilling, and light machining operations

MADE IN TAIWAN





Accessories Included:
- 4 - T-Slot Nuts
- 4 - Flanged Nuts
- 2 - Washers
- 4 - Studs (2xM16x75L & 2xM16x125L)



LIGHT DUTY

Item#	Jaw Width (A)	Vise Height (B)	Vise Base length (C)	Clamping Capacity	Max. Clamping Force (kgf)	Weight
3900-1736	4.92"/125mm	4.72"/120mm	9.84"/250mm	10" Height/21" Length	900	53 lbs

VERTEX® 2 PC. 5" HEAVY DUTY QUICK CLAMP MILL VISE

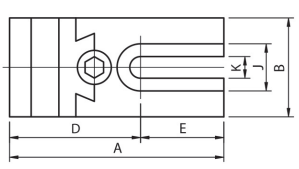
- **Made in Taiwan** – High Quality & Exceptional Value: Precision manufacturing delivers consistent accuracy and durability comparable to premium brands at a more competitive price point.
- **Free-Style 2-Piece Clamping Design** – Allows flexible positioning for large, long, or irregular workpieces that standard vises cannot accommodate.
- **Heavy-Duty Construction** – Built for increased rigidity and strength, making it ideal for demanding machining applications.
- **Quick Clamp with 10mm Fine Adjustment** – Enables fast setup with precise clamping control for improved accuracy and repeatability.
- **High Clamping Force (1800 kgf)** – Provides strong, secure holding for milling, drilling, and heavier machining operations.
- **Independent Jaw Positioning** – Each jaw can be positioned separately to support oversized or odd-shaped parts.
- **Low Profile, Wide Base Design** – Improves stability while allowing better access to the workpiece during machining.

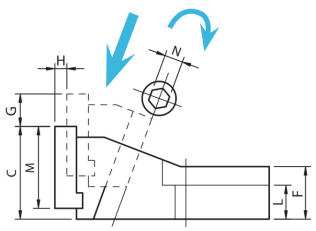




Accessories Included:
- 4 - T-Slot Nuts
- 4 - Flanged Nuts
- 4 - Washers
- 4 - Studs (M16x75L)
- 1 - Hex key wrench

MADE IN TAIWAN





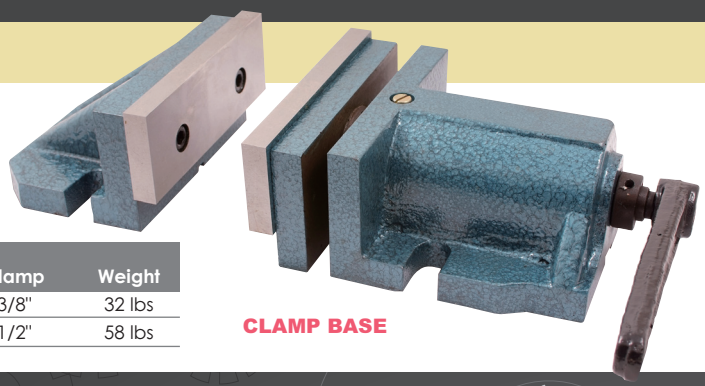
Unit: mm

Item#	Jaw Width (B)	Vise Height (C)	Vise Base length (A)	D	E	F	G	H	J	K	L	M	N	Max. Clamping Force (kgf)	Weight
3900-1738	5.0"/127mm	3.31"/84mm	8.58"/218mm	124	94	51.5	33	18	45.5	20	23.5	73	12	1800	53 lbs

MACHINE VISES

2 PC QUICK CLAMP MILL VISES

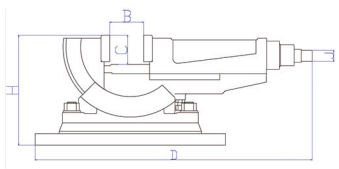
- Work locates directly on bed for rigidity
- Mechanical type, actuated by Acme screw riding in bronze nut and guided by two H&G pins
- Quarter-turn handle clamps work firm enough for heaviest cuts
- Vise handle included

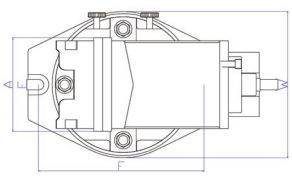


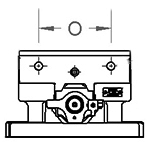
Item#	Jaw Width	Depth of Jaws	Key Slot Width	Min. T-Slot	Clamp	Weight
3900-1726	6"	3"	11/16"	2-1/4~2-3/4"	3/8"	32 lbs
3900-1728	8"	4"	13/16"	2-3/4~3-3/4"	1/2"	58 lbs

2-WAY SWIVEL MOVEMENT ANGLE VISES

- Positive locking to withstand heavy loads.
- Horizontal swivel movement 360°.
- Vertical swivel movement 90°.
- Totally enclosed acme thread screw.
- Hardened and ground jaws.
- Vises supplied with plain jaws.
- Base T-slot width: 0.71"
- Vise handle included.









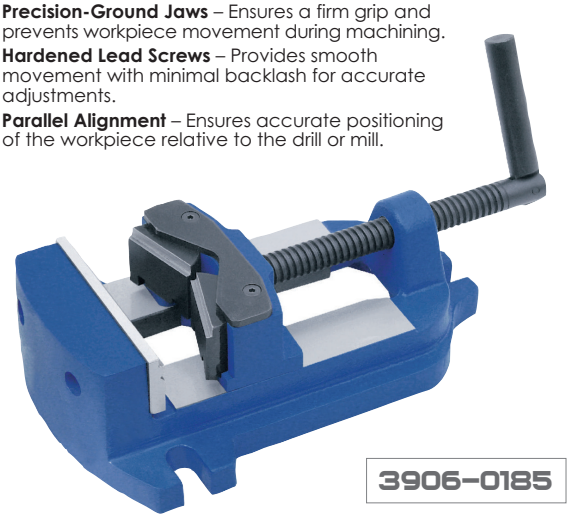
Item#	Jaw Width	A	B	C	(Inch) D	E	F	J	W	H	Jaw Hole O	Weight Lbs.
3900-0018	3.94/100mm	3.94	3.15	1.69	15.55	0.55	8.78	0.55	7.24	6.18	**2.36**	54
3900-0015*	4.92/125mm	4.92	3.94	1.81	18.89	0.55	9.96	0.67	8.78	6.73	**3.15**	61
3900-0019	6.30/160mm	6.30	4.92	1.97	21.85	0.71	11.34	0.67	10.04	7.48	**2.76**	89

* Limited Supply

Pro-Series 5" MOVABLE JAW DRILL/MILL VISE

The Movable Jaw Drill/Mill Vise is designed for precision work in drilling and milling operations.

- **Movable Jaw Design** – The adjustable jaw provides flexibility in clamping different-sized and shaped workpieces securely.
- **Heavy-Duty Construction** – Made from high-quality top grade stress relieved casting for durability and stability. All surfaces are hardened and ground.
- **Precision-Ground Jaws** – Ensures a firm grip and prevents workpiece movement during machining.
- **Hardened Lead Screws** – Provides smooth movement with minimal backlash for accurate adjustments.
- **Parallel Alignment** – Ensures accurate positioning of the workpiece relative to the drill or mill.



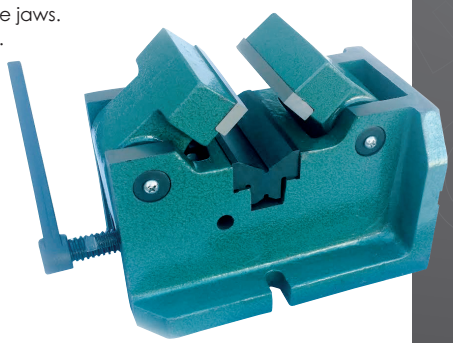
3906-0185

Jaw Width	Jaw Opening	Jaw Depth	Base Length	Overall Length	Overall Width	Height	Net Wt. lbs
5"	4-5/8	1-5/8	10-1/2	11	7-1/8	3-1/8	15

HORIZONTAL/VERTICLE MACHINE VISE - for Holding Shafts and Round Parts

- 4" wide hardened steel replaceable jaws.
- Capacity 3/8" to 2-1/2" round parts.
- Work rests on V-block made of hardened and ground tool steel.
- Adjustable sliding rod to set work in proper position.
- Vise ends are ground so that it can be used vertically or horizontally.

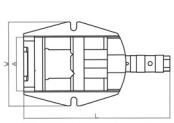
4 INCH
3900-1720
Weight: 50 Lbs.

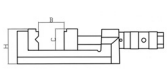


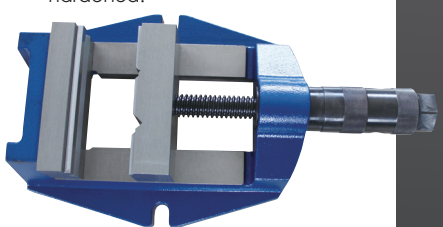
Pro-Series 5" SUPER DUTY DRILL/MILL VISE

- Made of top grade strong stress relieved casting.
- Quick action handle with hex end for strong force tightening.
- Grooved jaws.
- All working surfaces are ground and hardened.

Limited Supply!







Unit: mm

Jaw Width A	Jaw Opening B	Jaw Depth C	OAL L	Base Width W	Height H	Wt. (Lbs.)
125	90	50	350	200	82	23

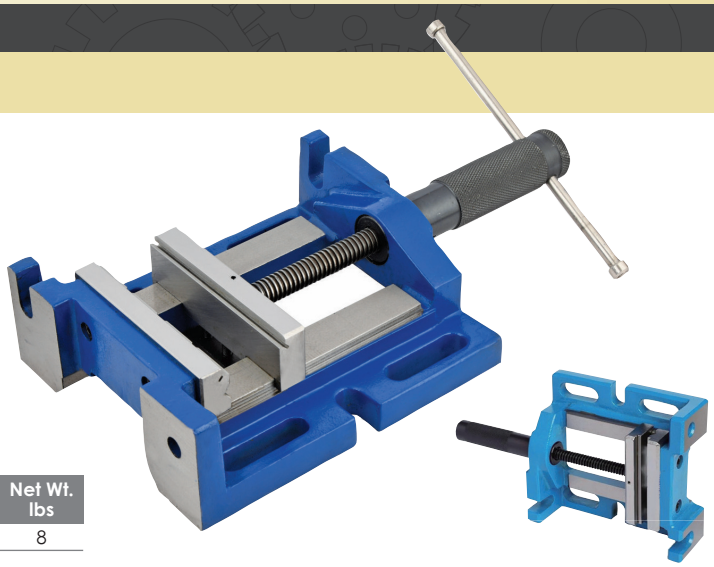
3900-0180

Pro-Series 3" 3-WAY DRILL/MILL VISE

The Pro-Series 3-Way Drill/Mill Vise is designed for precision milling, drilling, and grinding applications.

- **Three-Way Adjustability** – Allows movement along the X, Y, and Z axes for precise positioning of workpieces. Fully ground.
- **Heavy-Duty Construction** – Made from high-quality top grade stress relieved casting for durability and stability.
- **Precision-Ground Jaws** – Fixed grooved jaws ensures a secure grip and minimizes workpiece movement.
- **Hardened Lead Screws** – Provides smooth, accurate movement with minimal backlash.
- **Versatile Applications** – Ideal for milling machines, drill presses, and grinders.

3906-0183



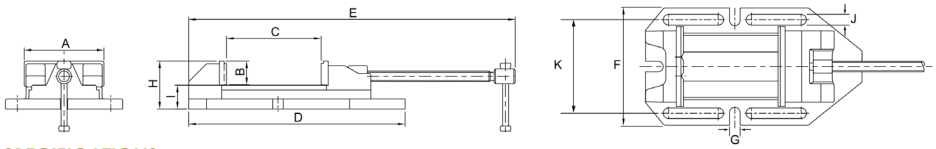
SPECIFICATIONS

Jaw Width	Jaw Opening	Jaw Depth	Base Length	Overall Length	Overall Width	Height	Net Wt. lbs
3"	3-1/8	1-3/16	6-1/4	9-1/8	5-5/8	2-7/16	8

VERTEX® 4" EURO-TYPE SUPER OPEN WORKHOLDING VISE



- **Made in Taiwan** – High Quality & Exceptional Value: Precision manufacturing delivers consistent accuracy and durability comparable to premium brands at a more competitive price point.
- **Extra-Wide Jaw Opening (5.04")** – Handles larger workpieces for increased versatility in drilling and milling applications
- **High Clamping Force (992 lbs.)** – Provides strong, secure holding for improved machining accuracy and safety
- **Prismatic Jaw Design** – V-groove jaws securely hold round stock, preventing movement during operations
- **Precision Machined Guideways** – Ensures smooth jaw travel and consistent alignment for repeatable results
- **Heavy-Duty Cast Construction** – Reduces vibration and enhances stability for better surface finish
- **Euro-Type Compact Base** – Optimized footprint with slotted base for easy mounting and positioning on machine tables



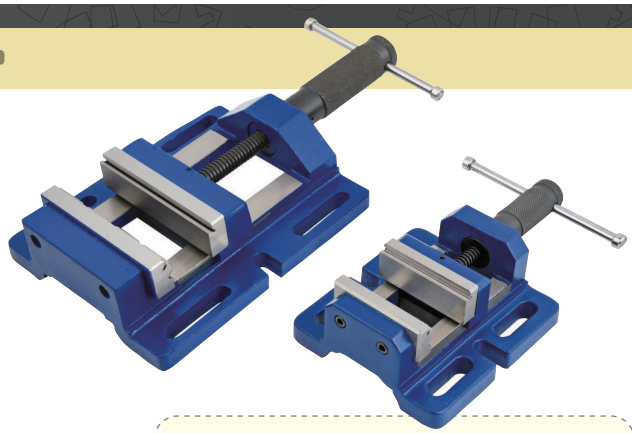
3900-0188
Weight: 22 Lbs.

SPECIFICATIONS *Unit: Inch/mm*

Jaw Width A	Jaw Opening C	Jaw Depth B	Base length D	OAL E	Base Width F	Slot Width G	Body Height H	I	J	K	Max. Clamp Force (Lbs/kgf)
4.33/110	5.04/128	1.24/32	12.44/316	18.54/471	6.97/177	0.63/16	2.87/73	1.57/40	0.63/16	5.67/144	992/450

Pro-Series LOW PROFILE DRILL PRESS VISES - UNIGRIP

- High-quality cast iron for durability and stability.
- Precision-machined surfaces for accurate alignment on the drill press table.
- Compact height allows for greater drill press clearance, making it ideal for working with thicker workpieces or when using shorter drill bits.
- Keeps the workpiece closer to the table for increased accuracy and reduced deflection.
- Precision lead screw for smooth, even clamping force.
- Hardened steel guide rails to prevent jaw misalignment.
- Pre-drilled holes for secure mounting to the drill press table.
- Compatible with T-slot tables and standard drill press mounting systems.
- Precision ground bottom for stable and accurate positioning.
- Equipped with a convenient unigrip mechanism. Longitudinal and transversal prisms in the fixed jaw allows for firm gripping of round parts both horizontally and vertically.



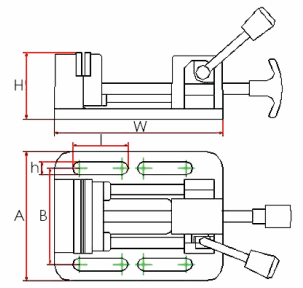
A low-profile drill press vise is designed for secure and precise clamping of workpieces while maintaining a compact height for better clearance under the drill bit. Can also be used on milling machines and other workbenches for light-duty machining.

Item#	Jaw Width	Jaw Opening	Jaw Depth	Base Length	Overall Length	Overall Width	Height	Net Wt. lbs
3906-0173	3"	2-7/8	1-3/16	6-1/8	9-1/4	5-5/8	2-9/16	8
3906-0174	4"	3	1-3/8	6-7/8	10-3/4	6-1/8	2-9/16	11

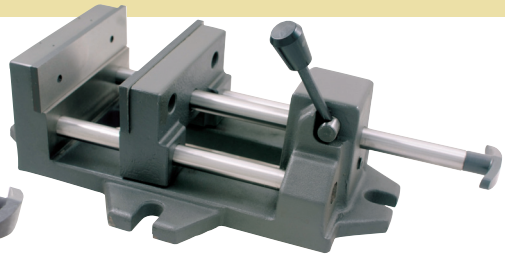
DRILL PRESS VISES

Pre-Series QUICK SLIDE DRILL PRESS VISES

- Made of high grade strong stress relieved iron casting.
- The 4&6" have 1/2" lugs on each side for mounting.
- The 3" features 1/2" slots for mounting.
- Precision ground.



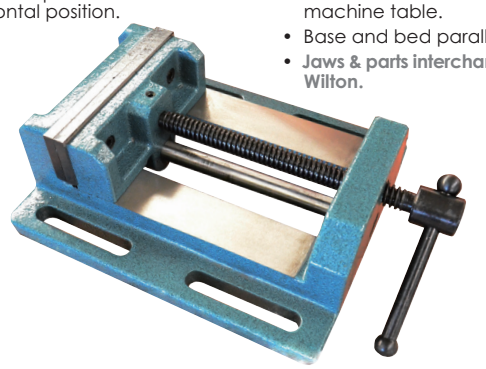

3900-0183 Shown


3900-0186 Shown

Item#	Jaw Width	Jaw Opening	Jaw Depth	A	B	H	(mm) W	h	l
3900-0183	3"	3	1	140	104	72	183	14	60
3900-0184	4"	4	1-1/2	152	126	90	308	14	--
3900-0186	6"	6	1-7/8	230	192	109	368	18	--

Pro-Series LOW PROFILE DRILL PRESS VISES

- Low profile clearance provides increased working room on machine table.
- Hardened V-groove jaws hold round shapes in either vertical or horizontal position.
- Slip handle allows for easy turning and added leverage body and slide are made of selected fine grain cast iron.
- Four slots for secure mounting to machine table.
- Base and bed parallel to 0.001".
- **Jaws & parts interchangeable with Wilton.**

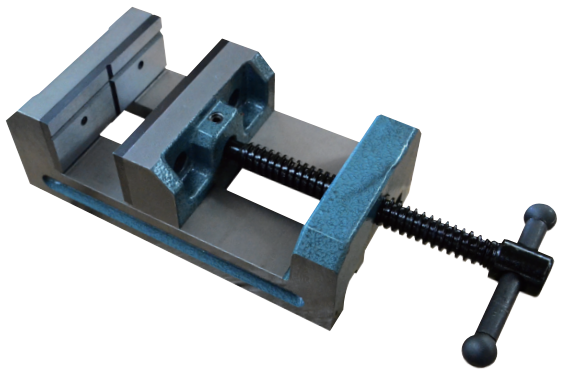


Item#	Jaw Width	Jaw Opening	Throat Depth	Wt. (Lbs.)
3901-0173*	3"	3"	1-1/8	9
3901-0174	4"	4"	1-3/4	12
3901-0176	6"	6"	2	32
3901-0178	8"	8"	2	51

* Limited Supply

Pro-Series INDUSTRIAL DRILL PRESS VISES

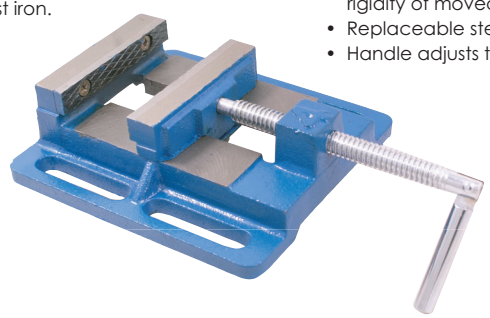
- Precision machined on 4 sides, can be used on base, sides or end.
- Body & slide are made of selected fine grain cast iron.
- Hardened steel V-groove jaws hold round shapes in both vertical or horizontal position.
- Slip handle allows for easy turning and added leverage.
- Precision ground for square and parrallel accuracy to +/- 0.001" per inch.
- **Jaws & parts interchangeable with Wilton.**



Item#	Jaw Width	Jaw Opening	Jaw Depth	Wt. (Lbs.)
3901-0184	4"	4"	1.5"	9.5
3901-0186	6"	6"	2.0"	35

DRILL PRESS VISES

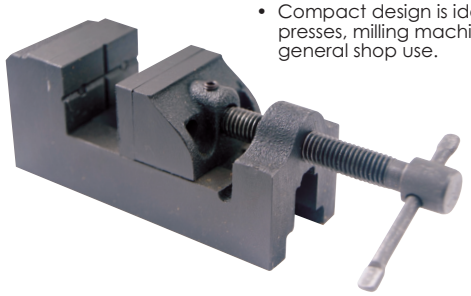
- Four slots for easy clamping to tables.
- Body and slide made of selected cast iron.
- Guiding groove controls the parallel movement and rigidity of moveable jaw.
- Replaceable steel jaws.
- Handle adjusts to any angle.



Item#	Jaw Width	Jaw Opening	Jaw Depth
3900-0177	3"	3"	1"
3900-0174	4"	4"	1-3/8"
3900-0175	5"	5"	1-1/2"
3900-0176	6"	6"	1-5/8"

DRILL PRESS VISES

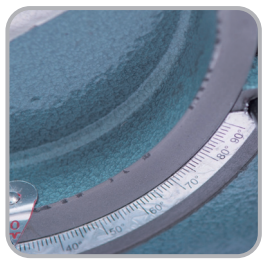
- Hardened steel construction with precision-ground jaws for secure, accurate workholding.
- Grooved jaws provide a positive grip on round, square, and irregular workpieces.
- Compact design is ideal for drill presses, milling machines, and general shop use.

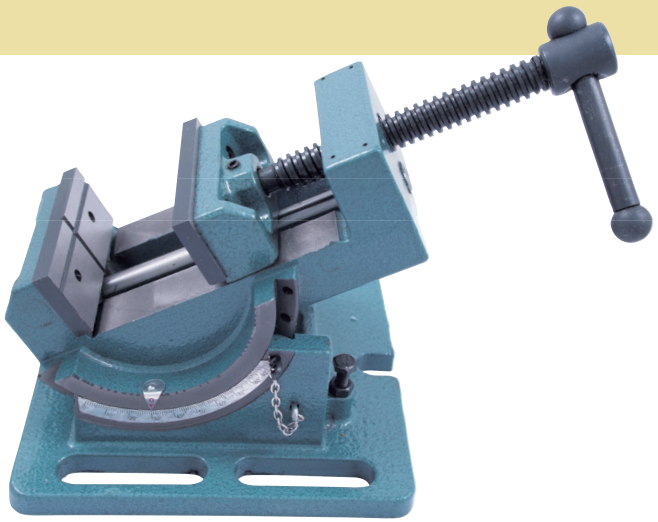


Item#	Jaw Width	Jaw Opening	Jaw Depth	OAL
3900-1730	1-1/2"	1-1/2"	1"	5-1/4"
3900-1731	2-1/2"	2-1/2"	1-1/2"	7-1/2"
3900-1732	3-1/2"	3-1/2"	1-3/4"	9-1/4"

DELUXE TILT VISES

- Full 90° horizontal to vertical adjustment.
- Base with multi-bolt slots for working table setting.
- One side of vise with angle dial and another side with lock knob very convenient for angle set-up.
- Strong cast iron with rail for secure angle adjustment.

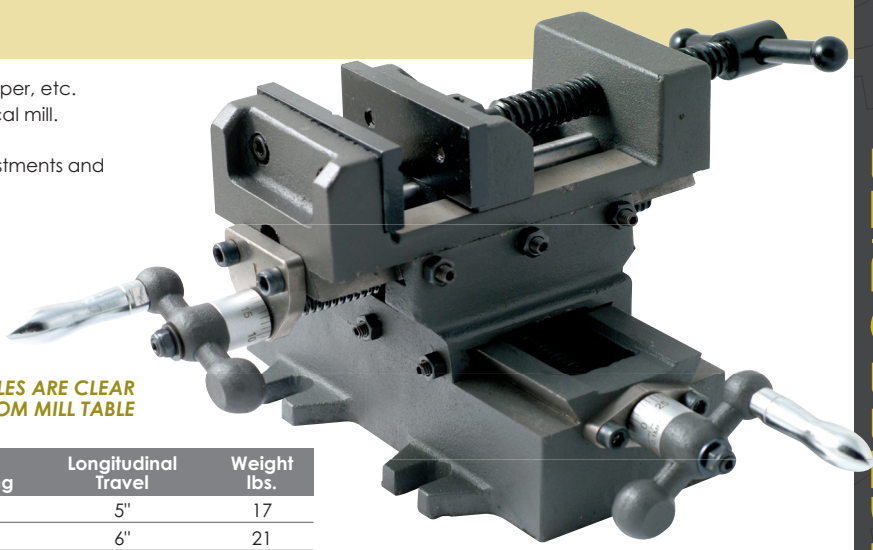




Item#	Jaw Width	Jaw Depth	Jaw Opening
3900-2683	3"	1-3/8"	3"
3900-2684	4"	1-5/8"	4"

Pre-Series X-Y CROSS SLIDE VISES

- Suitable for clamping soft materials such as aluminum, copper, etc.
- Secures firmly on drill press table and moves similar to vertical mill.
- Accurate positioning in two directions(crossed).
- Each dial is graduated in .1mm increments for precise adjustments and easily adjusts to 0.
- Ball crank handles are solid and balanced.
- Feed screws have precision cut acme threads.
- High grade cast body.
- Heat treated steel jaws.



HANDLES ARE CLEAR FROM MILL TABLE

Item#	Jaw Width	Jaw Depth	Cross Travel	Jaw Opening	Longitudinal Travel	Weight lbs.
3900-2703	3"	1-1/8"	3"	2.80"	5"	17
3900-2704	4"	1-7/16"	4"	3.80"	6"	21
3900-2706	6"	1-11/16"	6"	5.80"	8"	63

SUPER CROSS SLIDE VISES

- Suitable for clamping soft materials such as aluminum, copper, etc.
- Secures firmly on drill press table and moves similar to vertical mill.
- Accurate positioning in two directions(crossed).
- Each dial is graduated in .1mm increments for precise adjustments and easily adjusts to 0.
- Ball crank handles are solid and balanced.
- Feed screws have precision cut acme threads.
- Dial in 1mm increments.
- High grade cast body.
- Heat treated steel jaws.
- Jaws interchangeable with Wilton.

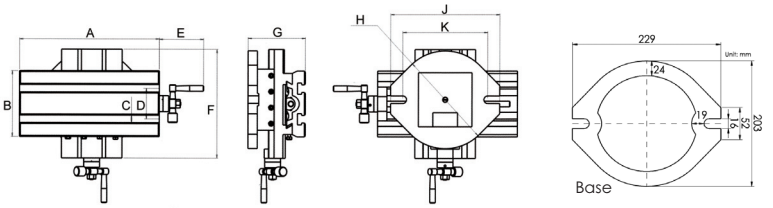


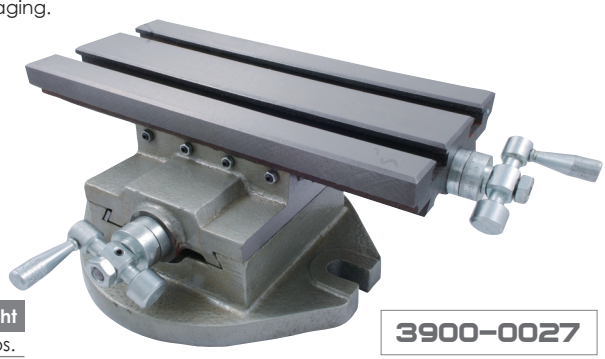
Item#	Jaw Width	Jaw Depth	Cross Travel	(Inch) Jaw Opening	Longitudinal Travel	Weight lbs.
3901-2703*	3	1.38	3	3	5	16
3901-2704*	4	1.81	4	4	5	20
3901-2705*	5	1.97	5	5	6	41
3901-2706	6	2.09	6	6	8	60
3901-2708	8	2.09	8	8	8	77

* Limited Supply

5-1/2 X 12" COMPOUND SLIDE TABLE

- A heavy, rugged slide used in positioning, milling, drilling, microscope viewing and staging.
- Adjustable bases for heavy loads, small jig boring, precision cut-off.
- T-slot Width: 5/8"



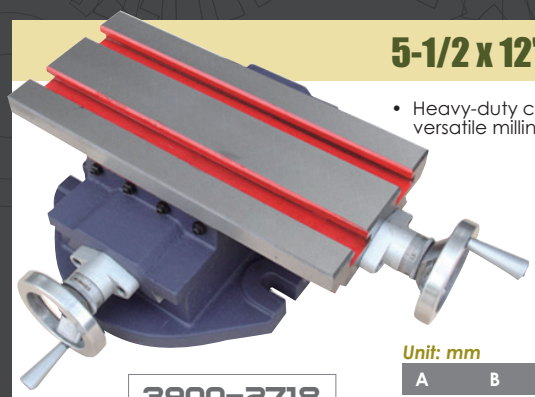


Unit: Inch

A	B	C	D	E	F	G	H	J	K	X Travel	Y Travel	Weight
12	5.5	5/8	2.5	3	9	4.5	8	9	7.6	8	5	40 Lbs.

3900-0027

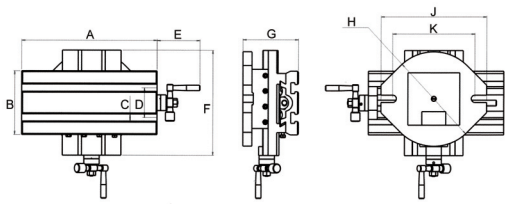
5-1/2 x 12" COMPOUND SLIDE TABLE



- Heavy-duty compound slide table features 8" of longitudinal and 5" of transverse travel for versatile milling and drilling. Features 5-1/2" x 12" table, 5/8" slots, and adjustable gibs.

SPECIFICATIONS

Table Size.....12x5-1/2"
Table Height.....5"
T-Slot.....5/8"
Wt (lbs).....38



3900-2718

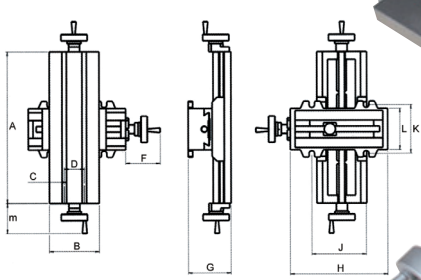
Unit: mm

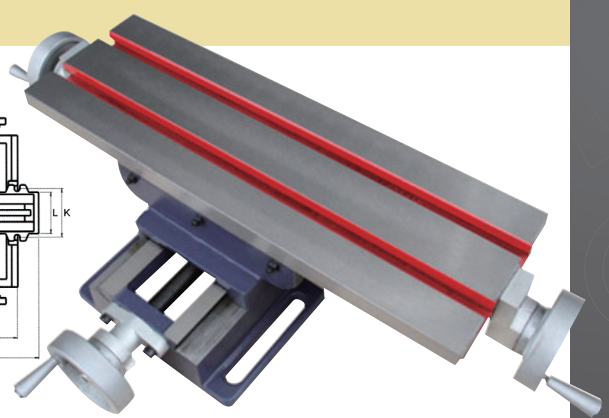
A	B	C	D	E	F	G	H	J	K	X Travel	Y Travel	Weight
300	140	16	65	300	232	123	208	234	182	180	100	18kg

6 x 18-1/2" COMPOUND MILLING TABLE

- Solid cast iron construction.
- Features 12" of longitudinal travel and 7-1/2" of transverse travel, adjustable gibs, dovetailed ways, dependable Acme screws, vernier scales and 9/16" T-slots.

3900-2728





SPECIFICATIONS

Table Size.....18-1/2 x 6"
Table Height.....5-1/4"
Footprint.....8 x 10-1/2"
T-Slot.....9/16"
Mounting Slot.....1/2"(2-1/4" on center)
Wt (lbs).....58

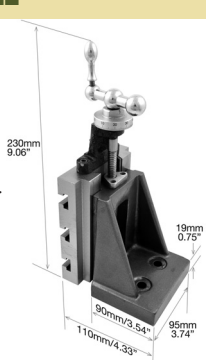
Unit: mm

A	B	C	D	E	F	G	H	J	K	L	X Travel	Y Travel
473	156	14	62.5	94	108	134	305	170	152	130	270	120

VERTICAL SLIDING MILLING/DRILLING TABLE

- 80mm up down travel distance.
- Solid cast iron construction.
- Table Size: 125 x 100mm/4.92 x 3.94"
- No. of T-slot: 3
- T-Slot Width: T- Slots is 9.8mm/0.386" wide at the top of the Tee , 16.5mm/0.65" wide at the bottom of the Tee.
- Easy to bolt on a mill table with 2 bolt holes (9mm/0.354" diameter).
- Weight: 11 lbs.

3906-2720



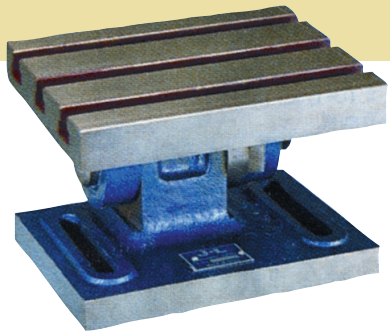




SWIVEL ANGLE PLATE

- Adjustable range 0-90°.
- High grade casting with rugged construction.
- Machined "T" slots.
- 2-screw lock setting.
- Working surfaces are hardened and ground.

3501-0014



SPECIFICATIONS

Size	Height	T-Slot	Wt. (Lbs)
6 x 8"	5"	1/2"	29

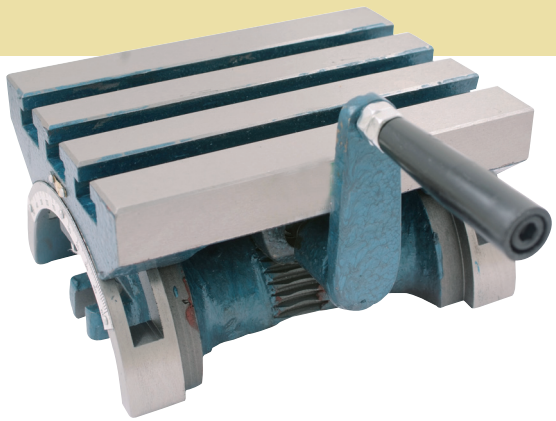
HEAVY DUTY TILTING TABLE

- Supplied complete with crank handle.
- Range 0-80° (40° each side).
- Has 2 screws for locked settings.
- Graduated in degrees for quick setting purposes.
- Heavy duty casting and precision ground with three T-slots.
- Set at any angle with indexer.
- Convex movement.

Limited Supply!

3501-0001





SPECIFICATIONS

Size	Height	T-Slot	Wt. (Lbs)
7 x 5"	3-3/4"	1/2"	21

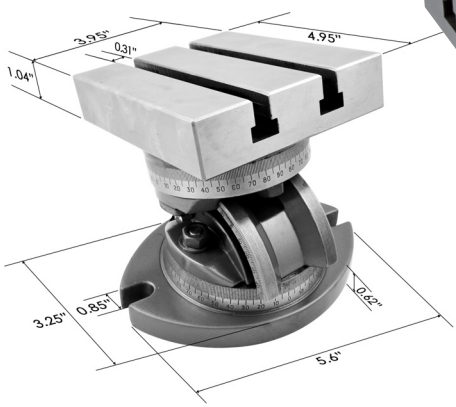
PRECISION UNIVERSAL TILTING TABLE WITH SWIVEL BASE

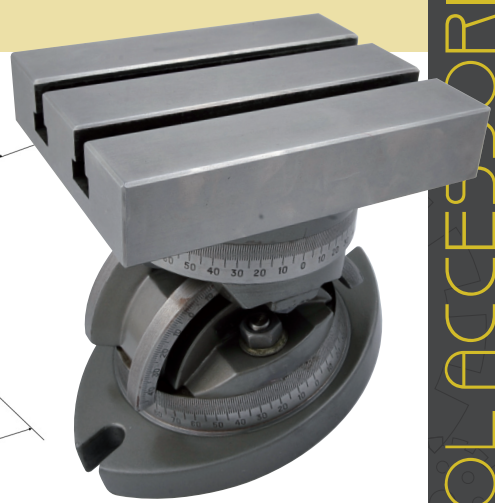
- Heavy and sturdy machined construction.
- Range 45 degree each way from vertical.
- Keyway slot at bottom of swivel base: 0.485" position.
- Swivel base graduation 360 degree.
- Can be locked into position with 2 clamping screws on each end.
- 2 Machined "T" slots that are 0.31" width and precise ground table surface.

Table Size: 4x5"
3501-0030
Weight: 13 Lbs.









4" TILTING ROTARY TABLE

- Table Diameter: 100mm/3.94".
- Horizontal Overall Height: 70mm/2.76"
- Vertical Center Height: 70mm/2.76".
- Gear ratio 36:1.
- T-Slot Width: 7.95mm/5/16"
- Number of T-slot: 4
- 10 second vernier reading.
- One rotation of handle equals 10° on collar.
- Worm gear is easily disengaged for free rotation.
- Tilts 0~90°
- Base has two bolt holes: 9.8mm/0.386" diameter.



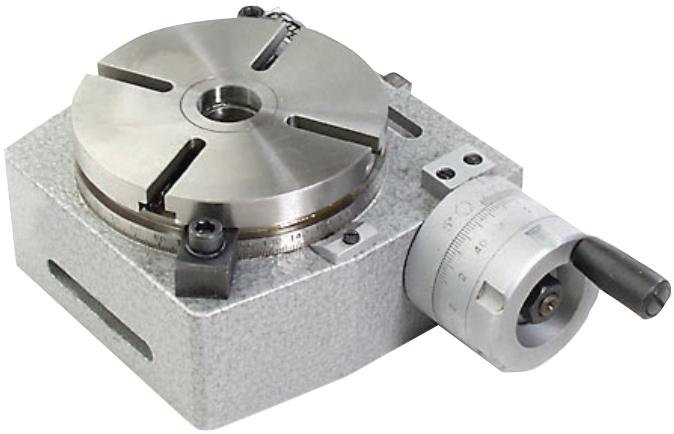
3906-2338





4" HORIZONTAL/VERTICAL ROTARY TABLE & DIVIDING PLATE

- 10 second vernier reading.
- One rotation of handle equals 4° on collar.
- Center height: 2.75"
- Gear ratio 72:1.
- Center Hole: 2MT
- Number of T-slot: 4
- This set consists of one plate with a set of 10 holes. This allows you to divide a circle into 1/2 degree increments. You can divide a circle into the following number of divisions 2, 3, 4, 5, 6, 8, 9, 10, 12, 15, 16, 18, 20, 24, 30, 36, 40, 45, 48, 60, 72, 80, 90, 120, 144, 180, 240, 360, 720.



4" ROTARY TABLE
3900-2304



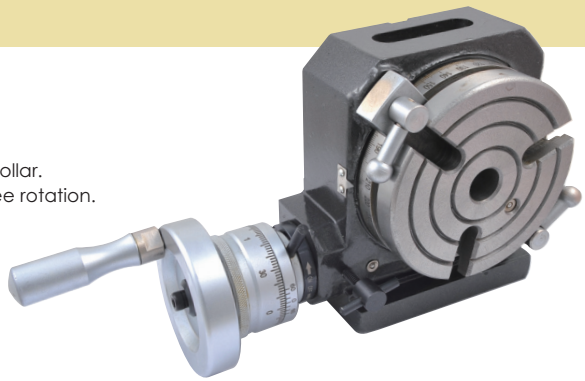


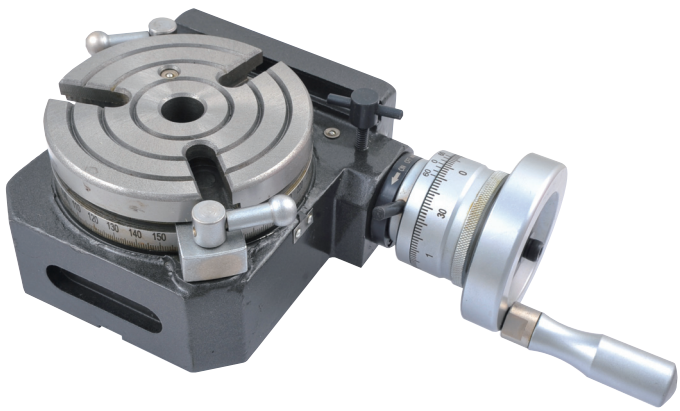
SPECIFICATIONS	
Vernier Reading	10 seconds
Squareness	0.0008"
Base Parallelism (face to face)	0.0004"
Taper(MT2) center bore Concentricity	0.0008"
Clamping surface flatness	0.0006"

DIVIDING PLATE
3900-2400

4" HORIZONTAL/VERTICAL ROTARY TABLE

- Table Diameter: 110mm/4-3/8".
- Horizontal Overall Height: 80mm/3-1/8"
- Vertical Overall Height: 152mm
- Overall Length (with handle): 280mm
- Center height: 86mm
- Gear ratio 90:1.
- Center Hole: 2MT
- T-Slot Width: 11mm/7/16"
- Number of T-slot: 3
- 10 second vernier reading.
- Graduated 360 degrees
- One rotation of handle equals 4° on collar.
- Worm gear is easily disengaged for free rotation.





4" ROTARY TABLE
3906-2304



3" & 4" ROUND MACHINE VISE FOR ROTARY TABLES

- Made from tool steel.
- Hardened and ground.
- Low profile.
- Mounting holes for easy attachment to rotary table or slides on milling table.
- Mounting T-nut and cap screws included.
- V-groove for holding round parts.

3" Vise
3906-2213

4" Vise
3906-2214





4" Shown

SPECIFICATIONS	3"	4"
T-nut Width	7.8mm	7.6mm
Jaw Width	64mm	80mm
Jaw Depth	20mm	20mm
Jaw Opening	28mm	40mm
Base Diameter	80mm	100mm

4" ROTARY TABLE KIT

KIT INCLUDES:
Rotary Table, Dividing Plates, Tail Stock, Clamping Kit & 4-Jaw Self-Centering Lathe Chuck With Mounting Plate

Table Size (Dia.)	Center Hole	Vert. Center Height	Horizontal Overall Height	Vertical Overall Height	Number of T-slots	T-slot Width
4"	2MT	3-1/4"	3-1/8"	6"	3	7/16"

- Complete rotary table package includes rotary table, dividing plates, adjustable tailstock, clamping kit, and 4-jaw chuck for versatile indexing and machining applications.
- Precision-ground rotary table delivers accurate positioning for milling, drilling, slotting, circular cutting, and gear cutting operations.
- Horizontal and vertical mounting capability increases setup flexibility for complex machining and indexing applications.
- Worm gear drive system provides smooth, controlled table rotation for precise angular adjustments and repeatable machining accuracy.
- Graduated 360° scale with fine vernier reading allows accurate positioning and easy indexing adjustments.
- Compact low-profile design maximizes machine clearance while maintaining rigidity and stability during machining.
- Heavy-duty cast iron construction absorbs vibration and improves machining consistency and surface finish quality.
- Ideal for use in tool rooms, maintenance departments, prototype shops, CNC machining centers, and manual milling operations.
- Complete accessory package reduces setup time and provides everything needed for precision rotary machining applications.
- Excellent for machining arcs, radii, bolt circles, gears, splines, indexed flats, and circular patterns.

BUY A COMPLETE KIT & SAVE !

4" Rotary Table Kit
3906-2314
Weight: 38 Lbs.

DIVIDING PLATES

- Indexing plates allow accurate division of workpieces for gears, splines, bolt circles, and equally spaced hole patterns.
- Multiple index plate combinations provide a wide range of indexing possibilities for precision machining applications.
- Includes crank handle, sector arms, screws, and washers for fast and repeatable indexing adjustments.
- Precision-machined plates improve indexing accuracy and reduce setup errors during production work.
- Ideal for gear cutting, indexing operations, rotary drilling patterns, and precision angular spacing.

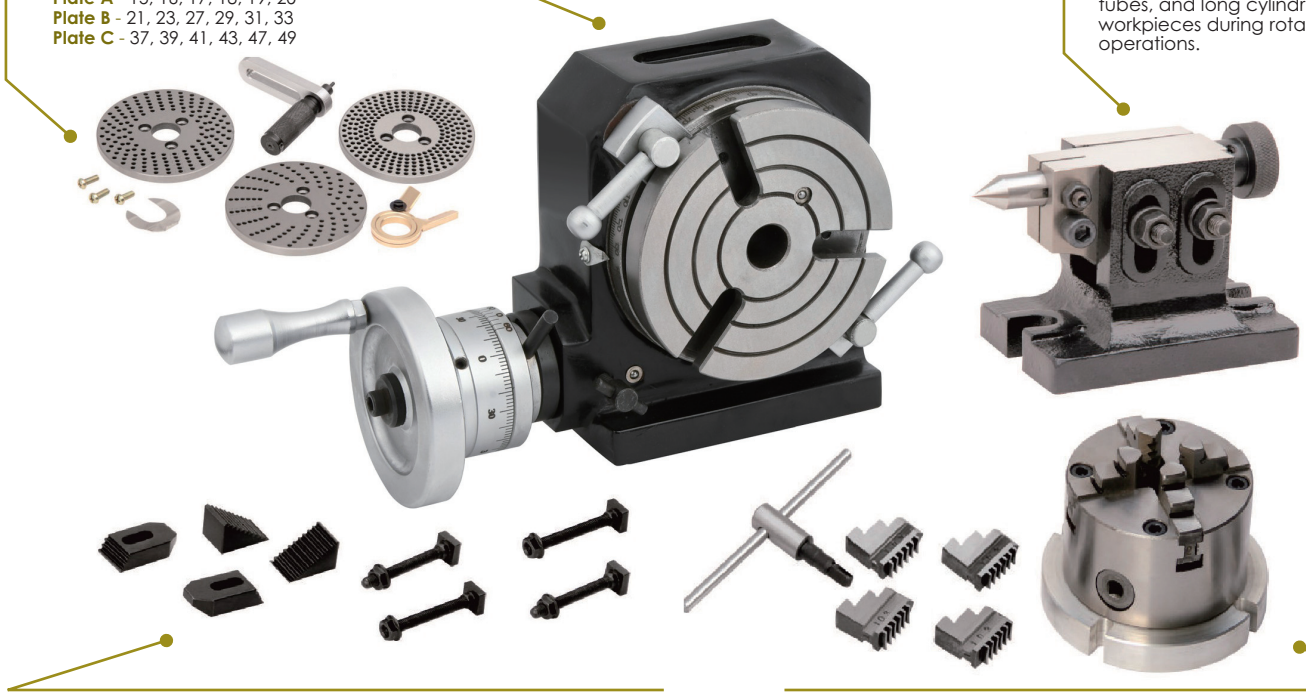
SET INCLUDES:
Plate A - 15, 16, 17, 18, 19, 20
Plate B - 21, 23, 27, 29, 31, 33
Plate C - 37, 39, 41, 43, 47, 49

ROTARY TABLE

- Precision-ground table surface provides accurate workpiece positioning and improved machining repeatability.
- Horizontal and vertical operation allows multiple setup configurations for milling, drilling, and indexing applications.
- Hardened worm gear system ensures smooth rotation, long service life, and precise angular control.
- Graduated handwheel and vernier scale allow fine adjustments for accurate indexing and circular machining.
- T-slotted table design securely holds fixtures, clamps, vises, and workpieces during machining operations.
- Low-profile construction improves rigidity while maximizing machine work area and clearance.

ADJUSTABLE TAILSTOCK

- Adjustable tailstock(1.65-3.62") supports long workpieces during rotary machining operations for improved stability and accuracy.
- Precision center alignment helps reduce vibration and workpiece deflection during turning and indexing operations.
- Adjustable height design accommodates different workpiece diameters and setup requirements.
- Rigid cast construction improves support strength and machining consistency.
- Ideal for supporting shafts, bars, tubes, and long cylindrical workpieces during rotary table operations.



16 PC CLAMPING KIT

- Complete clamping securely holds workpieces and fixtures to the rotary table during machining operations.
- Drop-forged steel components provide high strength and durability under heavy clamping loads.
- Case-hardened and heat-treated parts resist wear and deformation for long service life.
- Includes step clamps, step blocks, studs, T-slot nuts, and flange nuts for versatile workholding setups.
- Allows fast, secure, and adjustable workpiece positioning for milling, drilling, and indexing applications.

EACH KIT CONTAINS:
For 4" Rotary Table: 2pc each of Step Clamp, Step Block, 4pc of each M8 Stud, T-slot Nut & Flanged Nut.

3" 4-JAW SELF-CENTERING LATHE CHUCK

- Self-centering scroll chuck design allows fast and accurate workpiece centering for rotary machining operations.
- High-grade tool steel construction provides durability, wear resistance, and reliable gripping performance.
- Includes internal and external jaws for holding a wide range of workpiece sizes and configurations.
- Mounting plate allows quick installation onto the rotary table for expanded machining versatility.
- Chuck wrench included for convenient setup and jaw adjustment.
- Ideal for holding round, hex, and irregular-shaped workpieces during indexing and rotary machining operations.

6" ROTARY TABLE KIT

KIT INCLUDES:
Rotary Table, Dividing Plates, Tail Stock, Clamping Kit & 4-Jaw Self-Centering Lathe Chuck With Mounting Plate

Table Size (Dia.)	Center Hole	Vert. Center Height	Horizontal Overall Height	Vertical Overall Height	Number of T-slots	T-slot Width
6"	2MT	3.9"	3.1"	8.1"	4	0.43"

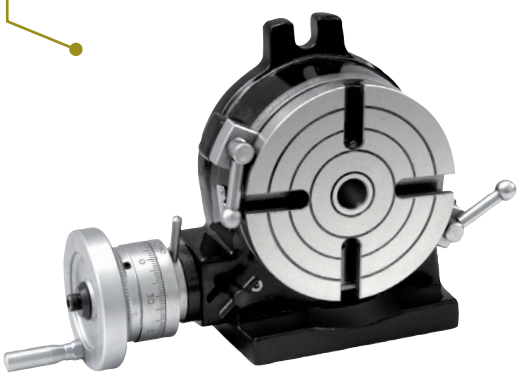
- Complete rotary table package includes rotary table, dividing plates, adjustable tailstock, clamping kit, and 4-jaw chuck for precision indexing and machining applications.
- Precision-ground rotary table provides accurate positioning for milling, drilling, circular cutting, bolt circles, and gear cutting operations.
- Horizontal and vertical mounting capability increases flexibility for complex machining and multi-angle applications.
- Heavy-duty worm gear drive system delivers smooth table rotation and precise angular positioning for repeatable machining accuracy.
- Graduated 360° scale with fine vernier reading allows accurate indexing and precise rotational adjustments.
- Rugged cast iron construction improves rigidity, minimizes vibration, and enhances surface finish quality during machining operations.
- Low-profile design maximizes machine clearance and usable work area while maintaining strong workholding support.
- Complete accessory package reduces setup time and provides a versatile solution for rotary machining applications.
- Ideal for tool rooms, maintenance departments, prototype shops, production machining, and CNC or manual milling environments.
- Excellent for machining gears, splines, arcs, radii, bolt circles, indexed flats, and circular hole patterns.

BUY A COMPLETE KIT & SAVE !

6" Rotary Table KIt
3906-2316
Weight: 51 Lbs.

ROTARY TABLE

- Precision-ground table surface improves workpiece positioning accuracy and machining repeatability.
- Horizontal and vertical operating positions allow flexible setups for milling, drilling, and indexing operations.
- Hardened worm gear and shaft provide smooth operation, precise rotation, and long service life.
- Graduated handwheel and vernier scale allow fine rotational adjustments for accurate indexing applications.
- Multiple T-slots securely hold fixtures, clamps, vises, and workpieces during machining operations.
- Heavy-duty construction improves rigidity and reduces vibration under heavy cutting conditions.



DIVIDING PLATES

- Precision indexing plates allow accurate division of workpieces for gears, splines, bolt circles, and evenly spaced hole patterns.
- Multiple hole patterns provide a wide range of indexing combinations for precision machining applications.
- Includes index plates, crank handle, sector arms, screws, and washers for fast and repeatable indexing adjustments.
- Precision-machined plates improve indexing consistency and reduce setup time.
- Ideal for gear cutting, indexing operations, rotary drilling patterns, and precision angular spacing.

SET INCLUDES:

Plate A - 26, 30, 34, 38, 41, 44, 47, 51, 57, 28, 32, 37, 39, 43, 46, 49, 53, 59

Plate B - 62, 67, 71, 77, 81, 87, 91, 97, 63, 69, 73, 83, 89, 93, 99



Dividing Plate Set

ADJUSTABLE TAILSTOCK

- Adjustable tailstock (4.5-5.7") supports long or extended workpieces during rotary machining operations for improved stability and accuracy.
- Precision center alignment helps reduce vibration and workpiece deflection during machining.
- Adjustable height design accommodates multiple workpiece diameters and setup requirements.
- Rigid cast construction provides strong support and consistent machining performance.
- Ideal for supporting shafts, bars, tubing, and cylindrical workpieces during indexing and rotary operations.



Tail Stock



Rotary Table & 4-Jaw Chuck with Aluminum Plate



Clamping Kit

4" 4-JAW SELF-CENTERING LATHE CHUCK

- Self-centering scroll chuck design provides fast and accurate workpiece centering for rotary machining applications.
- High-grade tool steel construction delivers durability, wear resistance, and dependable gripping performance.
- Includes two sets of jaws for internal and external gripping versatility.
- Mounting plate allows quick installation onto the rotary table for expanded machining capability.
- Chuck wrench included for convenient setup and adjustment.
- Ideal for holding round, hex, and irregular-shaped workpieces during rotary indexing and machining operations.

16 PC CLAMPING KIT

- Complete clamping kit securely holds workpieces and fixtures to the rotary table during machining operations.
- Drop-forged steel components provide high strength and durability under heavy clamping loads.
- Case-hardened and heat-treated parts resist wear and deformation for long service life.
- Allows fast, secure, and adjustable workholding for milling, drilling, and indexing applications.

EACH KIT CONTAINS:

For 6" Rotary Table: 16PC Two pc each of Step Clamp, Step Block, and Four PC each of Stud, T-slot Nut & Flanged Nut.

8" ROTARY TABLE KIT

KIT INCLUDES:
Rotary Table,Dividing Plates, Tail Stock, Clamping Kit & 4-Jaw Self-Centering Lathe Chuck With Mounting Plate

Table Size (Dia.)	Center Hole	Vert. Center Height	Horizontal Overall Height	Vertical Overall Height	Number of T-slots	T-slot Width
8"	3MT	5.3"	4.1"	10.4"	4	0.55"

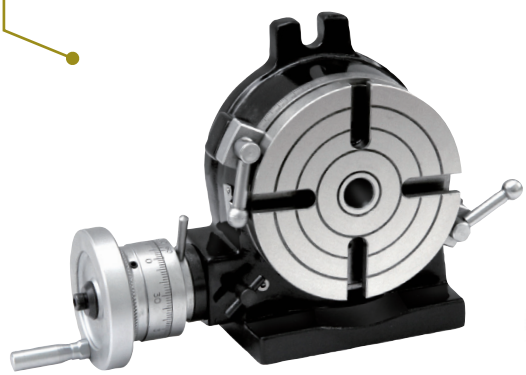
- Complete rotary table package includes rotary table, dividing plates, adjustable tailstock, clamping kit, and 4-jaw chuck for precision indexing and machining applications.
- Precision-ground rotary table provides accurate positioning for milling, drilling, circular cutting, bolt circles, and gear cutting operations.
- Horizontal and vertical mounting capability increases flexibility for complex machining and multi-angle applications.
- Heavy-duty worm gear drive system delivers smooth table rotation and precise angular positioning for repeatable machining accuracy.
- Graduated 360° scale with fine vernier reading allows accurate indexing and precise rotational adjustments.
- Rugged cast iron construction improves rigidity, minimizes vibration, and enhances surface finish quality during machining operations.
- Low-profile design maximizes machine clearance and usable work area while maintaining strong workholding support.
- Complete accessory package reduces setup time and provides a versatile solution for rotary machining applications.
- Ideal for tool rooms, maintenance departments, prototype shops, production machining, and CNC or manual milling environments.
- Excellent for machining gears, splines, arcs, radii, bolt circles, indexed flats, and circular hole patterns.

BUY A COMPLETE KIT & SAVE !

8" Rotary Table Kit
3906-2318
Weight: 111 Lbs.

ROTARY TABLE

- Precision-ground table surface improves workpiece positioning accuracy and machining repeatability.
- Horizontal and vertical operating positions allow flexible setups for milling, drilling, and indexing operations.
- Hardened worm gear and shaft provide smooth operation, precise rotation, and long service life.
- Graduated handwheel and vernier scale allow fine rotational adjustments for accurate indexing applications.
- Multiple T-slots securely hold fixtures, clamps, vises, and workpieces during machining operations.
- Heavy-duty construction improves rigidity and reduces vibration under heavy cutting conditions.



DIVIDING PLATES

- Precision indexing plates allow accurate division of workpieces for gears, splines, bolt circles, and evenly spaced hole patterns.
- Multiple hole patterns provide a wide range of indexing combinations for precision machining applications.
- Includes index plates, crank handle, sector arms, screws, and washers for fast and repeatable indexing adjustments.
- Precision-machined plates improve indexing consistency and reduce setup time.
- Ideal for gear cutting, indexing operations, rotary drilling patterns, and precision angular spacing.

SET INCLUDES:

Plate A - 26, 30, 34, 38, 41, 44, 47, 51, 57, 28, 32, 37, 39, 43, 46, 49, 53, 59

Plate B - 62, 67, 71, 77, 81, 87, 91, 97, 63, 69, 73, 83, 89, 93, 99



Dividing Plate Set

ADJUSTABLE TAILSTOCK

- Adjustable tailstock (4.5-5.7") supports long or extended workpieces during rotary machining operations for improved stability and accuracy.
- Precision center alignment helps reduce vibration and workpiece deflection during machining.
- Adjustable height design accommodates multiple workpiece diameters and setup requirements.
- Rigid cast construction provides strong support and consistent machining performance.
- Ideal for supporting shafts, bars, tubing, and cylindrical workpieces during indexing and rotary operations.



Tail Stock



Rotary Table & 4-Jaw Chuck with Aluminum Plate



Clamping Kit

5" 4-JAW SELF-CENTERING LATHE CHUCK

- Self-centering scroll chuck design provides fast and accurate workpiece centering for rotary machining applications.
- High-grade tool steel construction delivers durability, wear resistance, and dependable gripping performance.
- Includes two sets of jaws for internal and external gripping versatility.
- Mounting plate allows quick installation onto the rotary table for expanded machining capability.
- Chuck wrench included for convenient setup and adjustment.
- Ideal for holding round, hex, and irregular-shaped workpieces during rotary indexing and machining operations.

10 PC CLAMPING KIT

- Complete clamping kit securely holds workpieces and fixtures to the rotary table during machining operations.
- Drop-forged steel components provide high strength and durability under heavy clamping loads.
- Case-hardened and heat-treated parts resist wear and deformation for long service life.
- Allows fast, secure, and adjustable workholding for milling, drilling, and indexing applications.

EACH KIT CONTAINS:

For 8" Rotary Table: Two pc each of Step Clamp, Step Block, Stud, T-slot Nut & Flanged Nut.

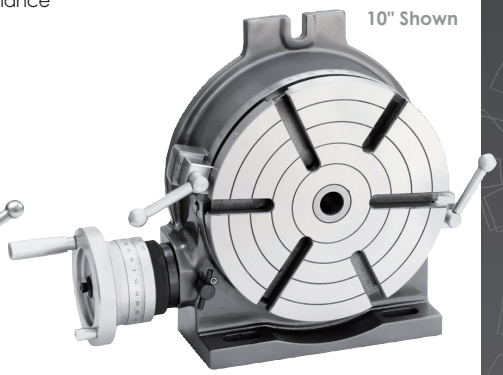
HORIZONTAL & VERTICAL PRECISION ROTARY TABLES

- Precision-ground rotary table surfaces provide excellent accuracy and repeatable positioning for milling, drilling, boring, and indexing operations.
- Horizontal and vertical operating capability allows versatile setups for complex machining applications and multi-angle work.
- Hardened one-piece worm and shaft assembly deliver smooth rotation, precise indexing, and long service life.
- Worm gear can be easily disengaged for rapid free-table rotation and faster setup adjustments.
- Graduated 360° scale with fine 10-second vernier reading allows highly accurate angular positioning and indexing control. One rotation of handle equals 4° on collar.
- Heavy-duty cast iron construction absorbs vibration and improves machining stability and surface finish quality.
- Low-profile design maximizes machine work envelope and setup clearance while maintaining rigidity.
- Precision-machined T-slots securely hold fixtures, vises, clamps, and workpieces during machining operations.
- Strategically positioned controls provide convenient access and smooth operation during setup and machining.
- Ideal for machining arcs, radii, gears, splines, bolt circles, indexed flats, circular hole patterns, and precision angular work.
- Suitable for use on manual mills, CNC machining centers, tool rooms, maintenance departments, and prototype shops.
- Available in multiple table sizes to accommodate small precision work through larger heavy-duty machining applications.

5" & 6" Shown



10" Shown



Item#	Table Size (Dia.)	Center Hole	Vertical Center Height	Horizontal Overall Height	Vertical Overall Height	Number of T-slots	T-slot Width	Gear Ratio	Weight (lbs.)
3906-2305	5"	2MT	3-5/8"	3.30"	7.00"	4	7/16"	90:1	20
3906-2306	6"	2MT	4.02"	3.25"	--	4	0.63"	90:1	31
3906-2308	8"	3MT	5.31"	4.25"	--	3	0.94"	90:1	65
9998-0004	10"	3MT	6.50"	4.50"	12.6"	6	0.55"	90:1	85

VARIATION / ACCURACY SPECIFICATIONS:

SPECIFICATIONS	ACCURACY
Clamping Surface Flatness	0.0006"
Cylinder Center Bore TIR	0.0008"
Taper Center Bore TIR	0.0008"
Surface To Base Parallelism	0.0008"
Surface To Angle Face Squareness	0.0004"
Surface To Center Slot Squareness	0.0008"

DIVIDING PLATES - For 4~6" Rotary Tables

SET INCLUDES:

Plate A - 15,16,17,18,19,20
Plate B - 21,23,27,29,31,33
Plate C - 37,39,41,43,47,49
Washers,
Crank Handle & Screws

3906-2390

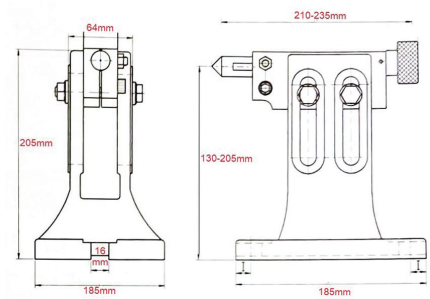
Fits Most of 4~6" Rotary Table



ADJUSTABLE TAILSTOCKS FOR ROTARY TABLES

- Adjustable tailstocks provide stable support for long or extended workpieces during rotary table machining operations.
- Precision center alignment improves machining accuracy while reducing vibration and workpiece deflection.
- Adjustable height design accommodates multiple workpiece diameters and various machining setups.
- Heavy-duty cast iron construction improves rigidity and stability during milling, drilling, indexing, and rotary machining applications.
- Designed for use with horizontal and vertical rotary tables for increased setup versatility.
- Precision-machined base allows secure mounting and reliable alignment with rotary table centerlines.
- Adjustable center positioning allows accurate support for shafts, tubing, bars, and cylindrical workpieces.
- Ideal for rotary indexing, shaft support, cylindrical machining, gear cutting, and precision rotary applications.
- Locking design securely maintains center position during machining operations for consistent support and repeatable accuracy.
- Compact design maximizes usable machine work area while maintaining strong workpiece support.

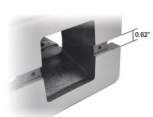
The height can be varied when working with different index centers, while the angle of inclination can be changed for various machining applications. In addition, the tip of the carrier is finely rotatable. Clamping is made by tightening the bolts.

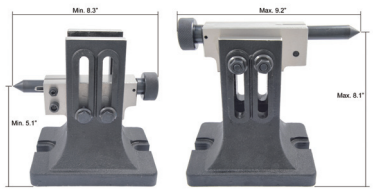


8-12" Shown



8-12" Shown

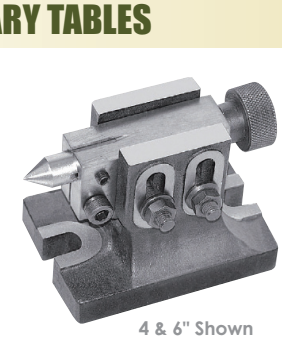




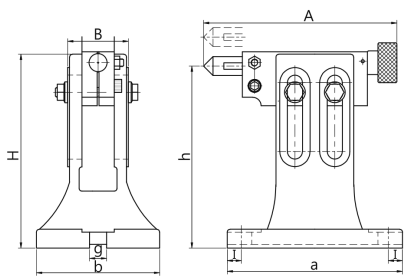
Item#	Fits Rotary Table Sizes	Adjustable Height Range	Weight
3906-2406	4"-6"	1.65-3.62" / 42-92 mm	6.2 lbs.
3906-2407	6"-8"	3.65-4.92" / 93-125 mm	9.55 lbs.
3906-2411	8"-12"	5.19-8.11" / 132-206 mm	19.25 lbs.

VERTEX® ADJUSTABLE TAILSTOCKS FOR ROTARY TABLES

- **Made in Taiwan** – High Quality & Exceptional Value: Precision manufacturing delivers consistent accuracy and durability comparable to premium brands at a more competitive price.
- **Designed for Large Rotary Tables** – Specifically sized for use with 12" to 16" rotary tables and indexing setups.
- **Adjustable Center Height** – Height adjusts to match multiple machine and table configurations.
- **Precision Live/Dead Center Support** – Supports shafts, long workpieces, and round stock during machining or inspection.
- **Rigid Cast Iron Construction** – Heavy-duty body provides stability and vibration resistance for accurate work.
- **Smooth Fine Adjustment Screw** – Allows controlled center positioning for quick setup and repeatable alignment.
- **Wide Base for Secure Mounting** – Stable footprint helps maintain rigidity during milling, turning, grinding, or indexing operations.


4 & 6" Shown


8" Shown



MADE IN TAIWAN


10 & 12" Shown



14 & 16" Shown

Unit: Inch/mm

Item#	Fits Table	Adjustable Height (Min.-Max.)	A	B	H	I	a	b	g	Weight (lbs.)
3900-2407	4 & 6"	3.15-4.25/80-108	6.1-7.08/155-180	2.52/64	4.21/107	0.43/11	5.28/134	3.70/94	0.63/16	9
3900-2409	8"	4.53-5.91/115-150	6.69-7.68/170-195	2.52/64	5.91/150	0.43/11	6.10/155	4.33/110	0.63/16	12
3900-2411	10 &12"	5.12-8.07/130-205	8.27-9.25/210-235	2.52/64	8.07/205	0.51/13	7.28/185	5.43/138	0.63/16	18
3900-2413	14 &16"	7.48-10.24/190-260	8.27-9.25/210-235	2.95/75	10.24/260	0.67/17	8.07/205	5.67/144	0.63/16	26

VERTEX® DIVIDING PLATES

MADE IN TAIWAN

- Suitable for VERTEX rotary tables.
- **Set includes:** index plates, crank handle, 3pc screw, sector & U washer.

Item#	Fits Rotary Table (Dia.)	Plate Include
3900-2390	4 & 6"	SET I
3900-2392	8"	SET II
3900-2394	10 & 12"	SET II
3900-2396	6 & 8" (Super Spacer)	SET II

SET II
Plate A - 26, 30, 34, 38, 41, 44, 47, 51, 57, 28, 32, 37, 39, 43, 46, 49, 53, 59
Plate B - 62, 67, 71, 77, 81, 87, 91, 97, 63, 69, 73, 83, 89, 93, 99

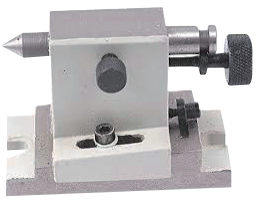
SET I
Plate A - 15, 16, 17, 18, 19, 20
Plate B - 21, 23, 27, 29, 31, 33
Plate C - 37, 39, 41, 43, 47, 49



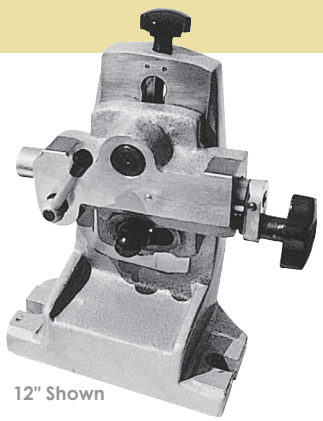
ADJUSTABLE TAILSTOCKS FOR ROTARY TABLES

- Heavy-duty cast iron construction provides rigid, stable support for rotary tables, indexing, and inspection applications while reducing vibration during operation.
- Adjustable center height design allows precise alignment with multiple rotary tables, dividing heads, and workholding setups for increased versatility.
- Precision-ground center and spindle components improve alignment accuracy and ensure dependable support for long or delicate workpieces.
- Locking spindle mechanism securely holds workpieces in position, helping minimize chatter and deflection during machining operations.
- Hardened center enhances wear resistance and extends service life in demanding machine shop environments.

Item#	Fits Table	Center Height
3900-2406	4"	2.75"
3900-2403*	12"	7.5~9.0"


4" Shown

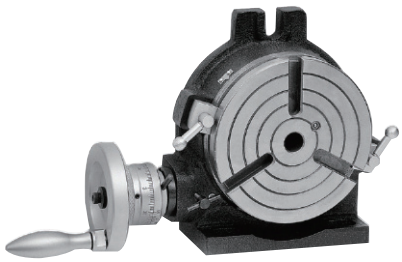
* Limited Supply

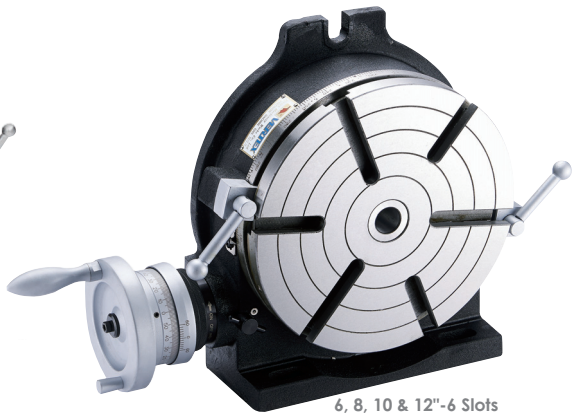

12" Shown

HORIZONTAL/VERTICAL ROTARY TABLES

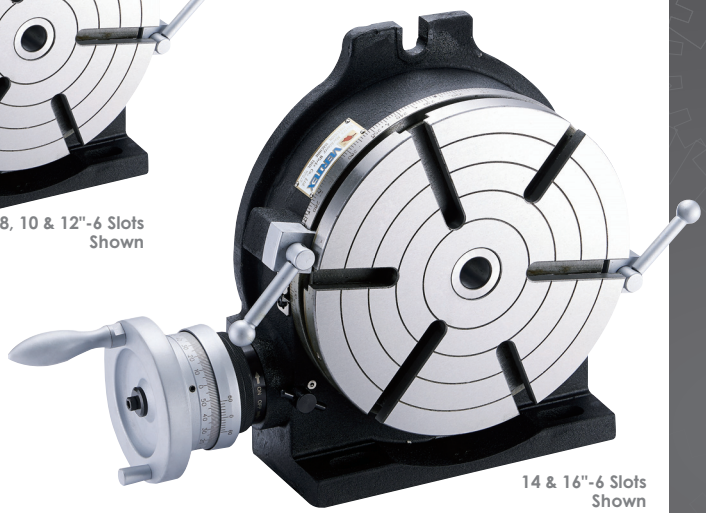
- **Made in Taiwan** – High Quality & Exceptional Value: Precision manufacturing delivers consistent accuracy and durability comparable to premium brands at a more competitive price
- **Horizontal & Vertical Operation** – Use flat or upright for maximum versatility in milling, drilling, slotting, and circular machining applications.
- **Precision Worm Gear Drive (90:1 Ratio)** – Smooth, controlled rotation for accurate indexing and dependable repeatability.
- **Fine Graduation Collar** – One full handle turn equals 4°, allowing precise angular adjustments.
- **Vernier Reading Scale** – Easy-to-read graduations provide accurate positioning down to 10 seconds.
- **Large T-Slotted Table Surface** – Securely mounts fixtures, vises, chucks, clamps, and custom tooling.
- **Heavy-Duty Cast Iron Construction** – Rigid body minimizes vibration and maintains accuracy under load.
- **Machined Table Face with Center Bore** – Ideal for locating workpieces, centers, mandrels, and rotary fixtures.

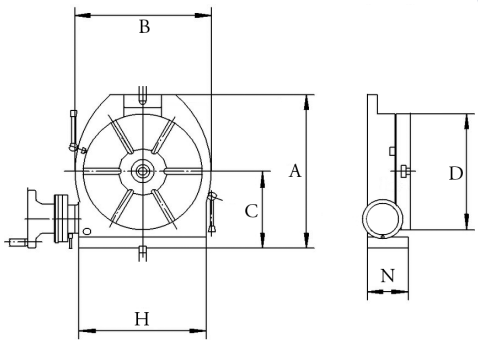

4.3"-3 Slots Shown


6"-3 Slots Shown


6, 8, 10 & 12"-6 Slots Shown

MADE IN TAIWAN


14 & 16"-6 Slots Shown



Unit: Inch

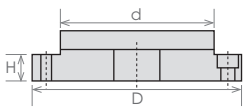
Item#	Table Size	Height-over-all D	Height-over-all H	Height-over-all A	Center Hole	Center Height C	Number of T-slots	T-Slot Size	N	B	Load Capacity (Lbs.) Horizontal	Load Capacity (Lbs.) Vertical	Weight (lbs.)
3900-2314	4	4.3	2.8	5.4	2MT	3.3	3	0.43	2.3	4.7	77	39	17
3900-2316	6	6	3.1	8.1	2MT	3.9	3	0.43	3.1	6.4	88	44	28
3900-2328	8	8	4.1	10.4	3MT	5.3	3	0.55	3.9	8.6	176	88	60
3900-2330	10	10	4.5	12.6	3MT	6.5	6	0.55	4.2	10.9	198	110	83
3900-2332	12	12	5.3	15.3	4MT	7.7	6	0.63	4.8	13.0	264	132	134
3900-2334	14	13.90	4.92	17.52	4MT	8.86	6	0.62	4.84	15.31	286	154	191
3900-2336	16	15.98	5.12	19.69	4MT	10.04	6	0.62	5.04	17.13	308	154	240

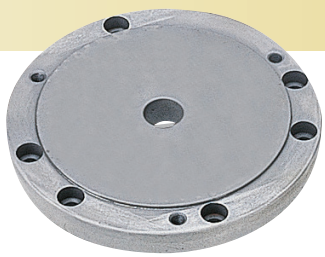
Tailstock on Page 296.

ROTARY TABLE FLANGES FOR FRONT-MOUNT CHUCKS

- **Designed for Front-Mount Applications** – Allows plain back self-centering chucks to be securely mounted to rotary tables for indexing, circular milling, drilling, and machining operations.
- **Precision Machined for Accurate Alignment** – help maintain chuck concentricity and improve rotational accuracy during machining operations.
- **Made in Taiwan** – High Quality Construction: provides dependable fit, durability, and long service life in industrial machining environments.
- **Adaptable Design** – Compatible with Pro-Series rotary tables. Hole patterns may require modification for non-Pro-Series rotary tables or chucks.

MADE IN TAIWAN





Installation Process:

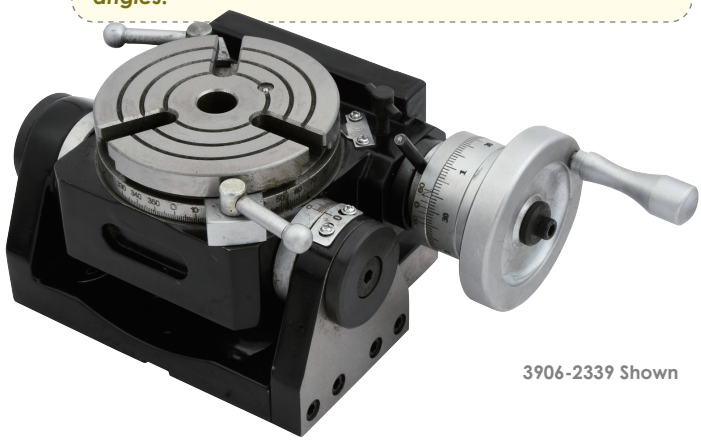
1. The flange mounts directly to the rotary table using the table's T-slots or threaded mounting holes.
2. The chuck mounts to the flange using the chuck's rear mounting bolt pattern.
3. Once assembled, the rotary table rotates the chuck and workpiece together with precision positioning.

Item#	Fit Chuck Size	Used For Table (Dia.)	(Inch) D	(Inch) d	(Inch) H
3900-2352	5	6 & 8	5.43	3.94	0.787
3900-2355	6	8 & 10	6.69	5.12	0.827
3900-2358	7	10 &12	7.68	6.10	0.945
3900-2360	8	12	8.27	6.30	0.945

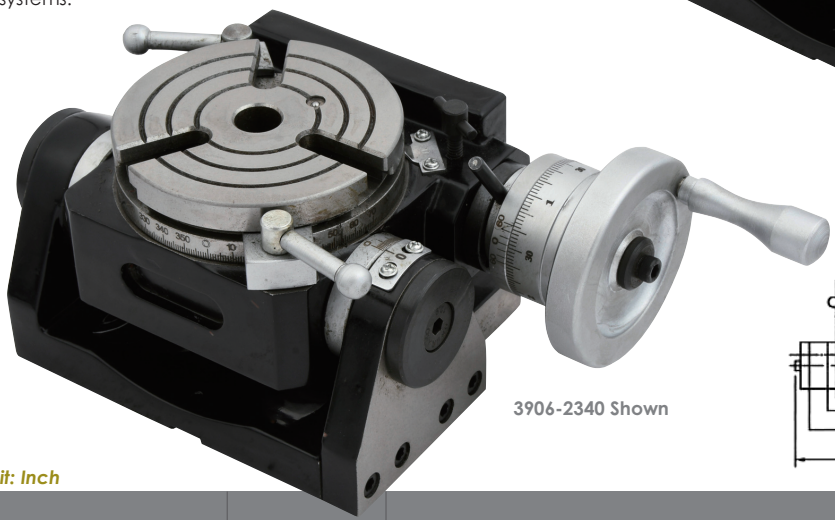
UNIVERSAL TILTING ROTARY TABLES

- **Dual-Axis Adjustment** – Allows both tilting and rotating, enabling complex angular machining.
- **High Precision** – Equipped with graduated dials for precise angular adjustments. The work table is graduated a full 360° and micro collar is in steps of 2" minimum.
- **Robust Construction** – Made of high-quality hardened steel for durability and stability. 90:1 ratio worm is hardened and ground.
- **Multiple Mounting Options** – Can be mounted horizontally or vertically for versatile machining.
- **Fine Tuning Mechanism** – Features micrometric adjustment screws for precise positioning.
- **Locking Mechanism** – Ensures the table remains securely in place once positioned.
- **T-Slots for Clamping** – Provides secure workpiece holding with standard T-slot fixtures.
- **360-Degree Rotation** – Offers full circular motion for efficient indexing and milling.
- **Tilting Range** – Usually tilts from 0° to 90°, with two lock setting screws.
- **Compatibility** – Works with milling machines, drilling machines, and CNC systems.

Universal Tilting Rotary Tables are precision tools used in metalworking and machining operations. They provide enhanced flexibility for positioning workpieces at various angles.

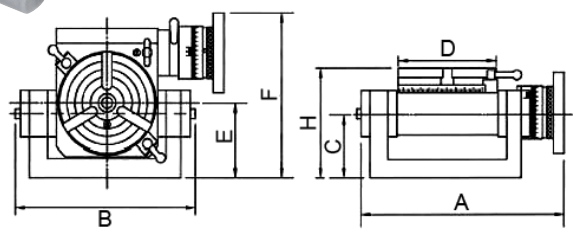


3906-2339 Shown



3906-2340 Shown

Tailstock and Dividing Plates are optional



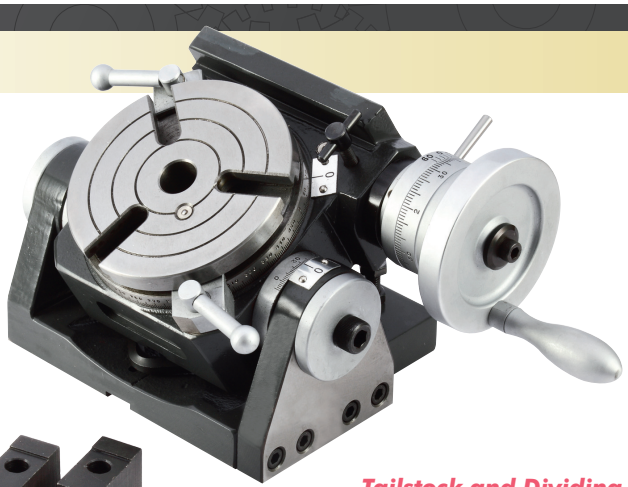
Unit: Inch

Item#	Table Size G	Height OAL H	Height OAL F	Center Hole	Center Height E	OAL A	OAL B	OAL C	Number of T-slots	T-Slot Size	OPTIONAL SUITABLE TAILSTOCK	OPTIONAL SUITABLE DIVIDING PLATE	Weight (lbs.)
3906-2339	4.3	4.61	6.97	2M.T.	3.15	9.0	8.0	2.68	3	0.433	**3906-2406**	**3906-2390**	27
3906-2340	6	4-7/8	7-1/8	2M.T.	3-1/8	11	8-3/8	3.32	4	0.63	**3906-2407**	**3906-2390**	42

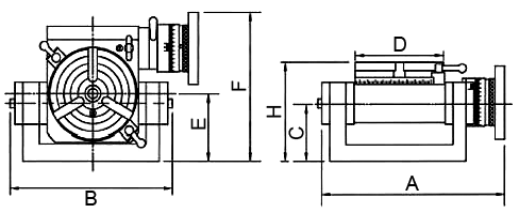
Tailstocks & Dividing Plates Shown on Page 295.

VERTEX® UNIVERSAL TILTING ROTARY TABLES

- **Tilts 0°–90°** – Easily position workpieces for angled drilling, milling, and machining.
- **Rigid, Heavy-Duty Construction** – Maintains accuracy and stability under demanding cutting conditions.
- **360° Precision Rotation** – Graduated handwheel allows smooth, controlled indexing for precise positioning.
- **Versatile Machining Solution** – Ideal for milling, drilling, slotting, and circular machining operations.



MADE IN TAIWAN





Tailstock and Dividing Plates are optional

Unit: Inch

Item#	Table Size G	Height-Over-All H	Height-Over-All F	Center Hole	Center Height E	OAL A	OAL B	OAL C	Number of T-slots	T-Slot Size	OPTIONAL SUITABLE TAILSTOCK	OPTIONAL SUITABLE DIVIDING PLATE	Weight (lbs.)
3900-2338	4.3	4.61"	6.97"	2M.T.	3.15"	9.0	8.0	2.68	3	0.433	**3900-2407**	**3900-2390**	30
3900-2340	8	6.97"	11.14"	3M.T.	5.55"	16.9	17.0	4.37	3	0.551	**3900-2411**	**3900-2392**	110

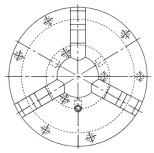
Tailstocks & Dividing Plates Shown on Page 296.

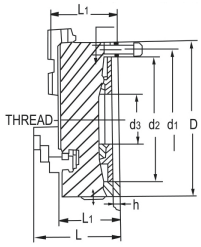
VERTEX® 3-JAW FRONT-MOUNT SELF-CENTER CHUCKS, PLAIN BACK

- Easily mount on table, dividing head, fixture, or indexer.
- Lathe chuck wrench supplied.

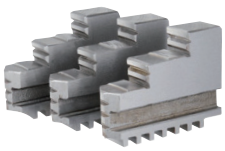
Includes One Set of External Jaws & Internal Jaws

Front mount chucks are designed to be used with rotary tables dividing head and other devices where back mounting chucks can not be used.





MADE IN TAIWAN





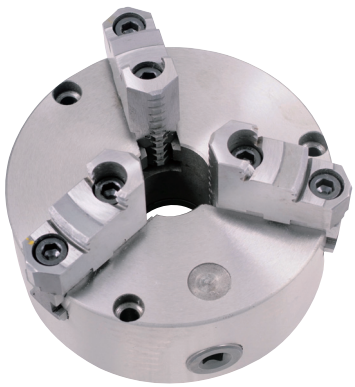
Item#	Chuck Size D (Inch/mm)	For Rotary Table	d1	(Inch) d2	Center Hole d3	L	L1	h	Thread Z-d	Gripping Range O.D. (mm)	I.D.(mm)
3800-5819	3/80	6"	2.60	2.17	0.63	2.6	2.0	0.138	3-M6	2~70	24~64
3800-5820	4/100	6"	3.31	2.83	0.87	2.9	2.2	0.138	3-M8	3~90	32~84
3800-5821	5/130	8"	4.53	3.94	1.18	3.1	2.2	0.138	3-M8	3~110	35~100
3800-5822	6/160	8"	5.59	5.12	1.77	3.7	2.6	0.197	3-M10	3~160	48~150
3800-5823	8/200	10-12"	7.09	6.50	2.75	4.3	3.0	0.197	3-M12	4~180	56~170
3800-5824	10/250	12"+	8.86	8.11	3.15	4.7	3.2	0.197	3-M12	6~220	70~250

3-JAW FRONT-MOUNT SELF-CENTER CHUCKS FOR ROTARY TABLES

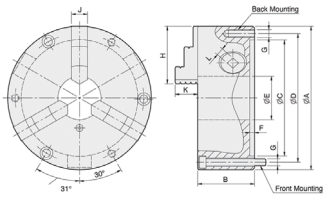
- Plain back.
- Made of high quality steel.
- Hardened and ground.
- Hardened and ground.
- Lathe chuck wrench supplied.

TOP JAWS REVERSIBLE

Front mount chucks are designed to be used with rotary tables and other devices where back mounting chucks can not be used.





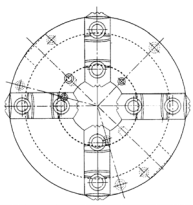


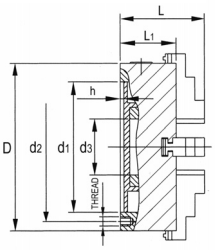
Item#	Chuck Size A	For Rotary Table	D	(Inch) C	B	Center Hole E	Mount Thread G Front	Back
3900-3430	6"	8"	5.51	4.92	2.60	1.575	M8x70	M8x25
3900-3432	8"	10-12"	6.93	6.30	3.00	2.559	M10x80	M10x30
3900-3434	10"	12"+	8.82	7.87	3.42	3.150	M12x85	M12x35
3900-3436	12"	14"+	11.26	10.24	3.86	3.937	M16x100	M16x40

VERTEX® 4-JAW SELF-CENTERING PLAIN BACK CHUCKS – REVERSIBLE TOP JAWS

- **Made in Taiwan** – High Quality & Exceptional Value: Precision manufacturing delivers consistent accuracy and durability comparable to premium brands at a more competitive price point.
- **Self-Centering 4-Jaw Design** – Automatically centers square, round, and irregular workpieces for faster setup and improved accuracy versus independent chucks.
- **Reversible Top Jaws** – Quickly switch between internal and external gripping, expanding clamping range and application flexibility.
- **360° Clamping Capability** – Even jaw movement ensures balanced gripping force for secure, distortion-free holding.
- **Hardened & Precision Ground Components** – Provides long service life, wear resistance, and consistent accuracy in demanding shop environments.
- **High Gripping Force with Stability** – Designed for heavy-duty machining with reduced vibration and improved surface finish.
- **Direct Mount / Back Plate Compatibility** – Easy installation on lathes, rotary tables, and dividing heads for versatile shop use.
- **Durable Construction** – Built for reliability in production, toolroom, and maintenance applications.
- **Includes**: chuck, key and set of six mounting screws (3-M8)

UNIT: Inch/mm







MADE IN TAIWAN

Item#	Chuck Size	For Rotary Table	D	d1	d2	d3	L	L1	h	Gripping Range O.D.	Gripping Range I.D.	Screw	Weight (Lbs.)
3900-0454	6"	8"	6.50/165	5.12/130	6.00/142	1.77/45	4.29/109	2.56/65	0.20/5	0.16~6.50/4~165	2.17~5.91/55~150	3-M8	21
3900-0455	8"	10-12"	7.87/200	6.50/165	7.09/180	2.56/65	4.80/122	2.95/75	0.20/5	0.16~7.87/4~200	2.56~7.87/65~200	3-M10	33
3900-0456	10"	12"+	9.84/250	8.11/206	8.90/226	3.15/80	5.35/136	3.15/80	0.20/5	0.24~9.84/6~250	3.54~9.84/90~250	3-M12	54
3900-0547	12"	14"+	12.4/315	10.24/260	11.22/285	3.94/100	6.18/157	3.54/90	0.24/6	0.29~12.4/10~315	3.94~12.4/100~315	3-M16	101

3-JAW SELF-CENTERING SCROLL CHUCKS WITH BACK PLATE

- **Self-Centering Mechanism** - All three jaws move simultaneously via a scroll plate, ensuring quick and accurate centering of the workpiece.
- **High Clamping Force** - Designed for firm gripping with even force distribution, minimizing workpiece slippage.
- **Hardened & Ground Jaws** - Made from high-grade tool steel, with hardened and precision-ground jaws for durability and accuracy.
- **Interchangeable Jaws** – Includes two sets of jaws (ID & OD) and chuck wrench.
- **Pre-Mounted Back Plate** - Comes with a back plate, making it easier to install on various lathe spindles. Some require machining to fit specific mounts.
- Compatibility with Multiple Spindle Mounts.
- **High Precision & Concentricity** - Manufactured to tight tolerances (e.g., ≤0.05mm runout) for accurate machining.



A 3-Jaw Self-Centering Scroll Chuck with Back Plate is commonly used in lathe and machining applications to securely hold round or hexagonal workpieces.



Item#	Chuck Size	Bolt On Slot.	Center Hole Dia.	Fits Rotary Table
3906-2416	3"	4	0.63"	4"
3906-2417	3"	4	0.63"	5"
3906-2418	4"	4	0.87"	6"

Suitable for Use With Rotary Table

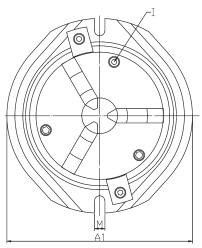
VERTEX® 6" 3 JAW ROTARY CHUCK-SELF CENTERING

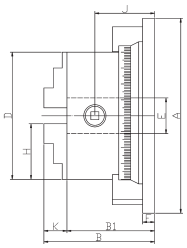
- **Self-centering 3-jaw design** for fast, accurate workpiece setup.
- **360° vernier scale** provides precise positioning and indexing.
- **Includes two sets of jaws** for greater clamping versatility.

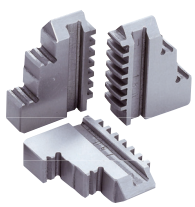
MADE IN TAIWAN

3900-2416









Unit: mm

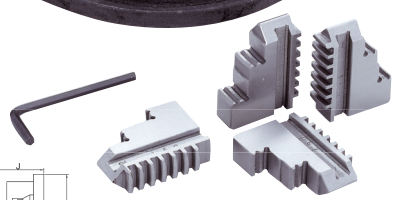
A	A1	B	B1	D	E	F	H	I	J	K	M	Wt.
245	233	139	110	160	45	15	70	3-M8	69	29	14	40 lbs

VERTEX® 8" 4 JAW ROTARY CHUCK-SELF CENTERING

MADE IN TAIWAN

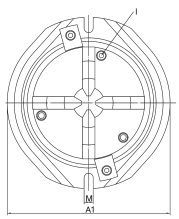


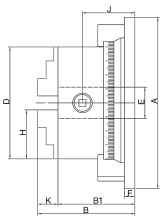
- **Self-centering 4-jaw design** offers secure, repeatable workholding.
- **360° vernier scales** ensure accurate rotational positioning.
- **Includes two sets of jaws** to accommodate a wide range of workpieces.



Limited Supply!

3900-2418





Unit: mm

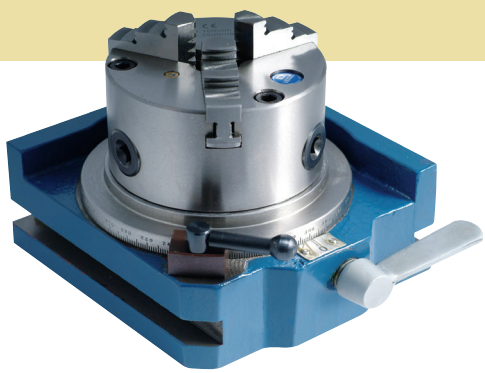
A	A1	B	B1	D	E	F	H	I	J	K	M	Wt.
305	270	159	125	200	65	20	86	3-M10	75	34	18	67 lbs

4" SUPER RAPID INDEXERS

- Simple and rapid operation
- 4" 3-jaw chuck give a big range clamping capacity
- 24 position index (15° increments)
- 1° table scale for angle indexing
- Center hole 1.18" dia.
- Horizontal and vertical operation
- 2 sets of jaws (Internal & External).

HHIP
100mm Indexer
3906-2414
Weight: 22 Lbs.

VERTEX®
MADE IN TAIWAN
4" Indexer
3900-2414
Weight: 23 Lbs.



VERTEX® 3-JAW SELF-CENTERING SUPER THIN CHUCK - REVERSIBLE TOP JAWS

*Ideal for lathes, grinders, rotary tables, indexing applications, and precision machining where **a low-profile chuck, strong grip, and fast centering action are required.***

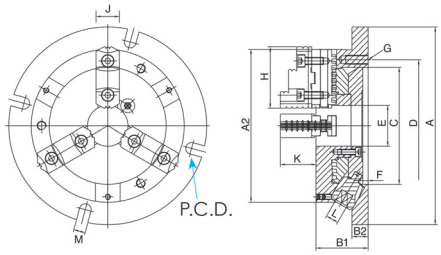
- **Made in Taiwan** – High Quality & Exceptional Value: Precision manufacturing delivers consistent accuracy and durability comparable to premium brands at a more competitive price point.
- **Ultra-Thin Low-Profile Design** – Maximizes machine clearance and allows machining of longer workpieces with less spindle interference.
- **3-Jaw Self-Centering Operation** – Quickly centers round or hex stock for faster setups and improved productivity.
- **Reversible Top Jaws Included** – Expands gripping range for holding both smaller and larger diameter workpieces.
- **Flanged Body Design** – Makes loading and unloading parts easier while improving mounting convenience.
- **30° Handle-to-Body Angle** – More comfortable wrench rotation for smoother tightening and faster operation.
- **90° Jaw Slot Positioning** – Convenient jaw layout improves access and setup efficiency.
- **Strong Gripping Force** – Provides secure clamping for turning, grinding, and precision machining operations.

MADE IN TAIWAN



REVERSIBLE TOP JAWS





Unit: Inch

Item#	Chuck Size	A1	A2	B1	B2	C	D	Center Hole E	F	G Z-d	H	J	K	L	M	P.C.D.	Gripping Force (kgf)	Gripping Capacity O.D. Range	Gripping Capacity I.D. Range	Weight (Lbs.)
3900-2426	**6"**	8.66	6.69	2.28	0.71	5.12	5.79	1.77	0.24	3-M10	2.68	1.02	1.57	0.39	0.51	7.60	1800	0.31~6.30	1.89~5.91	28
3900-2428	**8"**	10.63	8.27	2.56	0.79	6.10	6.77	2.36	0.24	3-M10	3.23	1.10	1.69	0.43	0.51	9.13	2250	0.43~7.87	2.44~7.49	45

VERTEX® SIMPLE INDEXING SPACERS WITH 3-JAW CHUCK & MASKING PLATES

*Ideal for **milling, drilling, jig boring, slotting, grinding, bolt-hole circles, gear blank work, and repetitive indexing jobs** requiring fast and accurate part rotation.*

- **Made in Taiwan** – High Quality & Exceptional Value: Precision manufacturing delivers consistent accuracy and durability comparable to premium brands at a more competitive price.
- **Fast, Accurate Indexing** – Designed for rapid indexing in 2, 3, 4, 6, 8, 12, and 24 divisions for repetitive machining operations.
- **24-Position Hardened Master Plate** – Includes precision indexing plate with additional 15° increments for expanded positioning capability.
- **360° Graduated Rotation Scale** – Allows full circular positioning with clear degree markings for precise angular setups.
- **Includes 7 Masking Plates** – Quickly change divisions for fast setup and improved shop efficiency.
- **Complete with 3-Jaw Chuck** – Self-centering chuck securely holds round parts for drilling, milling, grinding, and jig boring.
- **Rigid Cast Construction** – Heavy-duty body provides stability and vibration resistance during machining.
- **Compact Bench / Machine Mount Design** – Easy to mount on mills, drill presses, grinders, and worktables.

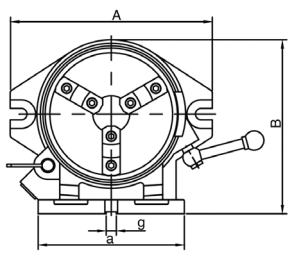


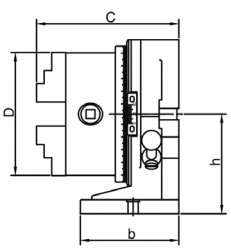
SIMPLE INDEX WITH 3-JAW CHUCK & MASKING PLATES



Masking Plates: 2, 3, 4, 6, 8, 12 & 24

MADE IN TAIWAN





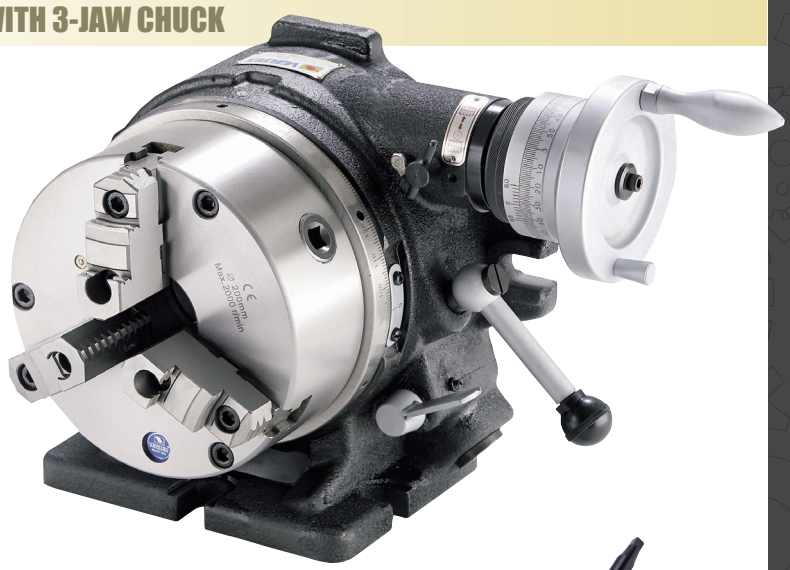
ACCURACY	
Parallelism of table surface to base	0.02mm/per 100mm
True running of axial movement of table surface	0.03mm/per 100mm
True running of center boss	0.02mm/per 100mm
Squareness of base to angle face	0.02mm/per 100mm

Unit: Inch

Item#	Table Size	Chuck Center Hole	A	B	C	D	a	b	h	e	f	g	Capacity of Inner Jaws (Dia.)	Capacity of Outer Jaws (Dia.)	Diameter of Hole (Turret)	Diameter of Hole (Chuck)	Weight (lbs.)
3900-2319	**6**	1-23/32	9.96	8.86	7.05	6.30	7.36	4.53	5.11	4.41	2.6	.63	2.17~5.71	0.12~6.30	1.73	1.73	59
3900-2322	**8**	2-15/32	12.52	10.79	8.23	7.87	8.66	6.10	6.10	4.99	3.0	.63	2.56~7.87	0.16~7.87	2.48	2.28	103

VERTEX® SUPER INDEXING SPACERS - WITH 3-JAW CHUCK

- Combines direct indexing and indirect indexing capabilities for versatile machining operations including milling, drilling, boring, slotting, and circular indexing.
- **High-precision worm gear drive** with 90:1 reduction ratio provides smooth rotation and accurate positioning for demanding machining applications.
- **Super indexing system** allows ultra-fine indexing increments beyond standard dividing heads for increased machining flexibility.
- Includes 24-hole disengaging indexing plate for quick direct indexing operations with 2, 3, 4, 6, 8, 12, and 24 divisions.
- Can be converted into a vertical/horizontal rotary table when the chuck is removed, increasing machine shop versatility.
- **Micro-adjustable vernier collar** allows precise readings down to seconds for accurate angular positioning.
- **Heavy-duty cast construction** minimizes vibration and improves rigidity during machining operations.
- Compatible with optional dividing plates and tailstocks for advanced indexing applications.
- **Ideal for** toolrooms, maintenance shops, production machining, fixture building, and precision milling applications.
- **Includes:** 3-jaw chuck, masking plates, and face plate for immediate setup and expanded workholding capability.



MADE IN TAIWAN

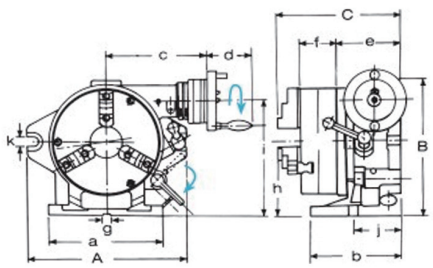






6" Table	8" Table
3900-2318	3900-2321
Weight: 97 Lbs.	Weight: 172 Lbs.

SPECIFICATIONS	ITEM 3900-2318	ITEM 3900-2321
Chuck Size	6"	8"
Inner Jaw Clamping Range	2.17-5.91" (55-150 mm)	2.68-7.09" (68-180 mm)
Outer Jaw Clamping Range	0.16-6.30" (4-160 mm)	0.31-7.48" (8-190 mm)
Chuck Through Hole	1.73" (44 mm)	2.28" (58 mm)
Rotary Table Center Height	1.73" (44 mm)	2.48" (63 mm)
Face Plate Diameter	8.00" (203 mm)	10.00" (254 mm)
Face Plate Thickness	1.97" (50 mm)	2.28" (58 mm)
Degree Per Handle Rotation	4°	4°
Micro Collar Reading	2'	1'
Vernier Reading	20 Seconds	10 Seconds
Gear Ratio	1:90	1:90



DIMENSIONS: *Unit: Inch/mm*

Item#	A	B	C	a	b	c	d	e	f	g	h	i	j	k
3900-2318	9.84/250	9.25/235	8.70/221	6.30/160	7.24/184	3.23/82	4.41/112	2.60/66	0.63/16	5.12/130	5.31/135	7.32/186	3.15/80	0.71/18
3900-2321	12.20/310	11.22/285	9.57/243	7.91/201	9.13/232	3.82/97	4.92/125	2.95/75	0.63/16	6.10/155	6.02/153	9.13/232	3.78/96	0.71/18

See page 296 for Tailstocks.

VERTEX® DIVIDING PLATES - For 6 & 8" Indexing Spacer

- Provides accurate indexing for milling, drilling, and machining operations.
- Multiple hole patterns increase indexing versatility and setup options.
- Complete set includes plates, crank handle, sector, screws, and washer.
- Made in Taiwan for dependable accuracy and long-lasting performance.



MADE IN TAIWAN

Fits 6&8" Indexing Spacer
3900-2396

SET INCLUDES:

Plate A - 26, 30, 34, 38, 41, 44, 47, 51, 57, 28, 32, 37, 39, 43, 46, 49, 53, 59

Plate B - 62, 67, 71, 77, 81, 87, 91, 97, 63, 69, 73, 83, 89, 93, 99

VERTEX® REPLACEMENT PARTS - For 8" Indexing Spacer

- Precision-machined components ensure smooth, accurate indexing performance.
- Hardened steel construction provides long service life and wear resistance.
- Direct replacement design restores performance without modifying the spacer.
- Made in Taiwan for dependable quality and consistent fitment.



MADE IN TAIWAN



Worm Metal
3900-2323

Worm Gear
3900-2324

VERTEX® SEMI-UNIVERSAL DIVIDING HEAD SETS

Precision Indexing for Milling, Gear Cutting & Angular Machining

- **Semi-universal design** allows direct and indirect indexing for accurate machining of gears, splines, bolt circles, and flutes.
- **Hardened and ground worm gear system** provides smooth rotation with minimal backlash for precise indexing performance.
- **40:1 worm ratio** enables divisions from 2 to 50 and many additional indexing combinations up to 380.
- **Swivel head tilts** from 10° below horizontal to 90° vertical for versatile machining angles and setups.
- **Precision-ground spindle** and taper roller bearings improve rigidity, concentricity, and machining accuracy.
- **Threaded spindle nose** accepts optional front-mount 3-jaw chucks for expanded workholding flexibility.
- **Made in Taiwan** for dependable quality, durability, and long service life in toolroom and production applications.
- **Includes:** dividing plates, tailstock, center, crank handle, and accessories for complete indexing capability.

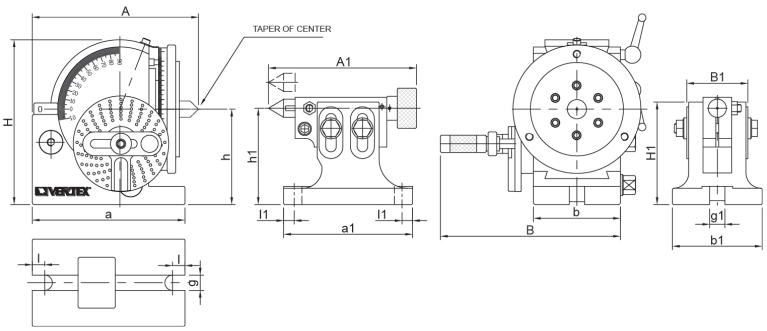
MADE IN TAIWAN

7-1/2" SWING
3800-5810
Weight: 55 Lbs.

10" SWING
3800-5812
Weight: 80 Lbs.







SPECIFICATIONS	ITEM 3800-5810	ITEM 3800-5812
Swing	7-1/2"	10"
Center Height	3-15/16"	5-3/64"
Worm Ratio	40:1	40:1
Spindle Through Hole	0.709" (18 mm)	0.787" (20 mm)
Spindle Taper	MT-2	MT-3
Dividing Plates Included	A, B, C	A, B, C
Optional Chuck Size	4" or 5"	5" or 6"

HEADSTOCK DIMENSIONS:

Unit: Inch(mm)

Item#	A	B	H	I	a	b	g	h	Taper of Center	Spindle Through Hole
3800-5810	6.97" (177)	7.40" (188)	6.81" (173)	0.51" (13)	6.30" (160)	3.58" (91)	0.63" (16)	3.94" (100)	MT-2	0.71" (18)
3800-5812	9.65" (245)	9.06" (230)	8.66" (220)	0.75" (19)	8.07" (205)	4.49" (114)	0.63" (16)	5.04" (128)	MT-3	0.79" (20)

DIVIDING PLATE A B C

Numbers of Hole	Plate A	15	16	17	18	19	20
	Plate B	21	23	27	29	31	33
	Plate C	37	39	41	43	47	49



OPTIONAL FRONT-MOUNT 3-JAW CHUCKS

Item#	Chuck Size
3800-5820	4"
3800-5821	5"
3800-5822	6"

Chuck Details Shown on Page 317.

TAILSTOCK DIMENSIONS:

Unit: Inch(mm)

Item#	A1	B1	H1	I1	a1	b1	h1	g1	Tailstock Travel
3800-5810	6.10"-7.09" (155-180)	2.52" (64)	4.21" (107)	0.43" (11)	5.28" (134)	3.70" (94)	3.15"-4.25" (80-108)	0.63" (16)	0.16" (4)
3800-5812	6.69"-7.68" (170-195)	2.52" (64)	5.91" (150)	0.43" (11)	6.10" (155)	4.33" (110)	5.91"-4.53" (150-115)	0.63" (16)	0.21" (5.3)

VERTEX® 10-1/2" SEMI-UNIVERSAL DIVIDING HEAD SET

Precision Indexing & Rotary Positioning System

- **Semi-universal dividing head** allows direct, indirect, and differential indexing for precise machining of gears, splines, bolt circles, radii, and complex angular work.
- **Hardened and ground worm gear and spindle** provide smooth rotation, high accuracy, and long service life under heavy machining conditions.
- **Large 10-1/2" swing** capacity accommodates larger workpieces while maintaining excellent rigidity and positioning accuracy.
- **MT4 spindle taper** accepts standard tooling and centers for versatile setup capability in toolrooms and production environments.
- **Precision taper roller bearings** support the spindle for improved concentricity, reduced vibration, and smoother cutting performance.
- **40:1 worm gear ratio** enables accurate indexing divisions from 2 to 50 and many divisions up to 380.
- **Spindle can be locked** at multiple angles from 10* below horizontal to 90° vertical for angular milling, drilling, and inspection applications.
- **Adjustable tailstock** supports longer workpieces between centers for improved rigidity and accuracy during machining.
- **Made in Taiwan** for high-quality construction, precision machining, and dependable shop performance.
- **Optional front-mount chucks** allow rapid conversion for chuck-held applications without additional machining.
- **Includes:** 3-jaw mounting plate, carrier clamp set for quick setup and secure workholding and dividing plates to expand indexing versatility for a wide range of machining operations.

MADE IN TAIWAN

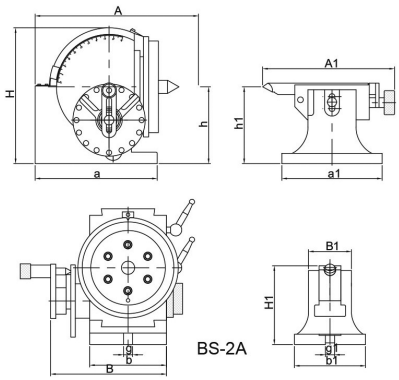






BS-2A
10-1/2" SWING
3800-5814
Weight: 106 Lbs.

SPECIFICATIONS	
Swing	10-1/2" (267mm)
Center Height (H)	5.22" (133mm)
Hole Through Spindle	0.945" (24mm)
Spindle Taper	MT4
Worm Gear Ratio	40:1
Divisions	2 to 50 and many up to 380
A/B/H Dimensions	11.22"/7.95"/9.33" (285/202/237mm)
a/b Dimensions	8.39"/5.28" (213/134mm)
Optional Chuck Sizes	6"/8"
Tailstock Dimensions (A1 x B1 x H1)	8.6"x4.8"x5.5" (218x124x139mm)
g1 Dimension	0.63" (16mm)



BS-2A

HEADSTOCK DIMENSIONS:

Unit: Inch(mm)

A	B	H	I	a	b	g	h	Taper of Center	Spindle Through Hole
11.22" (285)	7.95" (202)	9.33" (237)	0.79" (20)	8.39" (213)	5.28" (134)	0.63" (16)	5.28" (134)	MT4	0.98" (25)

DIVIDING PLATE A B C

Numbers of Hole	Plate A	15	16	17	18	19	20
	Plate B	21	23	27	29	31	33
	Plate C	37	39	41	43	47	49



OPTIONAL FRONT-MOUNT 3-JAW CHUCKS

Item#	Chuck Size
3800-5822	6"
3800-5823	8"

Chuck Details Shown on Page 317.

TAILSTOCK DIMENSIONS:

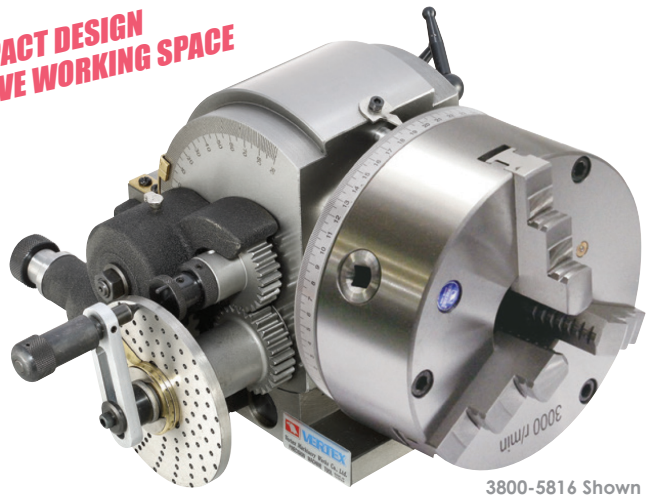
Unit: Inch(mm)

A1	B1	H1	I1	a1	b1	h1	g1
8.58" (218)	2.91" (74)	5.47" (139)	0.59" (15)	6.89" (175)	4.88" (124)	5.28" (134)	0.63" (16)

VERTEX® 10-1/2" UNIVERSAL DIVIDING HEAD SETS

- **Made in Taiwan** – Premium Quality, Exceptional Value: Precision built with hardened and ground components for long service life, smooth rotation, and accuracy comparable to top-tier brands at a competitive price point.
- **40:1 Worm Gear Ratio for Accurate Indexing** – Delivers precise, repeatable divisions using direct, indirect, and differential indexing for complex machining applications.
- **Wide Indexing Range & Gear Cutting Capability** – Ideal for indexing divisions from 2 to 50 and most numbers up to 380; designed for all types of gear cutting and precision machining.
- **Hardened & Ground Worm and Spindle** – Provides high rigidity, reduced backlash, and consistent accuracy for gear cutting, slotting, and detailed work.
- **Spiral Milling Capability** – Allows spiral and helical machining by transmitting table feed to the worm shaft for advanced operations.
- **Swivel Head (10° Below Horizontal to 90° Vertical)** – Enables machining at multiple angles for increased versatility in angular and complex setups.
- **Direct Indexing Capability (2, 3, 4, 6, 8, 12, 24 Divisions)** – Quick, calculation-free positioning for common divisions to reduce setup time and improve efficiency.
- **Threaded Spindle Nose for Versatile Workholding** – Supports mounting of chucks and fixtures for a wide range of applications.
- **Front-Mount 8" 3-Jaw Chuck Included** – Provides a ready-to-use solution for holding round and irregular workpieces, reducing additional tooling costs.
- **Complete Set with Accessories** – Includes dividing head, adjustable tailstock, dividing plates, change gears, carrier arms, 3-jaw chuck, and center—everything needed for immediate setup, including differential indexing and spiral cutting operations.

COMPACT DESIGN TO SAVE WORKING SPACE



3800-5816 Shown

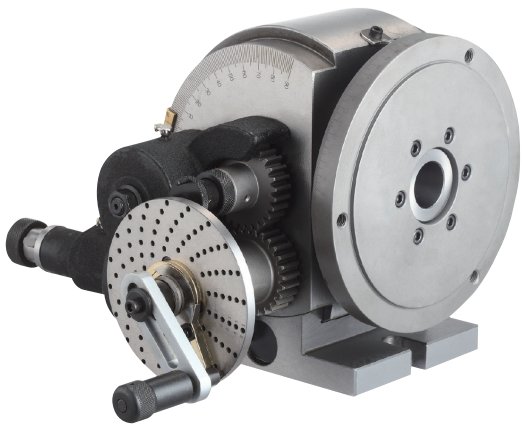
8" 3 JAW CHUCK INCLUDED

MADE IN TAIWAN

COMPACT VERSION
BS-2A-J-8
10-1/2" SWING
WITH 8" 3-JAW CHUCK
3800-5816
Weight: 150 Lbs.

MAX. VARIATION
True Running Center:.....0.0006"
True Running of Inside Taper of Dividing Spindle Measured at Spindle Nose:.....0.0006"
Alignment of Dividing Head & Tailstock Vertical & Horizontal Plane:.....0.0008"





OPTIONAL FRONT MOUNT CHUCKS

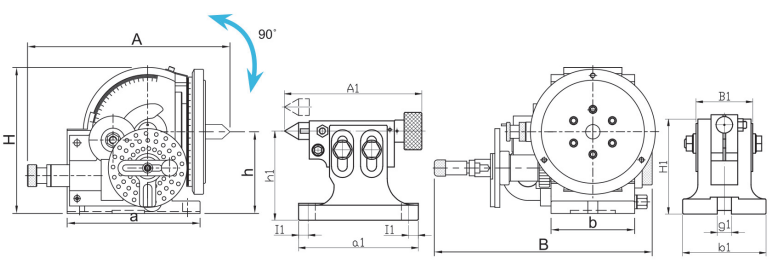
6" 3-Jaw Chuck(Item #3800-5822)
Machine To Adapter Plate To Fit.
8" 3-Jaw Chuck(Item #3800-5823)
Fits on Dividing Head-No Machining Required.



BS-2
10-1/2" SWING
WITHOUT CHUCK
3800-5815
Weight: 144 Lbs.

DIVIDING PLATE A B C

Numbers of Hole	Plate A	15	16	17	18	19	20
	Plate B	21	23	27	29	31	33
	Plate C	37	39	41	43	47	49



SPECIFICATIONS-TAILSTOCK

A1	B1	H1	I1	a1	b1	h1	g1
6.69~7.68"	2.52"	5.91"	0.43"	6.10"	4.33"	4.53~5.91"	0.63"

SPECIFICATIONS-HEAD STOCK

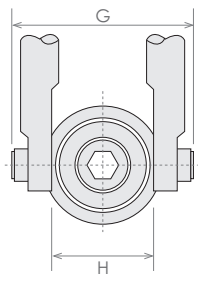
Swing	A	B	H	I	a	b	Center Height (h)	Spindle Taper	Spindle Hole (Dia.)
10-1/2"	11.22"	7.80"	9.33"	0.79"	8.39"	5.28"	5.28"	4MT	0.945"

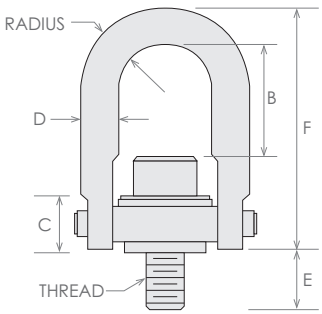
SAFETY SWIVEL HOIST RINGS

200% PROOF-LOAD TESTED AND CERTIFIED WITH TRACEABLE SERIAL NUMBER

- Swivels 360° - pivots 180°
- Material: Alloy Steel
- Safety factor: 5:1
- Finishi: Black Oxide (Also available: Cadmium Plated, Electroless Nickel Plated, Zinc Plated)
- Magnetic partical inspected.
- Certified heat treatment.
- Rated at 100% from 0° to 90°
- Fatigue tested to 20,000 cycle at 1.5 times the rated load
- Thread: Longer Projection and Fine Threads Available.
- Comforms to CE.
- **Meets or exceeds the requirements of ASME B30.26**







INCH THREAD

Rated Loads(Lbs)	Thread Size	A	C	D	E	Standard U-Bar Item#	B	F	G	H	Torque Ft/#	Wt. (Lbs)
600	1/4~20	0.43	0.71	3/8	0.54	**8004-6100**	1.27	2.67	1.84	1.00	6	0.3
800	5/16~18	0.43	0.71	3/8	0.54	**8004-6104**	1.27	2.67	1.84	1.00	7	0.3
1,000	3/8~16	0.43	0.71	3/8	0.54	**8004-6106**	1.27	2.67	1.84	1.00	12	0.3
2,500	1/2~13	0.70	0.93	1/2	1.07	**8004-6602**	1.84	3.77	2.58	1.49	28	1.0
2,500	1/2~13	0.88	1.22	3/4	0.78	**8004-6008**	2.31	4.78	3.52	1.99	28	2.6
4,000	5/8~11	0.88	1.22	3/4	1.03	**8004-6004**	2.18	4.78	3.52	1.99	60	2.6
5,000	3/4~10	0.88	1.22	3/4	1.03	**8004-6014**	2.06	4.78	3.52	1.99	100	3.0
7,000	3/4~10	1.40	1.71	1	1.54	**8004-6206**	3.06	6.52	5.14	3.00	100	7.0
8,000	7/8~9	1.40	1.71	1	1.04	**8004-6202**	2.93	6.52	5.14	3.00	160	7.0
10,000	1~8	1.40	1.71	1	1.29	**8004-6210**	2.81	6.52	5.14	3.00	230	7.5
10,000	1-1/8~7	1.40	1.71	1	2.29	**8004-6216**	2.69	6.52	5.14	3.00	230	7.5
10,000	1-1/8~8	1.40	1.71	1	2.29	**8004-6217**	2.69	6.52	5.14	3.00	230	7.5
15,000	1-1/4~7	1.75	2.11	1-1/4	1.89	**8004-6802**	4.12	8.73	6.50	3.76	470	14.0
20,000	1-3/8~6	2.00	2.40	1-1/2	2.50	**8004-6702**	5.50	10.20	7.46	4.31	540	23.0
24,000	1-1/2~6	2.25	2.81	1-3/4	3.20	**8004-6404**	6.41	12.47	8.55	4.87	800	34.0
24,000	1-3/4~5	2.25	2.81	1-3/4	3.20	**8004-6408**	6.16	12.47	8.55	4.87	800	34.0
30,000	2~4-1/2	2.25	2.81	1-3/4	3.20	**8004-6400**	5.91	12.47	8.55	4.87	800	36.0
50,000	2-1/2~4	3.00	4.09	2-1/4	4.00	**8004-7006**	8.03	16.87	11.67	6.52	2100	88.0

STAINLESS STEEL AVAILABLE.

METRIC THREAD

Rated Loads(Lbs)	Thread Size	A	C	D	E	Standard U-Bar Item#	B	F	G	H	Torque Ft/#	Wt. (Lbs)
400	M8x1.25	11	18	10	13	**8004-6912**	32	68	47	25	9	0.4
500	M10x1.50	11	18	10	18	**8004-6916**	30	68	47	25	16	0.4
1,050	M12x1.75	18	24	13	27	**8004-6608**	48	96	66	38	37	1.0
1,050	M12x1.75	22	30	19	19	**8004-6924**	60	121	89	51	37	2.5
1,050	M14x2.00	22	30	19	29	**8004-6928**	58	121	89	51	40	2.5
1,900	M16x2.00	22	30	19	29	**8004-6930**	56	121	89	51	80	2.7
2,150	M20x2.50	22	30	19	34	**8004-6936**	52	121	89	51	135	6.7
3,000	M20x2.50	36	43	25	32	**8004-6942**	78	166	131	76	135	7.0
4,200	M24x3.00	36	43	25	37	**8004-6948**	74	166	131	76	311	15.0
7,000	M30x3.50	45	54	32	42	**8004-6956**	106	222	165	95	637	15.0
7,000	M33x3.50	45	54	32	67	**8004-6960**	103	222	165	95	637	23.0
10,000	M33x3.50	50	62	38	58	**8004-6961**	140	259	189	109	637	35.0
11,000	M36x4.00	57	71	44	63	**8004-6966**	166	317	217	124	1085	36.0
12,500	M42x4.50	57	71	44	83	**8004-6968**	160	317	217	124	1085	38.0
13,500	M48x5.00	57	71	44	83	**8004-6970**	154	317	217	124	1085	38.0
13,500	M56x5.50	57	71	44	88	**8004-6973**	154	317	217	124	1085	38.0
22,300	M64x6.00	76	103	57	101	**8004-6972**	204	428	296	165	2847	86.0

STAINLESS STEEL AVAILABLE.

5C COLLETS & SETS

5C ROUND COLLETS & SETS

- Made of high grade tool steel.
- Internal and external threaded.
- Hardened and precision ground.

9 PC SET, Metric
3903-0012
4 to 20mm by 2mm

14 PC SET, Metric
3903-0014
12 to 25mm by 1mm

24 PC SET, Metric
3903-0016
3 to 26mm by 1mm



6 PC SET, Inch
3900-0012
1/8~3/4 by 8ths



17 PC SET, Inch
3900-0013
1/16~1-1/16 by 16ths

33 PC SET, Inch
3900-0014
1/16~1-1/16 by 32nds

69 PC SET, Inch
3900-1112
1/16~1-1/8 by 64ths

Item#	Size (Inch)	Item#	Size (Inch)
3900-0011	1/16	3900-1136	39/64
3900-1101	5/64	3900-1137	5/8
3900-1102	3/32	3900-1138	41/64
3900-1103	7/64	3900-1139	21/32
3900-1104	1/8	3900-1140	43/64
3900-1105	9/64	3900-1141	11/16
3900-1106	5/32	3900-1142	45/64
3900-1107	11/64	3900-1143	23/32
3900-1108	3/16	3900-1144	47/64
3900-1109	13/64	3900-1145	3/4
3900-1110	7/32	3900-1146	49/64
3900-1111	15/64	3900-1147	25/32
3900-1113	1/4	3900-1148	51/64
3900-1114	17/64	3900-1149	13/16
3900-1115	9/32	3900-1150	53/64
3900-1116	19/64	3900-1151	27/32
3900-1117	5/16	3900-1152	55/64
3900-1118	21/64	3900-1153	7/8
3900-1119	11/32	3900-1154	57/64
3900-1120	23/64	3900-1155	29/32
3900-1121	3/8	3900-1156	59/64
3900-1122	25/64	3900-1157	15/16
3900-1123	13/32	3900-1158	61/64
3900-1124	27/64	3900-1159	31/32
3900-1125	7/16	3900-1160	63/64
3900-1126	29/64	3900-1161	1
3900-1127	15/32	3900-1162	1-1/64
3900-1128	31/64	3900-1163	1-1/32
3900-1129	1/2	3900-1164	1-3/64
3900-1130	33/64	3900-1165	1-1/16
3900-1131	17/32	3900-1166	1-5/64
3900-1132	35/64	3900-1167	1-3/32
3900-1133	9/16	3900-1168	1-7/64
3900-1134	37/64	3900-1169	1-1/8
3900-1135	19/32		

HARLINGEN® HIGH PRECISION 5C COLLETS

- Clamping nose HRC55, body HRC40 and thread HRC25.
- Engineered for precise machining.
- Roughness Ra 0.4
- Internal and external thread machining after heat treatment reduces deformation, burrs and provides you with smooth threaded engagement.
- "STEP" Hardened and Ground Surface throughout protects the connection with spindle, also guarantees high accuracy, durability and long tool life.





Run-out accuracy
≤ 0.0006 INCHES at 3xD

MADE OF HIGH GRADE TOOL STEEL

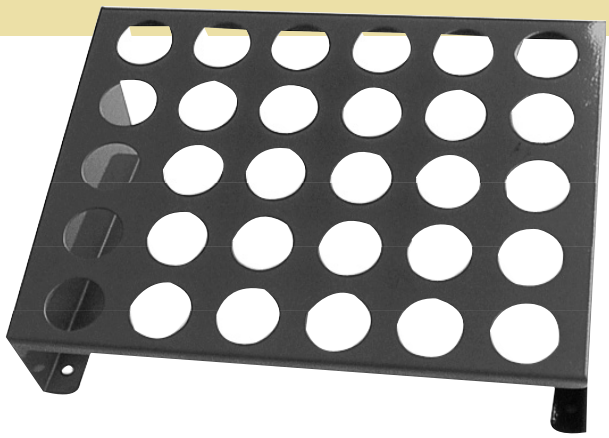
Item#	Size	Item#	Size
9742-3003	1/16"	9742-3038	39/64"
9742-3005	3/32"	9742-3039	5/8"
9742-3006	7/64"	9742-3040	41/64"
9742-3007	1/8"	9742-3041	21/32"
9742-3008	9/64"	9742-3042	43/64"
9742-3009	5/32"	9742-3043	11/16"
9742-3010	11/64"	9742-3044	45/64"
9742-3011	3/16"	9742-3045	23/32"
9742-3012	13/64"	9742-3046	47/64"
9742-3013	7/32"	9742-3047	3/4"
9742-3014	15/64"	9742-3048	49/64"
9742-3015	1/4"	9742-3049	25/32"
9742-3016	17/64"	9742-3050	51/64"
9742-3017	9/32"	9742-3051	13/16"
9742-3018	19/64"	9742-3052	53/64"
9742-3019	5/16"	9742-3053	27/32"
9742-3020	21/64"	9742-3054	55/64"
9742-3021	11/32"	9742-3055	7/8"
9742-3022	23/64"	9742-3056	57/64"
9742-3023	3/8"	9742-3057	29/32"
9742-3024	25/64"	9742-3058	59/64"
9742-3025	13/32"	9742-3059	15/16"
9742-3026	27/64"	9742-3060	61/64
9742-3027	7/16"	9742-3061	31/32
9742-3028	29/64"	9742-3062	63/64
9742-3029	15/32"	9742-3063	1
9742-3030	31/64"	9742-3064	1-1/64"
9742-3031	1/2"	9742-3065	1-1/32"
9742-3032	33/64"	9742-3066	1-3/64"
9742-3033	17/32"	9742-3067	1-1/16"
9742-3034	35/64"	9742-3068	1-5/64"
9742-3035	9/16"	9742-3069	1-3/32"
9742-3036	37/64"	9742-3070	1-7/64"
9742-3037	19/32"	9742-3071	1-1/8"

30 PC 5C COLLET SET WITH RACK



RACK SHOWN
WITH 30PC 5C COLLET SET





30 PC 5C COLLET SET:

- 1/8 to 1-1/32" by 32nds 30 Piece 5C Collet Set
- Made of high grade tool steel.
- Hardened and precision ground.
- Internal and external thread.

30 PC SET WITH RACK
1/8~1-1/32 by 32nds
3903-0030
Weight: 21 Lbs.

5C COLLET RACK:

- Made of sheet metal with baked enamel paint finish.
- Hangs on wall or machine, or sets on a shelf or work bench for quick access.
- Footprint: 12x9"

[redacted] 8 PC COLLET RACK

- Holds 8 collets 5C, ER32 or others.
- Made from durable ABS material, heavy duty.
- Supplied with mounting hardware.
- 4 mounting holes: 3.5" and 5.5" apart.

MADE IN TAIWAN

3900-1609
Weight: 1 Lbs.



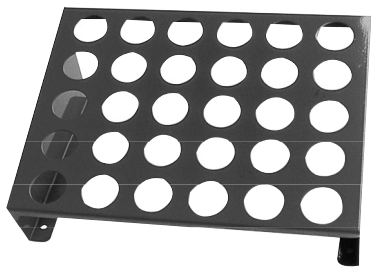
COLLETS NOT INCLUDED

30 PC 5C COLLET RACK

- Baked enamel paint finish.
- Hangs on wall or machine, or sets on a shelf or work bench.

HOLDS 30 PC 5C COLLETS (Not Included)

3900-1602
Weight: 3 Lbs.



FOOTPRINT: 12 x 9"

6 PC 5C COLLET SET WITH RACK

- HHIP 1/8 to 3/4" by 8ths 6 Piece 5C Collet Set with VERTEX 5C Collet Rack
- These collets are hardened and precision ground and made of high grade tool steel.
- The collets are internally and externally threaded.
- The VERTEX collet rack holds 8 collets including 5C, ER32 and other similar sizes.
- The rack is made from heavy duty, durable ABS.
- The rack includes 4 mounting holes that are 3.5" and 5.5" apart & is supplied with mounting hardware.





6 PC Set with Rack
9999-0047
Weight: 5 Lbs.

Pro-Series 15 PC 5C ROUND COLLET SET

- **Guaranteed T.I.R: <0.0005".**
- Made of high grade tool steel.
- Hardened and precision ground.
- Internal and externally threaded.
- Set includes 1/8 ~ 1" x 16ths.

HHIP PRO-SERIES

15 PC SET
1/8 ~ 1" by 16ths
3900-1170
Weight: 16 Lbs.



5C COLLETS & ACCESSORIES

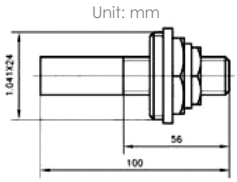
5C ADJUSTABLE COLLET STOP

- Fully threaded adjustment design allows precise part length positioning for accurate repeat machining operations. Thread size: 3/8"-24.
- Durable steel construction withstands repeated shop use for long-lasting performance and reliability.
- Fits internally threaded 5C collets for fast setup on lathes, grinders, and CNC turning applications.
- Adjustable stop helps improve production consistency while reducing setup time and operator error.



3900–1615

Unit: mm

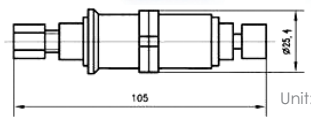


5C COLLET STOP WITH TIPS - UNIVERSAL

- Universal stop system speeds up repetitive machining operations and improves production efficiency.
- Compact design fits standard 5C collets while allowing fast adjustment for varying part lengths.
- Helps maintain consistent machining depth and repeatability during production runs.
- Includes: 5C collet stop, 2 static tips and 2 spring-loaded ejector parts for versatile workpiece support. Tip sizes under 1/4" and 5/8".

3900–1616





Unit: mm

5C COLLET WRENCH

- Simplifies quick installation and removal of 5C collets from CNC lathes and turning machines.
- Steel body construction provides strength and durability for everyday shop use.
- Comfortable grip design improves operator control during tightening and loosening operations.
- Reduces setup time and helps prevent damage to collets and spindle noses.



3900–1617

5C ER-32 COLLET CHUCK

- Converts standard 5C systems to accept ER-32 collets for expanded tooling flexibility.
- Precision ground and hardened construction ensure excellent concentricity and long service life.
- Low runout tolerance improves machining accuracy for milling, drilling, and tool holding applications.
- Includes half-moon spanner and accepts standard 5C drawbar systems for easy installation.

3900–5099



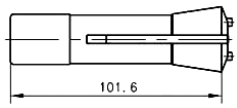
5C EMERGENCY COLLETS

- Soft collet design can be machined to custom shapes for holding delicate, odd-shaped, or non-standard workpieces.
- Available in steel, brass, and nylon to match different workholding and surface protection requirements.
- Internal and external threading allows versatile fixturing and custom machining applications.
- Ideal for precision secondary operations where custom gripping accuracy is required.



Item#	Material
3900-1611	Steel
3900-1612	Brass
3900-1613	Nylon

Unit: mm



5C PRECISION HEX COLLETS

- Precision-ground hex bore securely holds hex stock for milling, grinding, indexing, and secondary operations.
- Hardened high-grade tool steel construction provides long wear life and excellent gripping accuracy.
- Internal and external threading increases compatibility with standard 5C collet systems and accessories.
- Accurate concentricity improves machining precision and minimizes workpiece slippage.

HEX



Item#	Size (Inch)
3900-1517*	1/8
3900-1518	3/16
3900-1520	1/4
3900-1522	5/16
3900-1524	3/8
3900-1526	7/16
3900-1528	1/2
3900-1530	9/16
3900-1532	5/8
3900-1534	11/16
3900-1536	3/4
3900-1538	13/16
3900-1540	7/8

* Limited Supply

5C PRECISION SQUARE COLLETS

- Precision square bore securely grips square stock for indexing, milling, grinding, and inspection operations.
- Hardened and precision-ground tool steel provides excellent durability and holding accuracy.
- Internal and external threading allows compatibility with standard 5C setups and fixtures.
- Accurate workholding improves repeatability and reduces movement during machining operations.

SQUARE

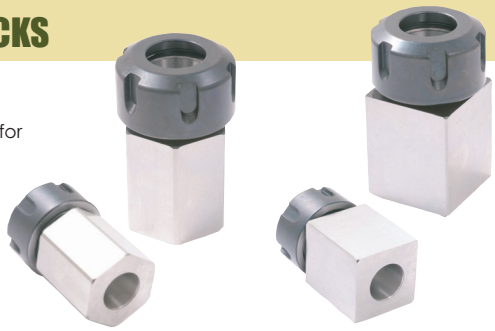


Item#	Size (Inch)
3900-1564	1/8
3900-1566	3/16
3900-1568	1/4
3900-1570	5/16
3900-1576	1/2
3900-1580	5/8
3900-1582*	11/16
3900-1584	3/4

* Limited Supply

HEX / SQUARE ER COLLET BLOCKS

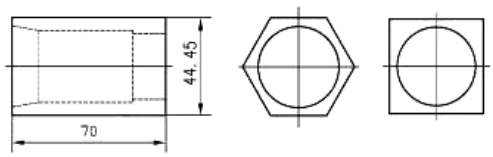
- Block Dimension: 1-3/4 x 1-3/4 x Height.
- For fast set-ups on CNC machines.
- For parallel, square or hex shapes as well as for cross hole drilling at 60°, 90° or 120°.
- Made of tool steel hardened and ground to .0005" flatness, squareness and parallelism.
- Through hole allows for long parts to be machined.
- May be used standing upright.
- Uses standard ER collets.
- ER nut included.



Item#	Shape	ER Collet	Block Height
3900-5123	Square	ER-25	2.7
3900-5124	Square	ER-32	2.8
3900-5125	Square	ER-40	3.2
3900-5127	Hex	ER-25	2.7
3900-5128	Hex	ER-32	2.8
3900-5129	Hex	ER-40	3.2

HEX & SQUARE COLLET BLOCK SET

- Capacity for standard 5C collets: 1/16" ~1-1/16".
- Overall Dimensions: 1-3/4" x 1-3/4" x 3-1/4".
- For fast set-ups on milling machines, lathes, surface grinders & drill presses.
- For parallel, square or hex shapes as well as for cross hole drilling at 60°, 90° or 120°.
- Made of tool steel hardened and ground to .0005" flatness, squareness and parallelism.





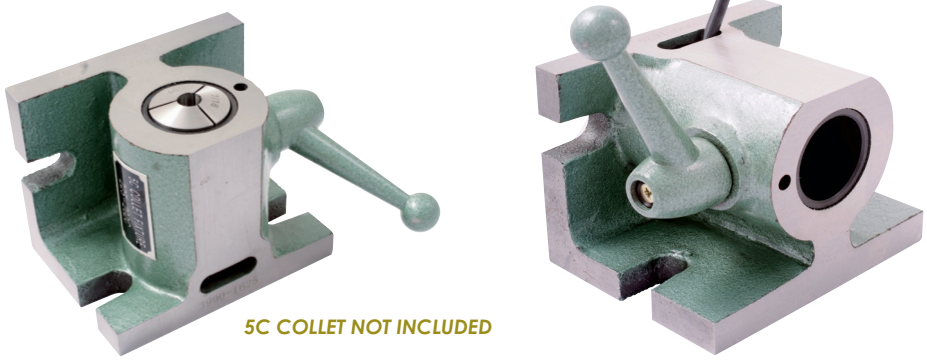
5 PC SET
3900–1620

5 PC INCLUDES:
Square, Hex, Quick Acting Rings & Lever collet closer cam operated.

5C H/V ANGLE COLLET FIXTURE

- For any standard 5C collet
- Horizontal or vertical position.
- Lever movement to open or close collet.
- Base Size (horizontal): 5 x 4"
- Base Size (vertical): 5 x 3-5/8"
- Height (H/V): 3-5/8" /4"

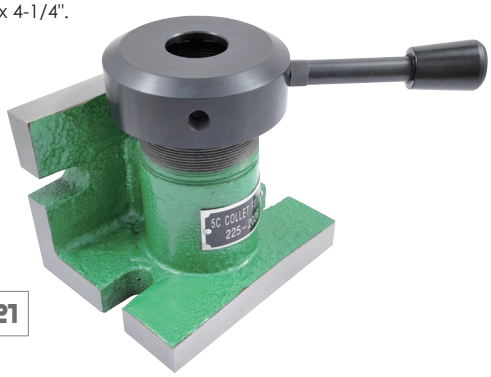
3900–1625



5C COLLET NOT INCLUDED

5C H/V COLLET FIXTURE

- For any standard 5C collet up to 1-1/8".
- Can be used in either horizontal or vertical position.
- Lever movement to open or close collet.
- Base Size: 4-1/4" x 4-1/4".
- Height: 4-1/4".
- Weight: 12 lbs



3900–1621

ANGLE END MILL GRINDING FIXTURE

- This fixture takes 5C round collets for grinding end mills 1/16" ~ 1-1/8" .
- Shell mills can easily be held with straight shank arbors.
- Solid negative ball stops with 15° spacing fast & easy set-ups.
- Can be used for grinding 2-3-4-6-8 and 12 flute end mills.
- Clearance & relief angels are built into the base.
- Solid 2-1/2" X 4-1/2" base bottom ground for sure contact.
- Black oxide finish.
- 5C collet not included.

5C COLLET NOT INCLUDED



3600–0056

ER-32 PRECISION INDEXING SPIN JIG

- **Indexing and Grinding Fixture.**
- Uses ER-32 collets (range 1/16~13/16") for better gripping and accuracy.
- Extends the capabilities of Drill Presses, Surface Grinders, Gear Cutters and Milling Machines.
- Spindle hardened and ground with .0005" (T.I.R.) run-out.
- 10 vernier holes for 1° indexing.
- 2" spindle travel for flute grinding.
- 5" diameter index plate has 36 hole circle and graduated by 0 to 35 for direct indexing in 10° steps and is marked in 5° increments.
- Spindle lock for tightening collet.
- Base Footprint: 4.5x4" ground parallel to spindle.
- Weight: 14 lbs.



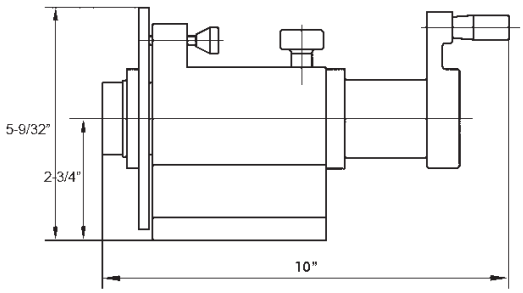
CENTER HEIGHT: 2.75"

NEW DESIGN
USES ER-32 COLLETS

3903–1600



WRENCH INCLUDED





CENTER HEIGHT: 2.75"

ER COLLET NOT INCLUDED

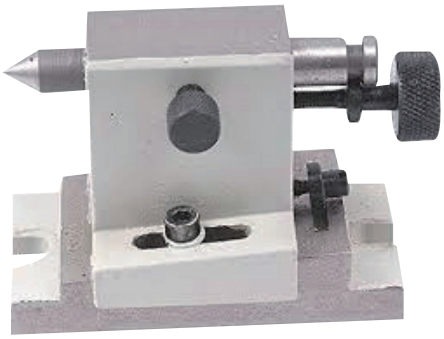


10 Vernier Holes for 1° Indexing

OPTIONAL TAILSTOCK

CENTER HEIGHT: 2.75"

3900–2406



See Page 278 for More Details.

OPTIONAL ER32 COLLET SETS

- Made of highgrade tool steel.
- Hardened and precision ground.

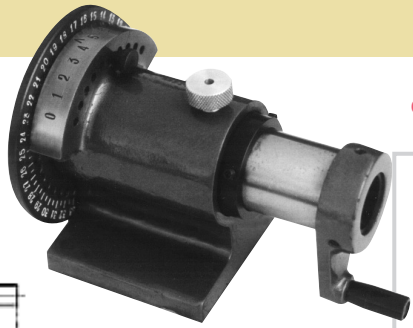
18 PC SET, INCH
3/32~3/4" BY 1/32
3900–5267



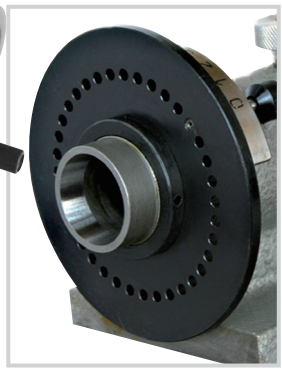
12 PC SET, METRIC
3,4,5,6,8,10,12,14,15,16,18&20mm
3903–5260

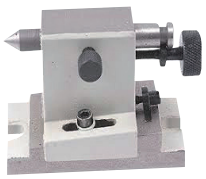
HIGH PRECISION 5C INDEXING SPIN JIG

- Uses 5C Collets, 1 1/8" max. capacity. Extends the capabilities of Drill Presses, Surface Grinders, and Milling Machines. Vernier reads to 10 minute accuracy, .0004" ground lapped; 2" travel for flute grinding. Simple 1° indexing. Hardened and ground spindle. Index plate has 36 hole circle. Spindle run out within .0005"(T.I.R). Spindle lock & hole for tightening collet. Plate graduated by 10 to 360.
- Index plate with 36 holes for direct indexing in 10° steps and is marked in 5° increments.
- Base size: 5x5"
- Weight: 20 lbs.

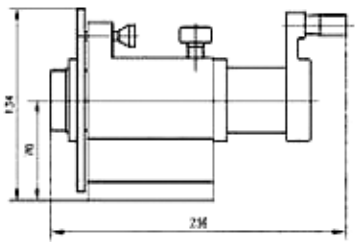


CENTER HEIGHT: 2.76"





Optional Tailstock: **3900-2406**

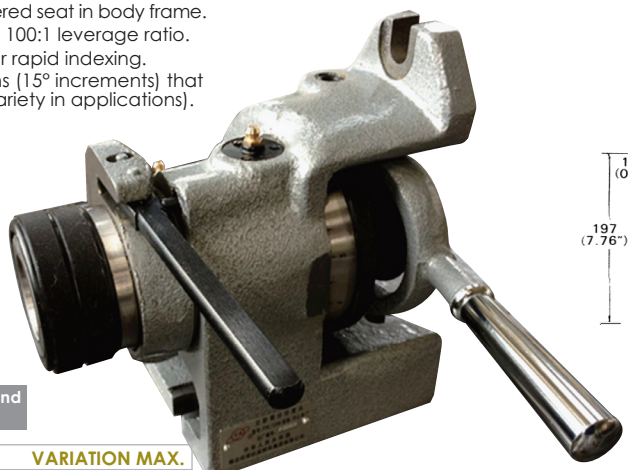


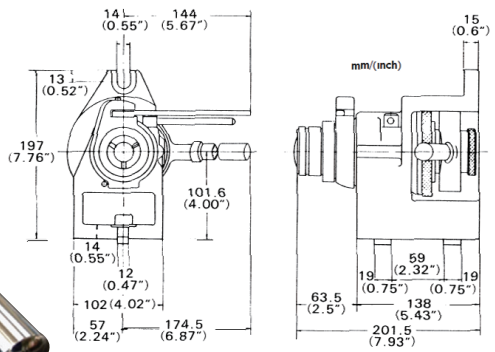
3900–1604
Weight: 14 Lbs.

Pro-Series HIGH PRECISION 5C COLLET INDEXER - Horizontal & Vertical

- Utilizes 5C collets.
- Spindle is manutactured with tapered seat in body frame.
- Lever operated collet closer with 100:1 leverage ratio.
- Front mounted ratchet control for rapid indexing.
- Index plate has 24 index locations (15° increments) that may be masked off for greater variety in applications).
- Single lever design.

DIVIDING SPINDLE CONCENTRICITY: MAX. VARIATION .0002"





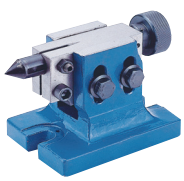
3903–1607
Weight: 28 Lbs.

Threaded spindle is hardened and ground (2-1/4"~8 TPI)

SPECIFICATIONS	VARIATION MAX.
Dividing spindle concentricity	0.0002"
Cylindrical center bore (per 1") concentricity	0.0008"
Spindle center line parallelism	0.0008"
Base to face squareness	0.0008"
Center slot to dividing spindle concentricity	0.0008"
Lateral offset of center slot to dividing spindle	0.0008"

PARTS ARE INTERCHANGEABLE WITH PHASE II

OPTIONAL TAILSTOCK (adjustable 4-6"): **3906-2406**



5C EXPANDING COLLETS & SET

- Size Range: 0.250"-1.937".
- Fits any standard 5-C spindle.
- Effective expansion up to 0.006".
- Collet easily machineable to fit your part.
- Concentricity within 0.0005".
- Shoulder widths within 0.001".
- Head: 1" length.

EASILY MACHINED

4 PC SET #1, 2, 3 & 4
3900–1606

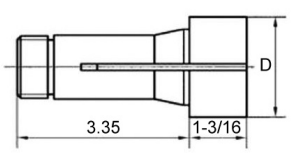


INDIVIDUALS

Item#	Size
3900-1627	.250~.468" (#1)
3900-1628	.437~.800" (#2)
3900-1629	.750~1.437" (#3)
3900-1630	.750~1.937" (#4)

5C CLUTCH COLLETS - STEP

- One-piece construction
- Spring-tempered to allow easy workpiece loading and removal
- Easily machined
- Fits all 5C closers and fixtures
- 1-3/16" head thickness





Item#	Size D
3900-1632	2"
3900-1633	3"
3900-1634	4"
3900-1635	5"

EXPANDING ARBORS & MANDRELS

EXPANDING ARBORS & SET

OPERATON:

- Chuck arbor in machine to be used.
- Tighten expanding screw so that arbor expands .005".
- Machine arbor to length and size required.
- Loosen expanding screw.
- Position part on arbor and tighten expanding screw.

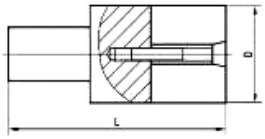
8 PC SET
3902–4006

SET INCLUDES:

- (8) Sizes 1/4 to 1-1/4" arbors with alloy wrenches in a handy wooden stand.

IMPROVED QUALITY





INDIVIDUAL ARBORS

Item#	Size, D	Length, L
3902-4016	1/4"	3"
3902-4018	3/8"	3"
3902-4020	1/2"	3"
3902-4022	5/8"	3"
3902-4024	3/4"	4"
3902-4026	7/8"	4"
3902-4028	1"	4"
3902-4030	1-1/4"	4"

8 PC EXPANDING ARBOR SETS - INCH/METRIC

- Chuck the shank of the expanding mandrel in a collet, jaw chuck, or fixture.
- With an Allen wrench tighten the hex draw bolt until it expands. Then machine the slotted part larger than bore of part.
- Loosen hex draw bolt, position part, tighten draw screw. The part is now chucked and ready for machinning.
- Can be used with standard collets, vises, jaw chucks and many other special fixtures.
- Multiple expanding mandrels are also used in other special fixtures for holding multiple work pieces "side by side".

SET INCLUDES:

Sizes shown, Allen wrench and wood block.



Item#	Sizes Included	No. of Pieces
3906-4006	1/4, 3/8, 1/2, 5/8, 3/4, 7/8, 1 & 1-1/4"	8
3906-4008	6, 10, 12, 16, 19, 22, 25 & 32mm	8

EXPANDING MANDRELS & SETS

- Made of high grade tool steel
- Precision ground and heat treated for maximum concentricity and holding power.
- Center holes are ground and lapped.
- The automatic expansion feature can be utilized on any bore (standard or no-standard) within the range of the mandrel.
- Sizes up t 1" capacity are furnished with 1 sleeve: larger sizes are furnished with 2 sleeves (1 large and 1 small).
- Arbors are tapered , sleeves are flexible and size is obtained by moving sleeve along arbor.
- A range from 1/2" thru 2" by 0.0001" can be covered by a total of 8 mandrels.



REPLACEMENT SLEEVES AVAILABLE !

EXPANDING MANDREL SETS

Item#	Size Range (D)	No. of Mandrels
3902-3070	1/2 ~ 1"	5
3902-3072	1 ~ 2"	3
3902-3074	1/2 ~ 2"	8
3902-3076	2~2-3/4"	3
3902-3078	2-3/4~3-3/4"	3

INDIVIDUAL EXPANDING MANDRELS

Item#	Size Range D	Length of Arbor (L)	Length of Sleeve (H)	Sleeves Furnished
3902-3050	1/2~9/16"	5"	2-1/2"	1
3902-3052	9/16~21/32"	6"	2-3/4"	1
3902-3054	21/32~3/4"	7"	2-3/4"	1
3902-3056	3/4~7/8"	7"	3-1/4"	1
3902-3058	7/8~1"	7"	3-1/4"	1
3902-3060	1~1-1/4"	9"	4"	2
3902-3062	1-1/4~1-1/2"	9"	4"	2
3902-3064	1-1/2~2"	11-1/2"	5"	2

HYDRAULIC CHUCK REDUCTION SLEEVES

- **High-Precision Hydraulic Reduction Sleeve** – Allows a single hydraulic chuck to accommodate multiple tool shank sizes, reducing toolholding costs.
- **Ultra-Low Runout Accuracy** – Precision manufactured with maximum T.I.R. ≤ 0.00012" (0.003 mm) for superior concentricity and cutting accuracy.
- **Premium Tool Steel Construction** – Made from high-quality tool steel for durability, stability, and long service life in demanding CNC environments.
- **Strong Clamping & Vibration Control** – Maximizes gripping force inside the hydraulic chuck, improving surface finish and extending tool life.
- **Through-Coolant Capable Design** – Sealed construction supports through-coolant applications, directing coolant efficiently to the cutting edge.

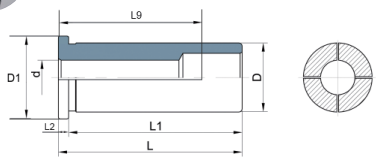


3901-3929 Shown



3901-3967 Shown



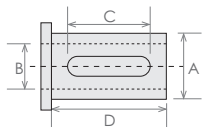


Max. T.I.R. ≤ .00012"/0.003mm

Item#	O.D. (D)	I.D. (d)	Bore Length (L9)	Sleeve Length (L1)	OAL (L)
3901-3923	3/4"	3/16	1.69"	1.99"	2.10"
3901-3925		1/4	1.60"		
3901-3927		5/16	1.60"		
3901-3929		3/8	1.60"		
3901-3933		1/2	1.60"		
3901-3937		5/8	1.60"		
3901-3955	1-1/4"	1/4	1.97"	2.40"	2.54"
3901-3957		5/16	1.97"		
3901-3959		3/8	1.97"		
3901-3963		1/2	2.14"		
3901-3967		5/8	2.14"		
3901-3971		3/4	2.14"		
3901-3975		1	2.14"		

TYPE C TOOL HOLDER BUSHINGS

- Made of high quality tool steel.
- Tool Holder Bushing for universal use on all CNC turning machines to adapt a wide variety of boring bars, drills, reamers and shank type tools.
- Hardened and precision ground to highest concentricity.



"C"



Item#	A O.D.	B I.D.	C Slot Length	D
3900-1911	3/4"	1/4	1-7/8"	2-1/4"
3900-1912		5/16		
3900-1913		3/8		
3900-1914		1/2		
3900-1915	1"	1/4	2-3/8"	2-3/4"
3900-1916		5/16		
3900-1917		3/8		
3900-1918		1/2		
3900-1919		5/8		
3900-2910		3/4		
3900-2911	1-1/4"	3/8	2-7/8"	3-1/4"
3900-2912		1/2		
3900-2913		5/8		
3900-2914		3/4		
3900-2916		1		
3900-2917	1-1/2"	3/8	3"	3-3/8"
3900-2918		1/2		
3900-2919		5/8		
3900-2920		3/4		
3900-2921*		7/8		
3900-2922		1		
3900-2923		1-1/4		
3900-2924*	1-3/4"	1/2	3-1/8"	3-1/2"
3900-2925*		5/8		
3900-2926*		3/4		
3900-2927*		7/8		
3900-2928*		1		
3900-2929*		1-1/4		
3900-2931	2"	1/2	3-5/8"	4"
3900-2932		5/8		
3900-2933		3/4		
3900-2938*		7/8		
3900-2934		1		
3900-2935		1-1/4		
3900-2936		1-1/2		
3900-2937		1-3/4		

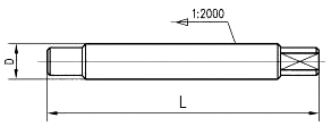
* Limited Supply

LATHE AND OD GRINDER MANDRELS

Designed For Setting-Up Accurately Bored Or Reamed Blanks And Castings

- Standard taper: .0005" per 1".
- Sizes under 1" are .0005" undersize on smaller end.
- Sizes 1-1/16" to 3" are .001" undersized on smaller end.
- Made of tool steel hardened and ground.





Unit: Inch

Dia. D	OAL L	Item#	Dia. D	OAL L	Item#	Dia. D	OAL L	Item#	Dia. D	OAL L	Item#
1/8	2-1/2	3902-2008	5/8	5-1/2	3902-2040	1-1/8	7-1/2	3902-2108	1-3/4	10	3902-2148
3/16	3	3902-2012	21/32	5-3/4	3902-2042	1-5/32	7-3/4	3902-2110*	1-13/16	10-1/4	3902-2152*
7/32	3-3/4	3902-2014*	11/16	5-3/4	3902-2044	1-3/16	7-3/4	3902-2112	1-7/8	10-1/2	3902-2156*
1/4	3-3/4	3902-2016	23/32	6	3902-2046*	1-5/16	8-1/4	3902-2120*	1-15/16	10-3/4	3902-2160*
5/16	4	3902-2020	3/4	6	3902-2048	1-11/32	8-3/4	3902-2122*	2	11	3902-2200
3/8	4-1/4	3902-2024	13/16	6-1/4	3902-2052	1-7/16	8-3/4	3902-2128*	2-1/4	12	3902-2216
13/32	4-1/4	3902-2026*	7/8	6-1/2	3902-2056	1-15/32	9	3902-2130*	2-3/8	12	3902-2224
7/16	4-1/4	3902-2028	15/16	6-3/4	3902-2060	1-1/2	9	3902-2132	2-1/2	12-1/2	3902-2232
15/32	5	3902-2030*	1	7	3902-2100	1-9/16	9-1/4	3902-2136*	2-3/4	13	3902-2248
1/2	5	3902-2032	1-1/32	7-1/4	3902-2102*	1-5/8	9-1/2	3902-2140*	2-7/8	13	3902-2256
9/16	5-1/4	3902-2036	1-3/32	7-1/2	3902-2106*	1-11/16	9-3/4	3902-2144*	3	13	3902-2300

* Limited Supply

SPECIFICATIONS & LATHE CHUCK MOUNTING DIMENSIONS

LATHE CHUCK MOUNTING TYPES

American Standard "A" Series Spindle

- X Dimension refers to outside diameter of spindle nose.

Spindle	**A5**	**A6**	**A7**
X=	3-1/4	4-3/16	5-1/2
Spindle	**A11**	**A15**	**A20**
X=	7-3/4	11-1/4	16-1/4

Camlock "D"Series Spindle

- X Dimension refers to outside diameter of spindle nose.

Spindle	**D1-3**	**D1-4**	**D1-5**
X=	3-5/8	4-5/8	5-3/4
Spindle	**D1-6**	**D1-8**	**D1-11**
X=	7-1/8	8-7/8	11-3/4

Long Taper Key Drive "L" Series Spindle

- X Dimension refers to largest portion of taper.

Spindle	**L00**	**L0**	**L1**
X=	2-3/4	3-1/4	4-1/8
Spindle	**L2**	**L3**	
X=	5-1/4	6-1/2	

Threaded Series Spindle

- X Dimension refers to major diameter of thread.

X= **Dia.(inch) - Pitch**		
3/4~16	1~10	2-1/4~8
1/2~24	1-1/2~8	2-3/8~6
1/2~20	1-3/4~8	2-3/4~8
1~8		

BACK PLATE MOUNTING INSTRUCTIONS

Chuck Mounting Information: Using Semi-Finished Plates - For Standard Flat Back Lathe Chucks:

NOT for "Adjustable Run-Out" models (see separate instructions). When using a Chuck Adapter Plate to mount a flat back lathe chuck:

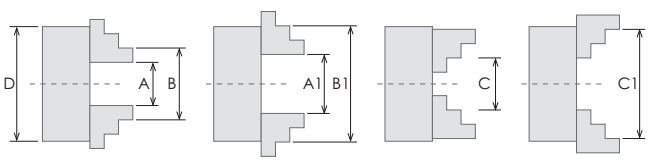
1. The lathe must be levelled with a precision level, this assures machining accuracy.
2. Adapter plate or chuck plate is to be mounted on lathe spindle.
3. A skim facing cut across the full face of the adaptor must be made. This assures that the face is at 90*to the centerline of the lathe spindle.
4. The chuck plate has a boss onto which the recess in back of the chuck must mount. Turn the boss to fit tightly into the chuck body. The accuracy of this operation is directly relative to best results.
5. Turn the O.D. of chuck plate to match the chuck - not always the same size of the chuck body, especially with 4 jaw independent chucks.
6. In most cases the chuck has threaded holes in the chuck body, to accept mounting bolts, or the chuck plate has threaded holes, for chucks having through holes in the body for front insertion. In some instances it may be necessary to transfer hole locations and drill clearance holes.
7. "A" type adaptors come in two versions: A-1 has two bolt circles(inner & outer), A-2 has a single outer bolt circle of tapped holes. The chuck adaptor is fastened to spindle separately, then the chuck is fastened to the plate.
8. Lathes having threaded spindle noses follow similar procedures 1 thru 6.

Chuck Mounting Information: Using Zero-Set Mounting Plates:

This type of chuck is designed so that the chuck body can be moved by utilizing adjusting screws. A ground pin is held firmly in the chuck mounted on the lathe. The pin is trammed with a test indicator and the adjusting screws used to correct the run-out. The design of the chuck adaptor permits the chuck adjusting screws to contact an extended boss on the plate, facilitating adjustment. These adaptors are to be "zeroed in" prior to actually mounting the chuck by taking a skim facing cut across the flange. All other dimensions should be compared to the back of the specific chuck and machined accordingly, if necessary. Once the mounted chuck has been "zeroed-in" in all respects, the chuck must be "locked" into the adjusted position. Double check with ground pin and test indicator.

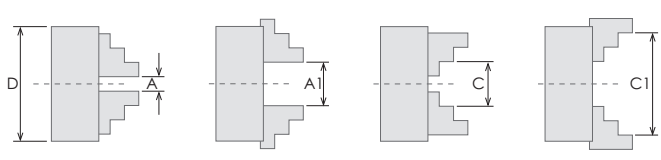
LATHE CHUCK CLAMPING RANGE

Self-Centering Chucks



Chuck Size Inch/MM	Internal Jaw Clamping Range A-A1 (MM)	Internal Jaw Jamming Range B-B1 (MM)	External Jaw Clamping Range C-C1 (MM)
3/80	2-22	25-70	22-63
4/100	2-30	30-90	30-80
5/125	2.5-40	38-125	38-110
6/160	3-55	50-160	55-145
8/200	4-85	65-200	65-200
10/250	6-110	80-250	90-250
12/315	10-140	95-315	100-315
15/400	15-210	120-400	120-400
20/500	25-280	150-500	150-500

Independent Chucks



Chuck Size Inch/MM	Internal Jaw Clamping Range A-A1 (MM)	External Jaw Clamping Range C-C1 (MM)
3/80	5-35	35-80
4/100	6-45	40-100
5/125	7-57	48-125
6/160	8-80	50-160
8/200	10-100	63-200
10/250	15-130	80-250
12/315	20-170	100-315
15/400	25-250	118-400
20/500	35-300	120-500

HARLINGEN® PREMIUM LATHE CHUCKS - ADVANTAGES

Radial Runout
≤ 0.002 inches





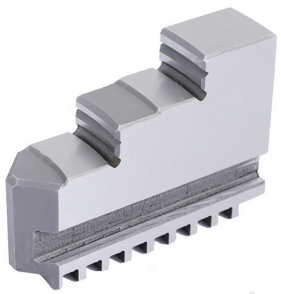
• CHUCK BODY

Body is entirely made of wear-resisting semi-steel No.40/No.45 (ASTM) providing a higher hardness at HB190-220 compared to other brands using HT250 cast iron with hardness of HB180-220.

• COVER PLATE

High quality No.35 (ASTM) is used to achieve a higher accuracy, strength and extended tool life. Competitors use HT150 cast iron or engineering plastics as a substitute.





• SOLID JAWS

Jaws are made of carbon 1045 (ASTM) steel and hardened. Pressed individually to ensure precise fit, powerful clamping performance and each jaw is interchangeable while maintaining accuracy.

• H-GROOVE

Specific machine and fixtures have been adopted to process H-Groove simultaneously so the clamping accuracy is guaranteed.





• PINIONS

Made of 20CrMnTi, quenching procedure to enhance wear-resistance and strength.



• SCROLL PLATE

Made of 5140 (ASTM) to enhance wear resistance and strength. Hardened and precision machined. Scroll face threads are processed with high accuracy CNC machining which improves self-centering performance.

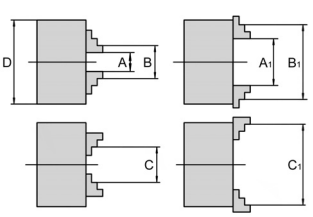


• INSPECTION REPORT

Each chuck body has its own ID and 100% inspected with trackable data.

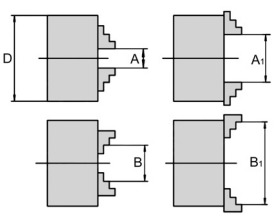
Clamping Range For Self-Centering Chucks

Size	Internal Jaws		External Jaws
	Clamping Range A-A1	Jamming Range B-B1	Clamping Range C-C1
3"	0.08"-0.87"	0.98"-2.76"	0.87"-2.48"
4"	0.08"-1.18"	1.18"-3.54"	1.18"-3.15"
5"	0.1"-1.57"	1.5"-4.92"	1.5"-4.33"
6"	0.12"-2.17"	1.97"-6.3"	2.17"-5.71"
8"	0.16"-3.35"	2.56"-7.87"	2.56"-7.87"



Clamping Range For Independent Chucks

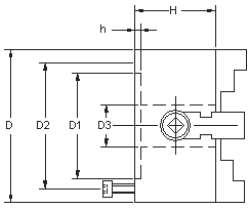
Size	Internal Jaws	External Jaws
	Clamping Range A-A1	Clamping Range B-B1
3"	0.2"-1.38"	1.38"-3.15"
4"	0.24"-1.77"	1.57"-3.94"
5"	0.28"-2.24"	1.89"-4.92"
6"	0.31"-3.15"	1.97"-6.3"
8"	0.39"-3.94"	2.48"-7.87"

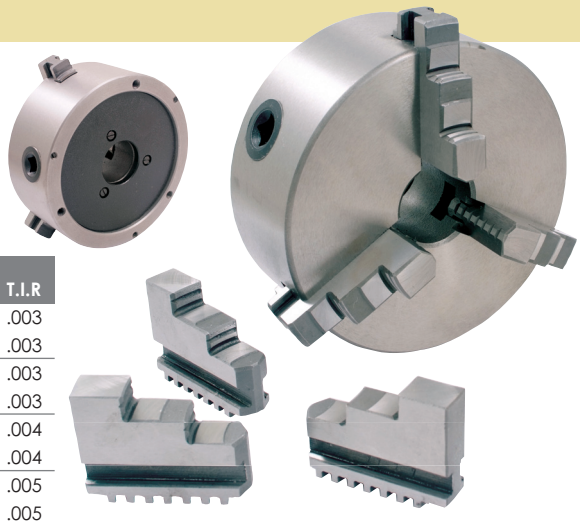


3-JAW SELF-CENTERING LATHE CHUCKS - PLAIN BACK

- Self-centering design for fast, accurate workholding.
- Hardened and ground steel body for long service life.
- Plain back design fits custom back plates and fixtures.
- Includes two sets of hard jaws for internal and external gripping, mounting screws and lathe chuck wrench.

PLAIN BACK





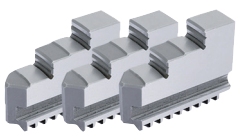
Item#	Size D	(Inch) D1	(Inch) D2	h	H	Z-d	Center Hole	Max. RPM	T.I.R
3900-0031	3"	2.17	2.6	0.14	1.97	3-M6	0.630	4000	.003
3900-0032	4"	2.83	3.3	0.14	2.36	3-M8	0.866	3500	.003
3900-0033	5"	3.94	4.53	0.14	2.36	3-M8	1.181	3000	.003
3900-0035	6"	5.15	5.6	0.20	2.56	3-M8	1.771	2500	.003
3900-0037	8"	6.50	7.1	0.20	2.95	3-M10	2.559	2000	.004
3900-0038	10"	8.11	8.9	0.20	3.15	3-M12	3.149	1600	.004
3900-0040	12"	10.71	11.65	0.48	3.54	3-M16	3.937	1200	.005
3900-0039	15"	12.80	13.75	0.24	6.13	3-M16	5.709	1200	.005

HARLINGEN® 3-JAW SELF-CENTERING LATHE CHUCKS - PLAIN BACK

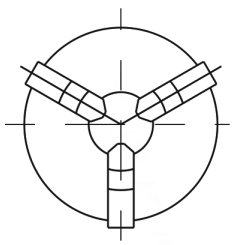


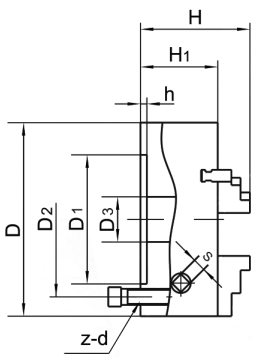
- Precision self-centering for quick setup and repeatability.
- High gripping force for secure, reliable holding.
- Includes internal and external jaws, chuck wrench and mounting screws for easy installation.

See page 316 for Advantages!





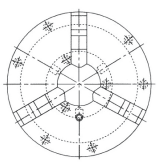


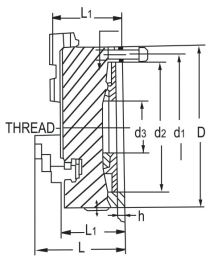


Item#	D	D1	D2	D3	H	H1	h	Wrench S	Screw	Max. Input Torque Nm	Max. Speed r/min	Weight (Lbs.)
9712-1105	3"	2.17"	2.6"	0.63"	2.6"	1.97"	0.14"	0.31"	3-M6	40	4000	4.2
9712-1106	4"	2.83"	3.3"	0.87"	2.93"	2.17"	0.14"	0.31"	3-M8	60	3500	7.1
9712-1107	5"	3.74"	4.25"	1.18"	3.3"	2.28"	0.16"	0.39"	3-M8	100	3000	11
9712-1108	6"	5.12"	5.6"	1.57"	3.74"	2.6"	0.2"	0.39"	3-M8	160	2500	19.4
9712-1109	8"	6.5"	7.09"	2.56"	4.29"	2.95	0.2"	0.47"	3-M10	160	2000	34.2

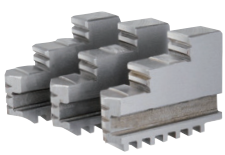
VERITEX® 3-JAW FRONT-MOUNT SELF-CENTER CHUCKS - PLAIN BACK

- Front-mount design ideal for rotary tables, dividing heads, and indexers.
- Made in Taiwan for proven quality and durability.
- Self-centering jaws provide fast, accurate workholding.
- Includes internal and external jaws plus chuck wrench for added convenience.





MADE IN TAIWAN





Item#	Chuck Size D (Inch/mm)	For Rotary Table	d1	(Inch) d2	Center Hole d3	L	L1	h	Thread Z-d	Gripping Range O.D. (mm)	Gripping Range I.D.(mm)
3800-5819	3/80	6"	2.60	2.17	0.63	2.6	2.0	0.138	3-M6	2~70	24~64
3800-5820	4/100	6"	3.31	2.83	0.87	2.9	2.2	0.138	3-M8	3~90	32~84
3800-5821	5/130	8"	4.53	3.94	1.18	3.1	2.2	0.138	3-M8	3~110	35~100
3800-5822	6/160	8"	5.59	5.12	1.77	3.7	2.6	0.197	3-M10	3~160	48~150
3800-5823	8/200	10-12"	7.09	6.50	2.75	4.3	3.0	0.197	3-M12	4~180	56~170
3800-5824	10/250	12"	8.86	8.11	3.15	4.7	3.2	0.197	3-M12	6~220	70~250

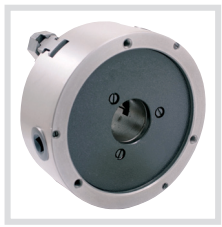
3-JAW (TOP REVERSIBLE JAWS) SELF-CENTERING CHUCKS - PLAIN BACK

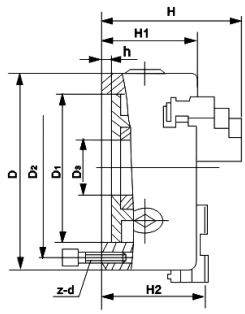


See page 321 for back plates.

- Reversible top jaws handle a wide range of workpiece sizes.
- Self-centering design provides fast, accurate setup.
- Hardened and ground for long-lasting precision.
- Plain back allows custom back plate mounting.
- Includes chuck wrench for immediate use.

TOP JAWS REVERSIBLE





Item#	Size D	D1	D2	(Inch) h	A	Z-d	Center Hole	Max. RPM	T.I.R.
3900-3401	6"	5.12	5.60	0.20	2.5	3-M8	1.575	2500	.003
3900-3402	8"	6.50	7.09	0.20	3.0	3-M10	2.559	2000	.004
3900-3403	10"	8.10	8.90	0.20	3.3	3-M12	3.150	1600	.004
3900-3412	12"	10.70	11.66	0.24	4.2	3-M16	3.937	1200	.005
3900-3415	15"	12.80	13.78	0.24	4.3	3-M16	5.320	1000	.005
3900-3420	20"	17.32	18.31	0.24	5.0	6-M16	8.268	800	.006

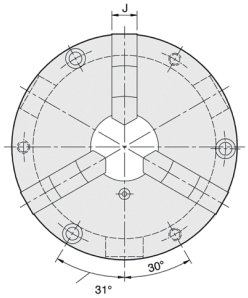
3-JAW FRONT-MOUNT (TOP REVERSABLE JAWS) SELF-CENTERING CHUCKS - PLAIN BACK

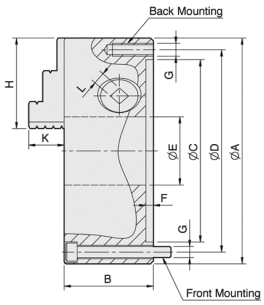
TOP JAWS REVERSIBLE



- Front-mount design fits rotary tables, indexers, and fixtures.
- Reversible top jaws increase clamping versatility.
- Self-centering action ensures repeatable accuracy.
- Hardened and ground for durability and long life.
- Includes chuck wrench for added convenience



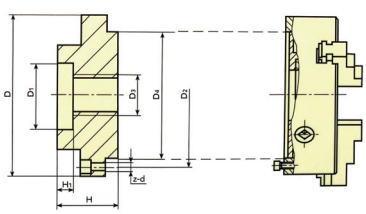




Item#	Chuck Size A	D	(Inch) C	B	Center Hole,E	G	Max. RPM	T.I.R.
3900-3430	6"	5.51	5.12	2.60	1.575	3-M8	2500	.003
3900-3432	8"	6.93	6.30	3.00	2.559	3-M10	2000	.004
3900-3434	10"	8.82	7.87	3.42	3.150	3-M12	1600	.004
3900-3436	12"	11.26	10.24	3.86	3.937	3-M16	1200	.005

6" 3-JAW SELF-CENTERING LATHE CHUCKS - THREADED DIRECT MOUNT

- Direct-thread mount provides quick, secure installation.
- Self-centering jaws deliver fast, accurate workholding.
- Hardened and precision ground for dependable performance.
- Includes two sets of hard jaws for internal and external gripping, mounting screws and chuck wrench.





Item#	Size D	Back Plate Thread D3	(Inch) D1	D2	D4	H	H1	z-d	Chuck Center Hole	Max. RPM	T.I.R
3900-4722	6"	1-1/2"-8	1.55	5.6	130	40	13	3x9mm(Dia.)	1.575	2500	.003
3900-4724	6"	2-1/4"-8	2.34	5.6	130	40	17.5	3x9mm(Dia.)	1.575	2500	.003

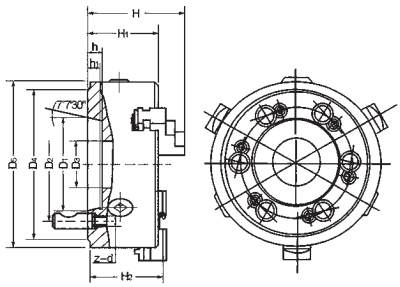
3-JAW SELF-CENTERING LATHE CHUCKS

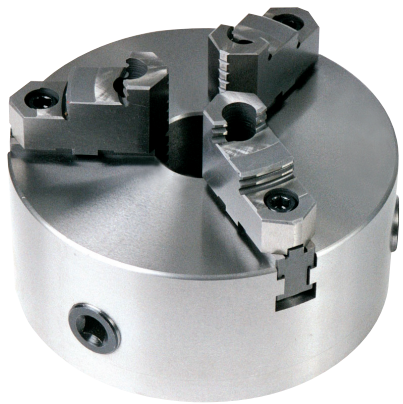
3-JAW D1 SELF-CENTERING SCROLL CHUCKS - DIRECT MOUNT

- Direct Mounting chuck with Camlock Nose.
- Body made of high grade semi-steel.
- Top jaws are reversible.
- Self centering jaws, hardened and precision ground.
- Lathe chuck wrench supplied.

D-MOUNT







2PC TOP REVERSIBLE HARD JAWS

SPINDLE NOSE DIMENSIONS

Spindle Nose	D-3	D-4	D-6	D-8	D-11
Dia.	2.13"	2.50"	4.19"	5.50"	7.75"

Item#	Chuck Dia. D5	To Fit Spindle	Max. RPM	T.I.R.	Studs B.C. D2	Studs Included	Dia. of Stud	Center Hole D3	D1	H	H1	h	Z-d	Weight (Lbs)
3900-4605	6"	D1-3	2500	.003	2.780	3	9/16	1.575	2.130	4.5	3.0	0.512	M10x1	23
3900-4606	6"	D1-4	2500	.003	3.252	3	5/8	1.575	2.130	4.5	3.0	0.512	M10x1	23
3900-4607	8"	D1-4	2000	.004	3.252	3	5/8	2.362	2.500	5.3	3.4	0.630	M10x1	45
3900-4609	8"	D1-5	2000	.004	4.126	6	3/4	2.560	2.500	5.3	3.4	0.630	M10x1	45
3900-4608	8"	D1-6	2000	.004	5.252	6	7/8	2.362	4.188	5.3	3.4	0.630	M16x1.5	45
3900-4630	10"	D1-5	1600	.004	4.126	6	3/4	3.145	4.188	6.0	3.9	0.709	M10x1	75
3900-4631	10"	D1-6	1600	.004	5.252	6	7/8	3.145	4.188	6.0	3.9	0.709	M20x1.5	75
3900-4610	10"	D1-8	1600	.004	6.748	6	1	2.750	5.500	6.0	3.9	0.709	M20x1.5	75
3900-4615	12"	D1-6	1200	.005	5.252	6	7/8	3.937	4.188	6.7	4.2	0.709	M20x1.5	130
3900-4612	12"	D1-8	1200	.005	6.748	6	1	3.937	5.500	6.7	4.2	0.709	M20x1.5	130
3900-4616	15"	D1-11	1100	.005	9.252	6	1-3/16	5.315	5.500	6.7	4.6	0.709	M22x1.5	225

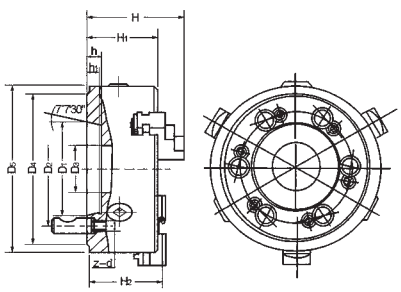
Larger sizes available

Pro-Series 3-JAW D1 SELF-CENTERING SCROLL CHUCKS - DIRECT MOUNT

- Semi-steel body.
- Direct mount self-centering scroll chucks.
- American standard two piece top reversible tongue & groove Jaws.
- All guide ways & bearing surfaces are precisely ground.
- Pinions are hardened & ground
- Scroll plate is dropped forged of fine alloy steel and case fully hardened. Thread flanks are ground on both sides for smooth operation.



2PC TOP REVERSIBLE HARD JAWS



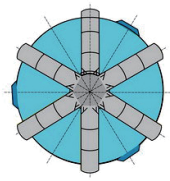
AMERICAN STANDARD

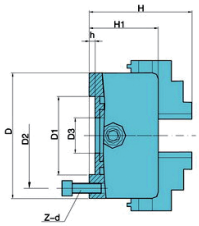


Item#	Chuck Dia. D5	To Fit Spindle	Max. RPM	T.I.R.	Studs B.C. D2	Studs Included	(Inch) Dia. of Stud	Center Hole D3	D1	H	H1	h	Z-d	Weight (Lbs)
3900-8005	5"	D1-4	3200	.003	3.252	3	5/8	1.260	2.501	4.33	2.76	0.512	M10x1	11
3900-8008	6"	D1-3	3000	.003	2.780	3	9/16	1.654	2.125	4.90	3.21	0.512	M10x1	20
3900-8009	6"	D1-4	3000	.003	3.252	3	5/8	1.654	2.501	4.90	3.21	0.512	M10x1	20
3900-8013	8"	D1-3	2500	.003	2.780	3	9/16	2.028	2.125	5.35	3.58	0.512	M10x1	42
3900-8014	8"	D1-4	2500	.003	3.252	3	5/8	2.165	2.501	5.35	3.58	0.512	M10x1	42
3900-8015	8"	D1-5	2500	.003	4.126	6	3/4	2.165	3.251	5.35	3.58	0.563	M12x1	42
3900-8016	8"	D1-6	2500	.003	5.252	6	7/8	2.165	4.188	5.35	3.58	0.563	M16x1.5	42
3900-8020	10"	D1-5	2000	.003	4.126	6	3/4	2.992	3.251	6.16	4.08	0.563	M12x1	71
3900-8021	10"	D1-6	2000	.003	5.252	6	7/8	2.992	4.188	6.16	4.08	0.630	M16x1.5	71
3900-8022	10"	D1-8	2000	.003	6.748	6	1	2.992	5.501	6.16	4.08	0.709	M20x1.5	71
3900-8024	12"	D1-6	1500	.0035	5.252	6	7/8	4.055	4.188	6.88	4.64	0.630	M16x1.5	112
3900-8025	12"	D1-8	1500	.0035	6.748	6	1	5.354	5.501	6.88	4.64	0.709	M20x1.5	112
3900-8028	15"	D1-8	1000	.004	6.748	6	1	5.354	5.501	7.70	5.06	0.709	M20x1.5	223
3900-8030	15"	D1-11	1000	.004	9.252	6	1-3/16	5.906	7.751	7.70	5.06	0.787	M22x1.5	223

6-JAW SELF-CENTERING LATHE CHUCKS - PLAIN BACK

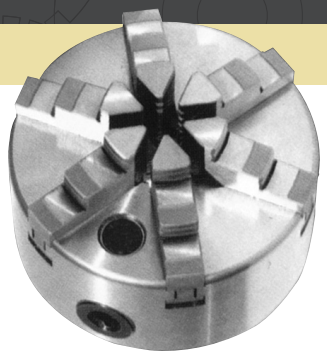
- Excellent for holding and machining thin walled workpieces.
- Made of high grade semi-steel.
- Self centering jaws, hardened and precision ground.
- 1 set of mounting screws included.
- Adjusting wrench supplied.
- .003" T.I.R
- One set of internal solid jaws.





PLAIN BACK

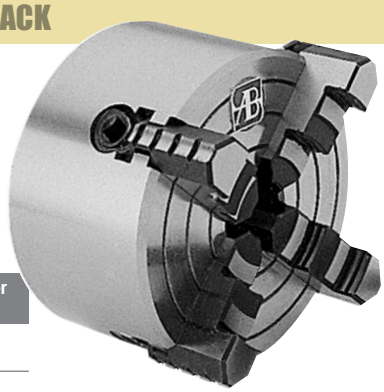




Item#	Chuck Size	(INCH) D	D1	D2	h	H1	H	Z-d	Center Hole D3	Max. RPM	CLAMPING RANGE Internal Jaws	External Jaws
3900-4558	8	7.9	6.50	7.09	0.20	3.00	4.3	3-M10	2.56	2000	6-85mm	65-200mm
3900-4559	10	9.8	8.11	8.96	0.20	3.00	4.7	3-M12	3.15	1600	7.5-110mm	80-250mm

4-JAW INDEPENDENT LATHE CHUCKS - PLAIN BACK

- Body made of high quality semi-steel.
- Hardened and ground.
- 1 set of mounting screws included.
- Reversible individual adjusting jaws.
- Adjusting wrench supplied.

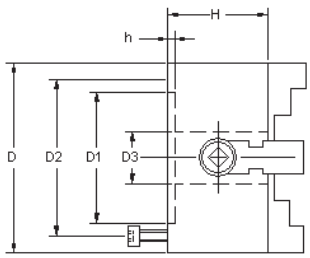


PLAIN BACK



Item#	Size D	D1	D2	(Inch) h	H	Z-d	Center Hole
3900-0413	3"	2.17	2.60	0.12	1.65	3-M6	0.630
3900-0414	4"	2.83	3.30	0.14	2.13	4-M8	0.866
3900-0415	5"	3.74	4.25	0.18	2.21	4-M8	1.180
3900-0041	6"	2.56	3.74	0.20	2.56	4-M10	1.772
3900-0042	8"	3.15	4.41	0.24	2.95	4-M10	2.205
3900-0043	10"	4.33	5.12	0.24	3.15	4-M12	3.150
3900-0046	12"	5.51	6.50	0.24	3.54	4-M16	3.543
3900-0048	16"	7.87	8.94	0.39	4.13	4-M16	3.937

Designed to grip round or odd shaped work.



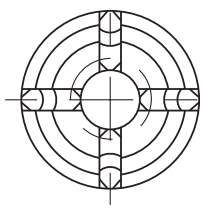
HARLINGEN® 4-JAW INDEPENDENT LATHE CHUCKS - PLAIN BACK



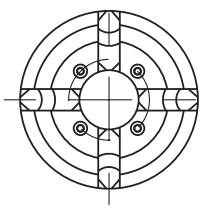
6 & 8" Shown



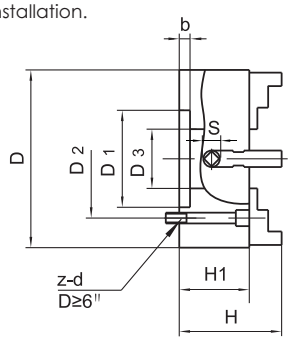
- Four independent jaws for precise centering of round, square, and irregular workpieces.
- Reversible jaws provide greater clamping versatility.
- Plain back design allows custom back plate mounting.
- High-quality steel construction for strength and durability.
- 6 & 8" chucks are provided with a thru-hole for easy mounting on table, dividing head, fixture or indexer.
- Includes chuck wrench and mounting screws for quick installation.



D=3,4&5"



D=6&8"



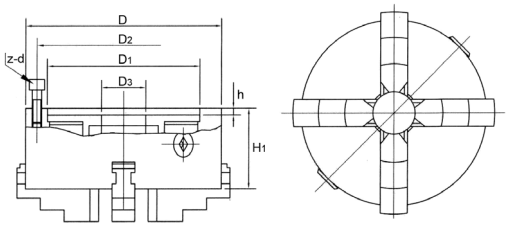
See page 316 for Advantages!

Item#	D	D1	D2	D3	H	H1	h	Wrench S	Screw	Max. Input Torque Nm	Max. Speed r/min	Weight (Lbs.)
9713-1101	3"	2.17"	2.6"	0.87"	2.2"	1.65"	0.14"	0.31"	4-M6	25	4000	5.5
9713-1102	4"	2.83"	3.30"	0.98"	2.13"	2.91"	0.14"	0.31"	4-M8	30	3500	6.6
9713-1103	5"	3.74"	4.25"	1.18"	3.07"	2.2"	0.18"	0.39"	4-M8	50	3000	11
9713-1104	6"	2.56"	3.74"	1.77"	3.66"	2.56"	0.2"	0.39"	4-M10	70	2500	19.8
9713-1105	8"	3.15"	4.41"	2.2"	4.21"	2.95"	0.24"	0.47"	4-M10	100	2000	33

4-JAW LATHE CHUCKS

4-JAW SELF-CENTERING SCROLL CHUCKS - PLAIN BACK

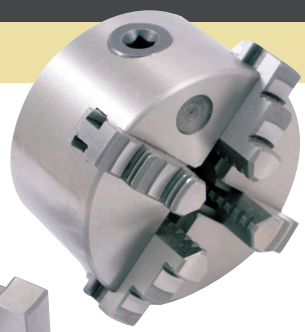
- Self-centering scroll design provides fast, accurate setup.
- Four jaws deliver secure, even clamping force.
- Plain back design allows custom back plate mounting.
- Includes two jaw sets for internal and external gripping and chuck wrench.



PLAIN BACK





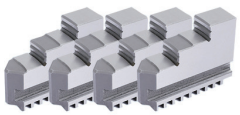


Item#	Chuck Size D	D1	D2	(Inch) h	H1	H	Z-d	Center Hole D3	Max. RPM	T.I.R.
3900-0423	3	2.165	2.598	.14	1.97	2.6	3-M6	0.630	4000	.003
3900-0424	4	2.835	3.307	.14	2.17	3.0	3-M8	0.866	3500	.003
3900-0425	5	3.740	4.252	.16	2.28	3.3	3-M8	1.181	3000	.003
3900-0426	6	5.118	5.591	.20	2.56	3.8	3-M8	1.772	3000	.003
3900-0428	8	6.495	7.087	.20	2.95	4.5	3-M10	2.559	2000	.004
3900-0430	10	8.110	8.898	.20	3.54	4.9	3-M12	3.150	1600	.005
3900-0432	12	10.236	11.220	.24	3.74	5.6	3-M16	3.937	1200	.005

HARLINGEN® 4-JAW SELF-CENTERING LATHE CHUCKS - PLAIN BACK

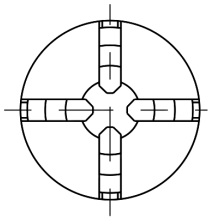


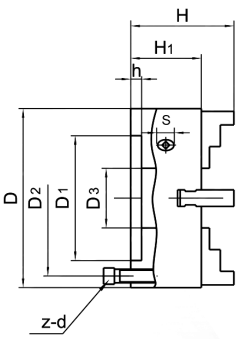
- Self-centering action ensures quick, repeatable workholding.
- Hardened steel construction for long service life.
- Includes two jaw sets for ID and OD clamping, chuck wrench and mounting screws for easy installation.





See page 316 for Advantages!





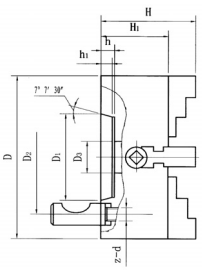
Item#	D	D1	D2	D3	H	H1	h	Wrench S	Screw	Weight (Lbs.)
9713-2110	3"	2.17"	2.6"	0.63"	2.6"	1.97"	0.14"	0.31"	3-M6	4.4
9713-2101	4"	2.83"	3.31"	0.87"	2.87"	2.11"	0.14"	0.31"	3-M8	6.6
9713-2102	5"	3.74"	4.25"	1.18"	3.31"	2.28"	0.16"	0.39"	3-M8	11
9713-2103	6"	5.12"	5.59"	1.57"	3.74"	2.56"	0.20"	0.39"	3-M8	19.4

4 - JAW CAMLOCK SPINDLES "D-1" LATHE CHUCKS - Direct Mount

- Direct Mounting chuck with Camlock Nose.
- Body made of high grade semi-steel.
- Jaws are individually adjustable, allowing firm gripping of odd shaped work.
- Hardened and precision ground reversible jaws.
- T-wrench included.

SPINDLE NOSE DIMENSIONS

Spindle Nose	D-3	D-4	D-6	D-8
Dia.	2.13"	2.50"	4.19"	5.50"



D-MOUNT

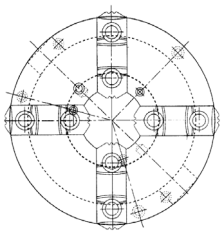


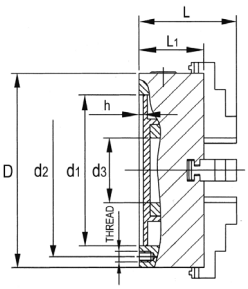


Item#	Chuck Dia. D	To Fit Spindle	Studs B.C. D2	Studs Included	Dia. of Stud	(Inch) Center Hole D3	D1	H	H1	h	Z-d	Weight (Lbs)
3900-4808	8"	D1-4	3.346	3	5/8	2.165	2.500	4.2	3.0	0.518	M10x1	37
3900-4810	10"	D1-6	5.252	6	7/8	2.953	4.190	4.7	3.2	0.630	M16x1.5	52
3900-4809	12"	D1-6	5.252	6	7/8	3.740	4.188	5.3	3.6	0.630	M16x1.5	100
3900-4878	16"	D1-8	6.748	6	1	4.921	5.500	5.6	3.7	0.709	M20x1.5	140

VERTEX® 4-JAW SELF-CENTERING PLAIN BACK CHUCKS – REVERSIBLE TOP JAWS

- **Made in Taiwan** – High Quality & Exceptional Value: Precision manufacturing delivers consistent accuracy and durability comparable to premium brands at a more competitive price point.
- **Self-Centering 4-Jaw Design** – Automatically centers square, round, and irregular workpieces for faster setup and improved accuracy versus independent chucks.
- **Reversible Top Jaws** – Quickly switch between internal and external gripping, expanding clamping range and application flexibility.
- **360° Clamping Capability** – Even jaw movement ensures balanced gripping force for secure, distortion-free holding.
- **Hardened & Precision Ground Components** – Provides long service life, wear resistance, and consistent accuracy in demanding shop environments.
- **High Gripping Force with Stability** – Designed for heavy-duty machining with reduced vibration and improved surface finish.
- **Direct Mount / Back Plate Compatibility** – Easy installation on lathes, rotary tables, and dividing heads for versatile shop use.
- **Durable Construction** – Built for reliability in production, toolroom, and maintenance applications.
- **Includes**: chuck, key and set of six mounting screws.









MADE IN TAIWAN

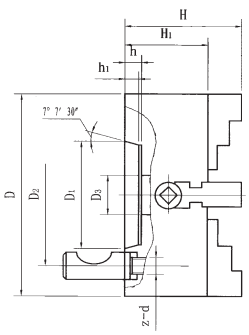
UNIT: Inch/mm

Item#	Chuck Size	D	d1	d2	d3	L	L1	h	Gripping Range O.D.	Gripping Range I.D.	Screw	Weight (Lbs.)
3900-0454	6"	6.50/165	5.12/130	6.00/142	1.77/45	4.29/109	2.56/65	0.20/5	0.16~6.50/4~165	2.17~5.91/55~150	3-M8	21
3900-0455	8"	7.87/200	6.50/165	7.09/180	2.56/65	4.80/122	2.95/75	0.20/5	0.16~7.87/4~200	2.56~7.87/65~200	3-M10	33
3900-0456	10"	9.84/250	8.11/206	8.90/226	3.15/80	5.35/136	3.15/80	0.20/5	0.24~9.84/6~250	3.54~9.84/90~250	3-M12	54
3900-0547	12"	12.4/315	10.24/260	11.22/285	3.94/100	6.18/157	3.54/90	0.24/6	0.29~12.4/10~315	3.94~12.4/100~315	3-M16	101

Pro-Series 4-JAW INDEPENDENT "D-1" LATHE CHUCKS - DIRECT MOUNT

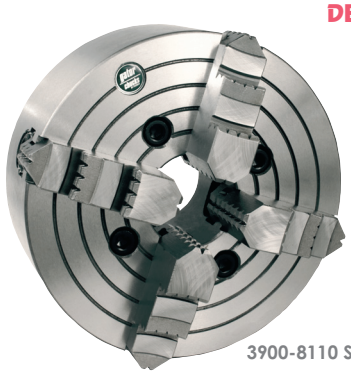
- Direct D1 camlock mount provides fast, secure chuck installation.
- Four independent reversible jaws accurately grip round, square, and irregular workpieces.
- Semi-steel body with hardened solid jaws delivers strength and long service life.
- Designed for precision turning, facing, boring, and off-center machining applications.
- Chucks with 10" diameter and up include a t-slot.
- Includes: 1 set of American Standard reversible jaws, chuck wrench, 2 hex keys, 2 eye bolts (10" and larger), and mounting bolts.

AMERICAN STANDARD





DESIGNED TO GRIP ROUND OR ODD SHAPED WORK





3900-8110 Shown

Item#	Chuck Dia. D	To Fit Spindle	Studs B.C. D2	Studs Included	Dia. of Stud	(Inch) Center Hole D3	D1	H	H1	h	Z-d
3900-8110	8"	D1-4	3.252	3	5/8	2.205	2.501	4.33	2.95	0.512	M10x1
3900-8111	8"	D1-5	4.126	6	3/4	2.205	3.251	4.33	2.95	0.590	M12X1
3900-8113	10"	D1-5	4.126	6	3/4	2.953	4.188	4.70	3.35	0.630	M16x1.5
3900-8114	10"	D1-6	5.252	6	7/8	2.953	4.188	4.70	3.35	0.630	M16x1.5
3900-8118	12"	D1-6	5.252	6	7/8	2.953	4.188	5.70	3.74	0.630	M16x1.5
3900-8122	12"	D1-8	6.748	6	1	3.740	5.501	5.70	3.74	0.709	M20x1.5
3900-8126	16"	D1-8	6.748	6	1	4.921	5.501	6.10	4.13	0.709	M20x1.5
3900-8130	20"	D1-11	9.252	6	1-3/16	4.921	7.751	7.07	4.72	0.787	M22X1.5

Larger sizes available

THREADED BACKPLATES FOR LATHE CHUCKS - With Bolt HOLE

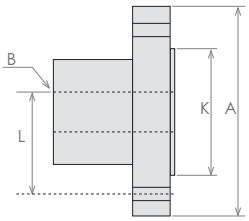
- Fits most plain back chucks.
- Made of high grade casting steel.
- Assembly instructions included.



THREADED MOUNT

For 3-Jaw Chucks

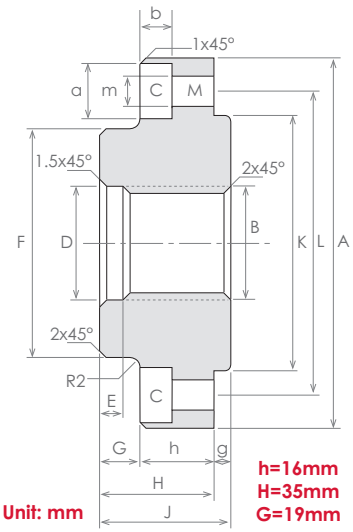
Item#	Chuck Size D
3900-3107	3
3900-3108	3
3900-3109	3
3900-3110	3
3900-3111	3
3900-3112	3
3900-3210	4
3900-3211	4
3900-3212	4
3900-3215	4





For 4-Jaw Chucks

Item#	Chuck Size D
3900-4129	3
3900-4130	3
3900-4131	3
3900-4132	3
3900-4133	3
3900-4141	4
3900-4142	4
3900-4143	4



Unit: mm

h=16mm
H=35mm
G=19mm

Item#	Chuck Size	Body Diameter A	Thread B	Bolt Hole C	Reg Dia D	Reg Len E	Hub Dia F	Boss Len g	All Len J (g+H)	Boss Dia K(mm/Inch)	Bolt Cir L (mm/Inch)	Bolt M	a	b	m
3900-3107	3"	80	3/4"~16	3	3/4"	4	50	3	38	55.5/2.2	66/2.6	M6	12	8	6.5
3900-3108	3"	80	1/2"~24	3	1/2"	4	50	3	38	55.5/2.2	66/2.6	M6	12	8	6.5
3900-3109	3"	80	1/2"~20	3	1/2"	4	50	3	38	55.5/2.2	66/2.6	M6	12	8	6.5
3900-3110	3"	80	1"~8	3	1"	5	50	3	38	55.5/2.2	66/2.6	M6	12	8	6.5
3900-3111	3"	80	1"~10	3	1"	5	50	3	38	55.5/2.2	66/2.6	M6	12	8	6.5
3900-3112	3"	80	1-1/2"~8	3	1-1/2"	6	50	3	38	55.5/2.2	66/2.6	M6	12	8	6.5
3900-4129	3"	80	1/2"~20	4	1/2"	4	50	3	38	55.5/2.2	66/2.6	M6	12	8	6.5
3900-4130	3"	80	3/4"~16	4	3/4"	4	50	3	38	55.5/2.2	66/2.6	M6	12	8	6.5
3900-4131	3"	80	1"~8	4	1"	5	50	3	38	55.5/2.2	66/2.6	M6	12	8	6.5
3900-4132	3"	80	1"~10	4	1"	5	50	3	38	55.5/2.2	66/2.6	M6	12	8	6.5
3900-4133	3"	80	1-1/2"~8	4	1-1/2"	6	50	3	38	55.5/2.2	66/2.6	M6	12	8	6.5
3900-3210	4"	100	1"~8	3	1"	5	66	3.5	38.5	72.5/2.9	84/3.3	M8	14	9	8.5
3900-3211	4"	100	1"~10	3	1"	5	66	3.5	38.5	72.5/2.9	84/3.3	M8	14	9	8.5
3900-3212	4"	100	1-1/2"~8	3	1-1/2"	6	66	3.5	38.5	72.5/2.9	84/3.3	M8	14	9	8.5
3900-4141	4"	100	1"~8	4	1"	5	66	3.5	38.5	72.5/2.9	84/3.3	M8	14	9	8.5
3900-4142	4"	100	1"~10	4	1"	5	66	3.5	38.5	72.5/2.9	84/3.3	M8	14	9	8.5
3900-4143	4"	100	1-1/2"~8	4	1-1/2"	6	66	3.5	38.5	72.5/2.9	84/3.3	M8	14	9	8.5
3900-3215	4"	100	M39x4	3	1-1/2"	5	66	3.5	38.5	72.5/2.9	84/3.3	M8	14	9	8.5

THREADED & BLANK BACKPLATES FOR LATHE CHUCKS - NO BOLT HOLE

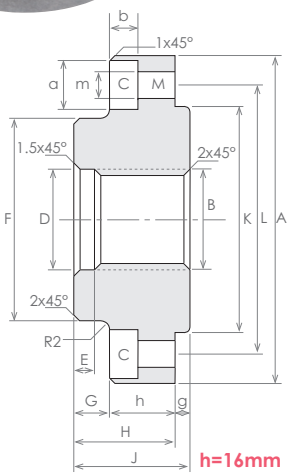


- Made of high grade casting steel.

NO BOLT HOLE BACKPLATES MACHINING REQUIRED BEFORE MOUNTING TO ENSURE CONCENTRICITY

For 3 & 4-Jaw Chucks

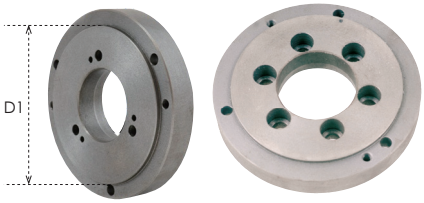
Item#	Chuck Size D	Thread Z-d	Body Diameter A	Thread B	Reg Dia D	Reg Len E	Hub Dia F	(mm) Hub Len G	Boss Len g	Face Len H (G+h)	All Len J (g+H)	Boss Dia K
3900-3304	4"	1"~8	100	1"-8	1"	5	56	10	3	26	29	72
3900-3306	4"	M39x4	100	M39x4	40mm	10	56	24	3	40	43	72
3900-3305	4"	None	100	None	10mm	10	56	24	3	40	43	72
3900-3308	5"	1"~8	130	1"~8	1"	5	56	10	4	26	30	100
3900-3309	5"	1"~10	130	1"~10	1"	6.35	56	10	4	26	30	100
3900-3311	6"	1"~8	160	1"~8	1"	10	56	10	4	26	30	130
3900-3312	6"	1"~10	160	1"~10	1"	NONE	56	10	4	26	30	130
3900-3313	6"	None	160	UNTHREADED	NONE	10	75	24	4	40	44	130
3900-3315	6"	1-1/2"~8	160	1-1/2"~8	1-1/2"	10	56	14	4	30	34	130
3900-3322	6"	2-1/4"~8	160	2-1/4"~8	2-1/4"	10	75	16	4	32	36	130
3900-3339	6"	M39 x 4	160	M39X4	40mm	10	56	24	4	40	44	130
3900-3324	8"	1-1/2"~8	200	1-1/2"~8	1-1/2"	10	56	24	6.35	40	46.35	124.46
3900-3326	8"	2-1/4"~8	200	2-1/4"~8	2-1/4"	10	75	24	6.35	40	46.35	124.46
3900-3340	8"	None	200	NONE	NONE	10	75	24	6.35	40	46.35	124.46



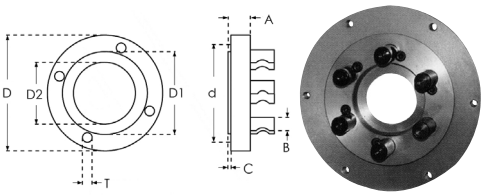
h=16mm

A , D & L MOUNT SEMI-MACHINED CHUCK ADAPTERS - BACK PLATES

- Back plates for universal chucks
- Plain-back chucks require the adapter plate to be machined before mounting to ensure concentricity



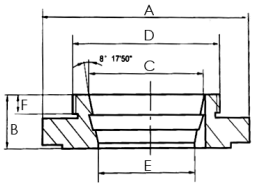
A-MOUNT



D-MOUNT

MADE OF HIGH GRADE CASTING STEEL

L-MOUNT





A-MOUNT

Item#	Chuck Size	Spindle	D1
3900-4841	8-1/4"	A1-5	6.555"
3900-4844*	10"	A1-8	8.189"
3900-4845	12"	A1-6	10.315"

D-MOUNT

Item#	Chuck Size,D	Spindle	Recess D1
3900-4822*	6"	D-3	2.125"
3900-4823	6"	D-4	2.501"
3900-4826*	8"	D-3	2.125"
3900-4827	8"	D-4	2.501"
3900-4898	8"	D-5	4.126"
3900-4829	8"	D-6	4.188"
3900-4835	10"	D-6	4.188"
3900-4837*	10"	D-8	5.501"
3900-4891*	12"	D-6	4.188"
3900-4892*	12"	D-8	5.501"
3900-4895*	15"	D-11	7.751"

L-MOUNT

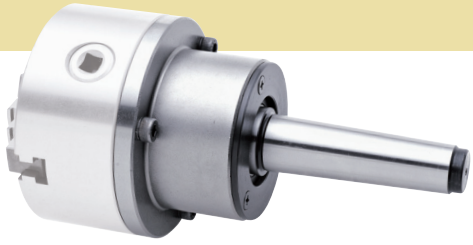
Item#	Chuck Size A	Spindle	Thread T-UNS3 D	B
3900-4847	6"	L-00	3-3/4~6	2.13"
3900-4849	8-1/4"	L-00	3-3/4~6	2.13"

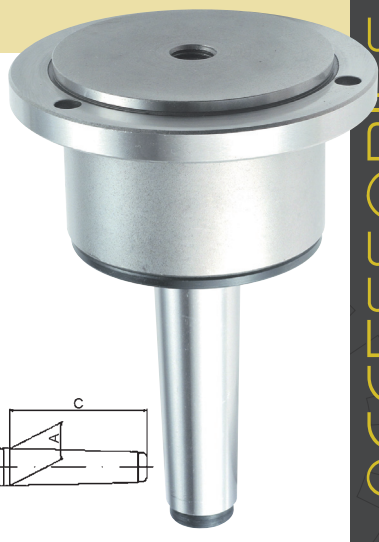
* Limited Supply

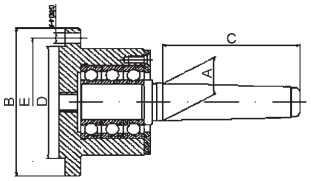
REVOLVING TAILSTOCK BACK PLATES

- Used for calibration or support workpiece during processing.
- Three ball bearings for heavy duty load and relatively high speed.
- 3 hole chuck mounting pattern is pre-drilled.

LATHE CHUCK OPTIONAL







Item#	Shank Taper	A	Fits Lathe Chuck	(mm) B	C	D	E	Max Load (lbs)	T.I.R. (Inch)	Speed RPM
3900-6022	MT2	17.78	3"	80	64	55	66	220	.0002	3500
3900-6021	MT2	17.78	4"	100	64	72	84	220	.0002	3000
3900-6023	MT3	23.85	3"	80	81	55	66	440	.0002	3500
3900-6026	MT3	23.85	4"	100	81	72	84	1100	.0002	3000
3900-6024	MT4	31.267	4"	100	103	72	84	1100	.0002	3000
3900-6025	MT5	44.399	5"	125	130	95	108	2200	.0004	2500
3900-6030	MT4	31.267	5"	125	103	95	108	2200	.0004	2000
3900-6031	MT5	44.399	6"	160	130	130	142	3300	.0004	2000

5C MOUNTS FOR 3&4 JAW LATHE CHUCKS
-5C Adapter with Standard Internal & External Threads

- 5C adapter body.
- 3 hole chuck mounting pattern is pre-drilled.
- Hardened and ground.





3 Inch
3900-4703

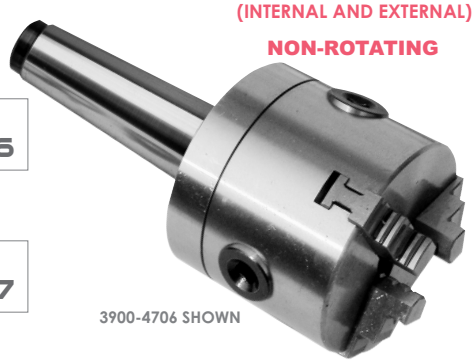
4 Inch
3900-4704

2MT MORSE TAPER SHANK
3 & 4-JAW SELF-CENTERING CHUCKS

- Steel body-hardened and ground scroll and pinions
- Hardened and ground MT spindle
- Supplied with chuck wrench.
- 3/8-16 threaded drawbar.
- 2 MT shank.
- T.I.R. 0.0006".

2 SETS OF SOLID STEEL JAWS (INTERNAL AND EXTERNAL)

NON-ROTATING



3", 3 JAW
3900-4706

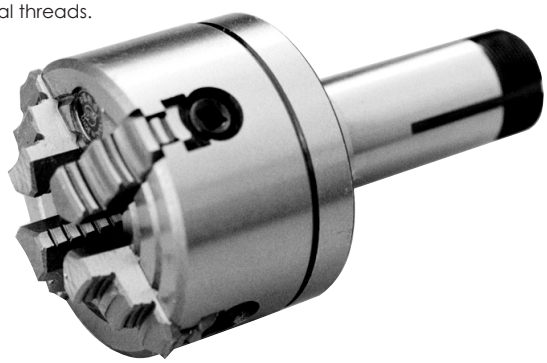
3", 4 JAW
3900-4707

3900-4706 SHOWN

LATHE CHUCKS & JAWS

5C 4-JAW INDEPENDENT LATHE CHUCKS

- Quick set up in fixtures and 5C spindles.
- Supplied with 1 set of reversible jaws.
- T.I.R. 0.0006".
- 5C adapter with standard internal and external threads.
- Supplied with chuck wrench.

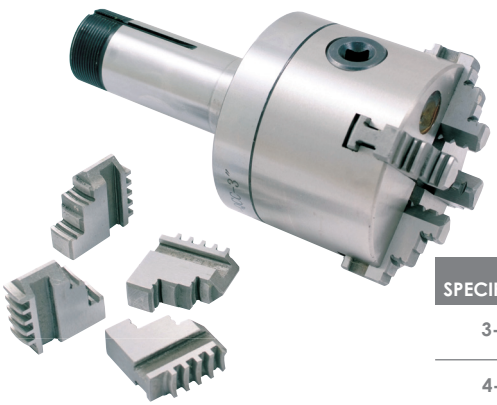


3", 4-JAW
3900-4712

4", 4-JAW
3900-4713

Chuck Size	Outside Diameter (Clamp Range)	Inside Diameter (Jam Range)	Hole thru. 5C Adapter	Hole throu. Chuck
3"	.062~2.50"	.700~2.50"	0.75"	0.63"
4"	.062~3.00"	.900~3.50"	0.75"	0.86"

5C MOUNT SELF-CENTERING 3 & 4-JAW LATHE CHUCKS



- Quick set up in fixtures and 5C spindles.
- Supplied with chuck wrench.
- T.I.R. 0.0006".
- Chuck jaws are self centering, scroll type.
- 5C adapter with standard internal and external threads.

2 SETS OF SOLID STEEL JAWS (INTERNAL AND EXTERNAL)

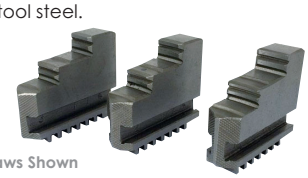
Item#	Chuck Size	Jaw
3900-4701	3"	3-Jaw
3900-4710	3"	4-Jaw
3900-4702	4"	3-Jaw
3900-4711	4"	4-Jaw

SPECIFICATION	Chuck Size	Outside Diameter (Clamp Range)	Inside Diameter (Jam Range)	Hole thru. 5C Adapter	Hole throu. Chuck
3-JAW	3"	0.079~2.480"	0.964~2.756"	0.75"	0.630"
	4"	0.079~3.150"	1.181~3.543"	0.75"	0.866"
4-JAW	3"	.062~2.50"	.700~2.50"	0.75"	0.800"
	4"	.062~3.00"	.900~3.50"	0.75"	0.950"

STEEL HARD INTERNAL & EXTERNAL JAW SETS - For K11 Lathe Chucks

- **Set includes 3pcs**
- Fits most of 3-jaw self-centering lathe chucks with replaceable **internal & external** jaws.
- Hardened tool steel.

FOR 3-JAW CHUCKS



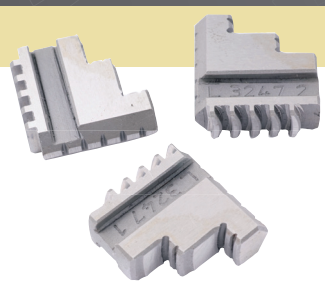
External Jaws Shown

EXTERNAL SET

Item#	Fits Chuck Size
3900-4730	3"
3900-4732	4"
3900-4734	5'
3900-4736	6"
3900-4738	8"

INTERNAL SET

Item#	Fits Chuck Size
3900-4740	3"
3900-4742	4"
3900-4744	5'
3900-4746	6"
3900-4748	8"

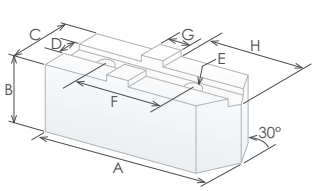


Internal Jaws Shown

TAIKI® 3 PC SOFT STEEL JAW SETS - AMERICAN STANDARD TONGUE & GROOVE

- Supplies maximum concentricity on finish turning operations
- Can be bored or turned to fit workpiece
- Jaws can be hardened
- Set includes 3 pcs

FOR USE ON: Buck, Bison, Cushman, Huron, PBA, Yuasa & Rohm Chucks





Chuck Size	CRITICAL DIMENSIONS				Tongue to Front H	Tongue Position C	Width Inch A	Length Inch B	Height Inch	Item #
	Groove Width D	Tongue Width G	Screw Size E	Hole Space F						
6	0.313	1/2	5/16	1.500	0.866	Offset	1-1/4	2-7/8	1-1/4	**3900-4756**
8	0.313	1/2	3/8	1.750	1.329	Offset	1-1/4	3-3/4	1-1/4	**3900-4758**
10	0.500	3/4	1/2	2.125	1.220	Offset	1-1/4	4-1/8	1-1/4	**3900-4760**
12	0.500	3/4	1/2	2.500	1.398	Offset	1-9/16	4-15/16	2-1/8	**3900-4762**

5C 5" COLLET CHUCKS

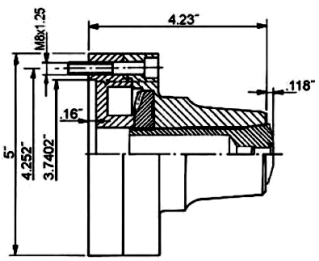
- Designed for use with 5C collets
- Used for turning, facing, boring, grinding and milling on center lathes and grinding machines
- Key-operated scroll provides a uniform distortion-free clamping of workpieces and low collet exchange times
- Chuck wrench included

T.I.R <0.0006"



D1-4 SHOWN



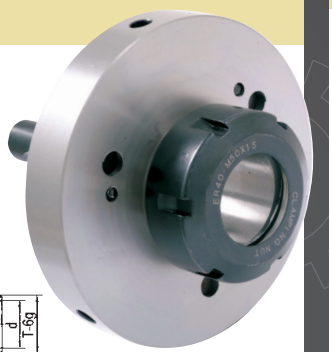


Item#	Spindle	Bolt Circle	Studs Included	Dis. of Studs
3900-4714	Plain Back	4.252"	--	---
3900-4715	D1-4	3.252"	3	5/8
3900-4717	D1-5	4.126"	6	3/4
3900-4716	D1-6	5.252"	6	7/8
3900-4718	D1-8	6.748"	6	1

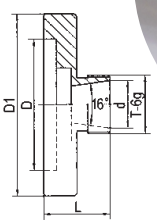
SPECIFICATIONS
Chuck Size.....5"
Collet capacity.....1/16-1-1/8"
Weight.....Approx. 13 lbs
Max. RPM.....6,000

ER-40 COLLET CHUCK FIXTURE
- Direct Mount

- Concentricity .0008"
- 5" diameter.
- Easily mount to lathe with D1 spindle.
- Accepts ER-40 collets.







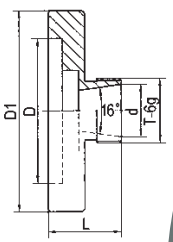
D1-3 Mount
3901-5041

D1-4 Mount
3901-5042

Item#	Mount	No. of Stud	Dia. of Stud	D1 (mm)	D (mm)	L (mm)
3901-5041	D1-3	3	9/16"	125	54	42
3901-5042	D1-4	3	5/8"	125	64	42

ER COLLET FIXTURES

- Mount to your choice of backplate for using on a lathe or could be used as a fixture on a milling table.
- Concentricity .0016"



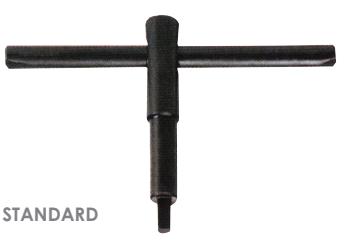




Item#	Type	No. of Bolt Hole	Bolt Hole Circle (mm)	Bolt Hole Size	D1 (mm)	D (mm)	L (mm)
3901-5016	ER-16	4	35	5mm	45	22	25
3901-5032	ER-32	3	66	M6	80	55	42
3901-5033	ER-32	3	84	M8	100	72	42
3901-5034	ER-32	3	115	M8	130	100	42
3901-5036	ER-40	3	84	M8	100	72	42
3901-5038	ER-40	3	115	M10	132	100	42

CHUCK WRENCHES/KEYS

- Made of high quality tool steel.
- Hardened & tempered.
- Heavy duty construction.



STANDARD





SELF-EJECT

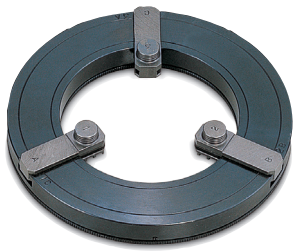
Square Head Size	Standard Item#	Self-Eject Item#
15/64"(6mm)	3900-4862	----------
9/32"(7.15mm)	3900-4863	----------
15/32"(12mm)	3900-4864	----------
1/4"(6.35mm)	3900-4865	----------
5/16"(8mm)	3900-4866	3900-4857
3/8"(9.5mm)	3900-4867	3900-4853
7/16"(11.2mm)	3900-4868	----------
1/2"(12.7mm)	3900-4869	3900-4855
9/16"(14.3mm)	3900-4870	----------
5/8"(16mm)	3900-4871	----------
3/4"(19mm)	3900-4873	----------

BORING RINGS & STEEL JAWS

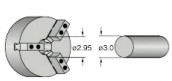
TAIKI® TL-JAW BORING RINGS - For Boring Soft & Round Jaws

- Suitable for CNC lathe.
- Ideal for machining soft jaws.
- Attaches to front of jaws without tools, compensating for "jaw lift".
- Applies equal pressure on all jaws.
- Since no discs or bungs are used to clamp jaws, through boring of jaws is possible.

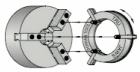
For 6, 8, 10" Chuck
3900-4668



How to install:
1. Place the jaw boring ring over our chuck and locate the bring ring pins in the counterbore of your chuck jaws
2. Turn the jaw boring ring until snug
3. Activate your jaws
- The jaw boring ring will apply equal pressure on all jaws, allowing for a consistent bore.



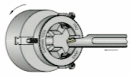
1. Set the jaws for the required job. The diameter of the jaws must be set smaller than the part diameter.



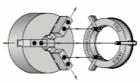
2. adjust the Boring Rings to fit into the bolt holes of the soft jaws. Then, rotate the body of the Boring Rings until sung, pulling the jaws rigid in the opposite direction of the clamping force(away from the part to be held).



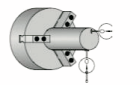
3. Lock the chuck. Jaws must be locked in the direction of the part to be held. The soft jaws will then be held rigidly by the Boring Rings as if holding the part.



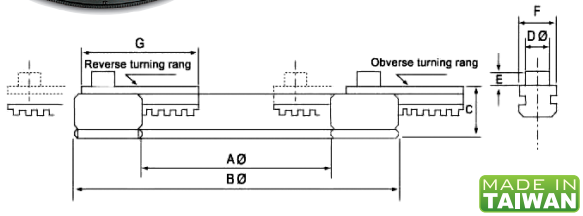
4. Machine the diameter desired. The bore diameter must be precise with the diameter of the part to be held.



5. Remove the Boring Rings. Unlock the chuck opposite th the locking direction.



6. Chuck the part. If these steps are followed correctly, the part will be true within . 0002" T.I.R.



MADE IN TAIWAN

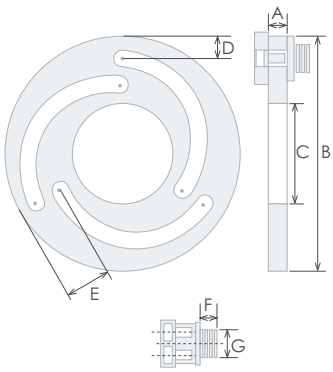
Item#	Chuck Size	Dimensions (Inch) A	B	C	D(dia)-E	F-G	Jaw Stroke (ea.)	Max. Speed (RPM)
3900-4666	5,6,8"	3.94	6.7	1.02	.512~.28	.748~2.4	7.4	800
3900-4668	6,8,10"	4.92	7.9	1.02	.642~.32	.748~2.4	7.4	700
3900-4669	8,10,12"	6.30	9.8	1.22	.720~.32	.945~3.2	8.5	600

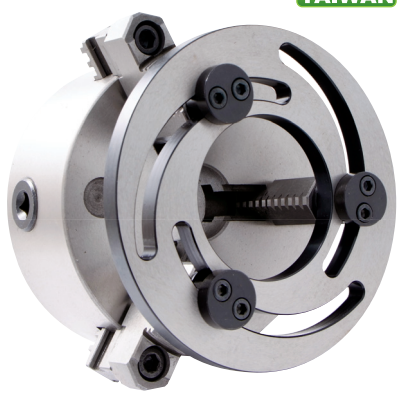
TAIKI® JAW BORING RINGS - For Boring Soft & Round Jaws

How to install:
1. Place the jaw boring ring over our chuck and locate the bring ring pins in the counterbore of your chuck jaws
2. Turn the jaw boring ring until snug
3. Activate your jaws
- The jaw boring ring will apply equal pressure on all jaws, allowing for a consistent bore.

- Since no discs or bungs are used to clamp jaws, through boring of jaws is possible.
- Attaches to front of jaws without tools, compensating for "jaw lift".
- Suitable for CNC lathe.
- Ideal for machining soft jaws.
- Applies equal pressure on all jaws.

MADE IN TAIWAN





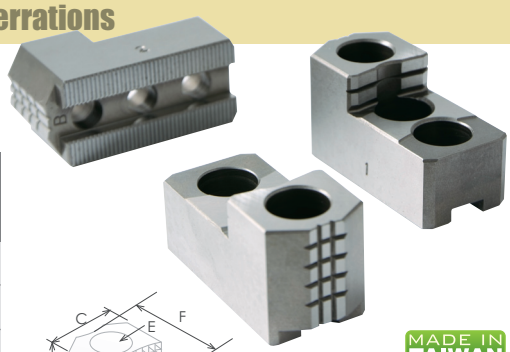
Item#	Chuck Size	Dimensions (Inch) A	B	C	D	E	F	G
3900-4650	5"	.47	5.5	2.36	.47	1.10	.35	.51
3900-4651	6"	.47	6.6	3.15	.47	1.26	.35	.65
3900-4654	8"	.47	8.6	4.53	.59	1.42	.35	.73
3900-4656	10"	.47	10.2	5.91	.67	1.57	.35	.73
3900-4658	12"	.59	12.4	7.40	.83	1.97	.35	.96
3900-4660*	15"	.79	15.0	9.06	.91	2.05	.63	1.22

* Limited Supply

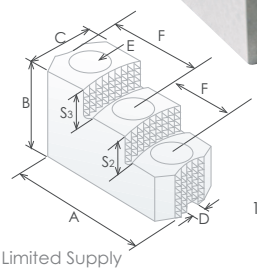
TAIKI® BEST-GRIP HARD STEEL JAWS - 1.5 mm x 60 Degree Serrations

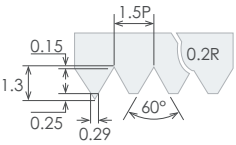
FOR USE ON: Kitagawa, Samchully, Strong, MMK, SMW Autoblok, Howa & Hitachi-Seiki Chucks

- Supplies maximum concentricity on finish turning operations
- Set includes 3 pcs



MADE IN TAIWAN





Chuck Size	CRITICAL DIMENSIONS Groove Width D	Screw Size E	Hole Space F	No. of Holes	No. of Steps	Step Height S2	Step Height S3	Width Inch C	Length Inch A	Height Inch B	(set of 3) Item#
6	0.472 (12mm)	M10	0.787 (20mm)	3	1	0	0.47	1.22	2.64	1.42	3900-4671*
8	0.551 (14mm)	M12	0.984 (25mm)	3	2	0.47	0.47	1.38	3.39	2.01	3900-4673
10	0.630 (16mm)	M12	1.181 (30mm)	3	2	0.55	0.55	1.57	3.94	2.13	3900-4675
12	0.709 (18mm)	M14	1.181 (30mm)	3	1	0	0.79	1.97	4.45	2.05	3900-4677*
12	0.827 (21mm)	M16	1.181 (30mm)	3	1	0	0.79	1.97	4.45	2.05	3900-4678*
15	0.866 (22mm)	M20	1.693 (43mm)	3	2	0.73	0.73	2.44	5.63	3.39	3900-4680
15	1.005 (25.5mm)	M20	1.693 (43mm)	3	2	0.73	0.73	2.44	5.63	3.39	3900-4681*

* Limited Supply

TAIKI® 3 PC SOFT JAW SETS - 1.5 mm x 60 Degree Serrations

- Supplies maximum concentricity on finish turning operations.
- Can be bored or turned to fit workpiece.
- Jaws can be hardened.
- Made of steel.
- Set includes 3 pcs.

MADE IN TAIWAN



FOR USE ON: Kitagawa, Samchully, Strong, MMK, SMW Autoblok, Howa & Hitachi-Seiki Chucks

Chuck Size	CRITICAL DIMENSIONS Groove Width D	Screw Size E	Hole Space F	Hole to Front H	Width Inch C	Length Inch A	Height Inch B	STEEL (set of 3) Item #	ALUMINUM (set of 3) Item #
4	0.394 (10mm)	5/16 (M8)	0.551 (14mm)	1-1/16	0.91	2.00	0.91	3900-4684	-------
6	0.472 (12mm)	3/8 (M10)	0.787 (20mm)	1-1/2	1.22	2.87	1.18	3900-4686	3900-4766*
8	0.551 (14mm)	1/2 (M12)	0.984 (25mm)	1.811	1.38	3.74	1.46	3900-4688	3900-4768
10	0.630 (16mm)	1/2 (M12)	1.181 (30mm)	1.969	1.57	4.33	1.65	3900-4690	3900-4770*
12	0.710 (18mm)	0.55 (M14)	1.181 (30mm)	2.362	1.89	5.08	1.89	3900-4692	3900-4772*
12	0.827 (21mm)	0.63 (M16)	1.181 (30mm)	2.362	1.89	5.08	1.89	3900-4693	3900-4773
15	0.866 (22mm)	0.787 (M20)	1.690 (43mm)	3.346	2.44	6.50	2.44	3900-4695	3900-4775
15	1.003 (25.5mm)	0.787 (M20)	1.690 (43mm)	3.346	2.44	6.50	2.44	3900-4696	3900-4776*

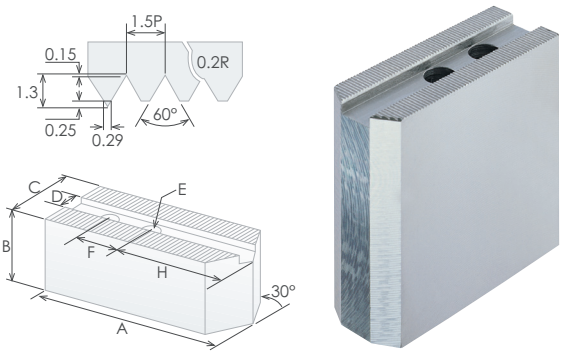
* Limited Supply

TAIKI® 3 PC EXTRA HEIGHT SOFT STEEL JAW SETS - 1.5mm x 60 Deg Serrations

FOR USE ON: Kitagawa, Samchully, Strong, MMK, SMW Autoblok, Howa & Hitachi-Seiki Chucks

- Extra-height jaws are suitable for longer workpiece, such as 4" length workpiece will need jaws with over 3" height which will increase the accuracy and stability of production process.
- Supplies maximum concentricity on finish turning operations.
- Price is for a set of 3 jaws.
- Jaws can be hardened.
- Can be bored or turned to fit workpiece.

MADE IN TAIWAN



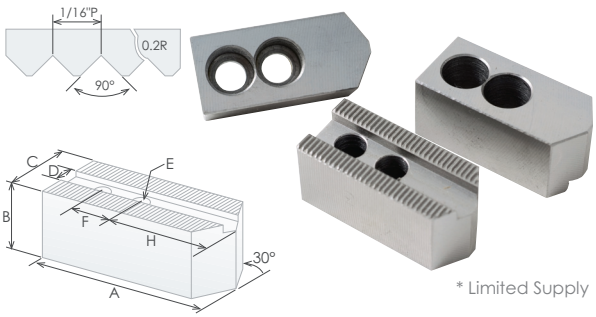
Chuck Size	CRITICAL DIMENSIONS Groove Width D	Screw Size E	Hole Space F	Hole to Front H	Jaw Width C	Jaw Length A	Jaw Height B	(set of 3) Item #
6	0.472 (12mm)	3/8 (M10)	0.787 (20mm)	1-1/2	1.22	2.87	2.36 (60mm)	3900-5656
6	0.472 (12mm)	3/8 (M10)	0.781 (20mm)	1-1/2	1.22	2.87	3.15 (80mm)	3900-5658*
8	0.551 (14mm)	1/2 (M12)	0.984 (25mm)	1.811	1.38	3.74	2.36 (60mm)	3900-5660
8	0.551 (14mm)	1/2 (M12)	0.984 (25mm)	1.811	1.38	3.74	3.15 (80mm)	3900-5662
8	0.551 (14mm)	1/2 (M12)	0.984 (25mm)	1.811	1.38	3.74	3.94 (100mm)	3900-5663
10	0.630 (16mm)	1/2 (M12)	1.181 (30mm)	1.969	1.57	4.33	2.36 (60mm)	3900-5665
10	0.630 (16mm)	1/2 (M12)	1.181 (30mm)	1.969	1.57	4.33	3.15 (80mm)	3900-5667
10	0.630 (16mm)	1/2 (M12)	1.181 (30mm)	1.969	1.57	4.33	3.94 (100mm)	3900-5668*
12	0.710 (18mm)	0.55 (M14)	1.181 (30mm)	2.362	1.89	5.08	3.15 (80mm)	3900-5670*
12	0.710 (18mm)	0.55 (M14)	1.181 (30mm)	2.362	1.89	5.08	3.94 (100mm)	3900-5672

* Limited Supply

TAIKI® 3 PC SOFT STEEL JAW SETS - 1/16" x 90 Degree Serrations

- Supplies maximum concentricity on finish turning operations
- Can be bored or turned to fit workpiece
- Jaws can be hardened, steel material SAE1045
- Set includes 3 pcs

MADE IN TAIWAN



* Limited Supply

FOR USE ON: SMW Autoblok, Rohm, Pratt Burnerd & Other Chucks

Chuck Size	CRITICAL DIMENSIONS Groove Width D	Screw Size E	Hole Space F	Hole to Front H	Width Inch C	Length Inch A	Height Inch B	(set of 3) Item #
6	0.669 (17mm)	12mm	0.875 (22mm)	1.417	1.22	2.87	1.18	3900-4642
8	0.669 (17mm)	12mm	0.875 (22mm)	1.929	1.38	3.74	1.46	3900-4644*
10	0.669 (17mm)	12mm	0.875 (22mm)	2.283	1.57	4.33	1.65	3900-4646
12	0.827 (21mm)	16mm	1.102 (28mm)	2.520	1.89	5.08	1.89	3900-4648*

KDK STYLE QUICK CHANGE TOOLS

KDK STYLE 6 PC TOOL POST & HOLDERS SETS

- Interchangeable with KDK same series.
- All working parts hardened and ground.
- **Lathe Swing:**
  8-12" (0 Series)
  12~16"(100 Series),
  15~18" (150 Series),
  18~24"(200 Series)
- **Lock Down Bolt Diameter:**
  7/16"(0 & 100 Series) ,
  5/8" (150 Series),
  3/4" (200 Series)
- **Center Height:**
  .750" & Up (0 Series)
  1.000" & Up (100 Series)
  1.250" & Up (150 Series)
  1.500" & Up (200 Series)

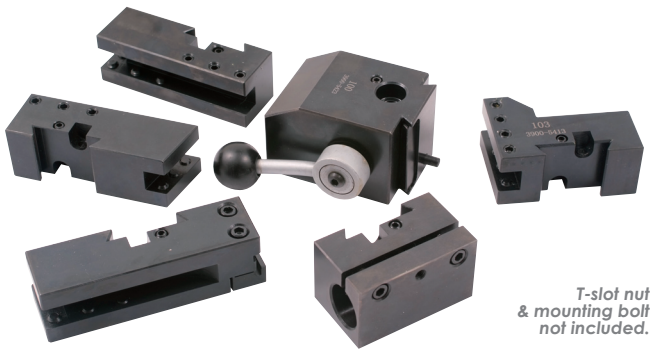
6PC/SET INCLUDES
Holders:
No. 1 - Turning & Facing
No. 2 - Threading & Facing
No. 3 - Extension Turning Bar
No. 4 - Parting Bar
No. 5 - Master Bar For Boring Bars
Tool Post: KDK Body

#0 Series Set **3900-5424**

#100 Series Set **3900-5425**

#150 Series Set **3900-5426**

#200 Series Set **3900-5427**



T-slot nut & mounting bolt not included.

KDK STYLE 0, 100, 150, 200 TOOL POSTS

- Interchangeable with KDK same series.
- All working parts hardened and ground.
- **Lathe Swing:**
  8-12" (0 Series), 12~16"(100 Series),
  15~18" (150 Series), 18~24"(200 Series)
- **Lock Down Bolt Diameter:**
  7/16"(0 & 100 Series), 5/8" (150 Series),
  3/4" (200 Series)
- **Center Height:**
  .750" & Up (0 Series)
  1.000" & Up (100 Series)
  1.250" & Up (150 Series)
  1.500" & Up (200 Series)

#0 Series Post **3900-5422**

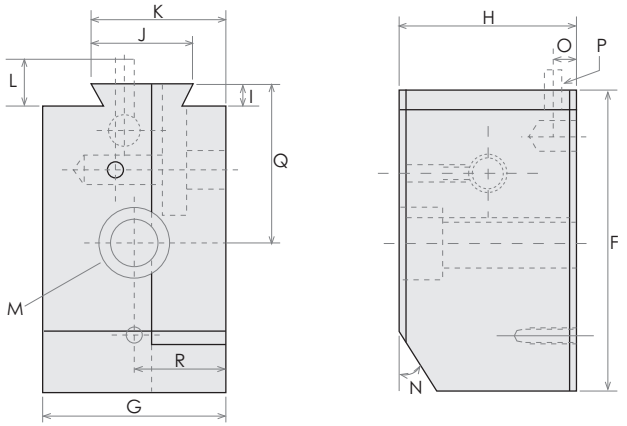
#100 Series Post **3900-5423**

#150 Series Post **3900-5457**

#200 Series Post **3900-5458**



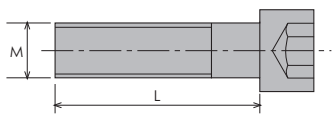
T-slot nut & mounting bolt not included.

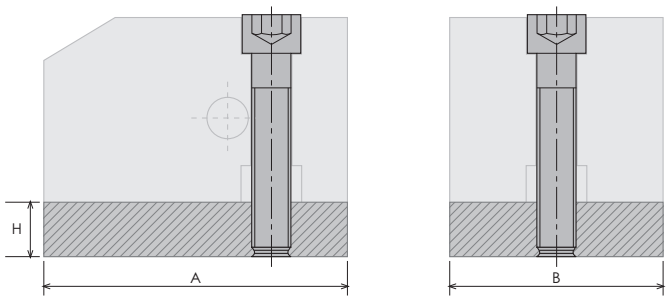


Body No.	(Inch) F	G	H	I	J	K	L	M	N	O	P	Q	R
0	3.00	2.25	1.62	.312	1.750	1.875	.687	7/16	30°	.312	1/4	.687	1.343
100	3.50	2.50	2.25	.312	1.750	2.215	.687	7/16	30°	.331	1/4	.875	1.375
150	4.37	2.50	2.25	.312	1.750	2.215	.687	5/8	30°	.331	5/16	2.312	1.250
200	5.00	2.87	3.00	.312	1.750	2.215	.687	3/4	30°	.331	5/16	2.562	1.437

T-NUT BLANKS AND SCREW BOLTS FOR KDK STYLE TOOL POSTS

- T-nut blank can be machined to fit.





Item#	Fits Post No.	Blank Dimensions (Thick. H x B x A)	Bolt Thread M x L
3900-5436	100	1/2 x 1-1/2 x 2-1/4"	7/16-20UNF x 2.17"
3900-5437	100	5/8 x 2-1/4 x 2-3/4"	7/16-20UNF x 2.32"
3900-5438	100	3/4 x 2-1/2 x 3"	7/16-20UNF x 2.44"
3900-5439	150	5/8 x 2-1/4 x 2-3/4"	5/8-18UNF x 2.09"
3900-5440	150	3/4 x 2-1/2 x 3"	5/8-18UNF x 2.17"
3900-5441	150	7/8 x 2-1/2 x 3-1/2"	5/8-18UNF x 2.36"
3900-5442*	150	1 x 3 x 4-1/2"	5/8-18UNF x 2.36"
3900-5443	200	7/8 x 2-1/2 x 3-1/2"	3/4-16UNF x 2.95"
3900-5444*	200	1 x 3 x 4-1/2"	3/4-16UNF x 2.95"
3900-5445*	200	1-1/2 x 4 x 5"	3/4-16UNF x 3.54"

* Limited Supply

5C COLLET BAR KDK STYLE 119 TOOL HOLDER

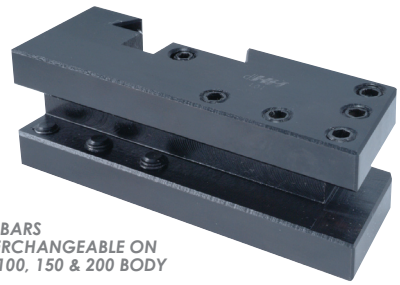
- No. 119 holder is for KDK-100, 150 & 200 quick change tool post.
- Assures the simplicity of preset quick change tools to all 5 C collet jobs.
- For lathes having 1" Center Height or more.
- Spanner Wrench and Lock Ring included.
- All working parts hardened and ground.

Holder No. 119 **3900-5419**



Replaement Ring Nut & Wrench (Item#3900-5420)

TURNING AND FACING BAR COMBINATION KDK STYLE 01, 101, 151, 201 TOOL HOLDERS



ALL BARS INTERCHANGEABLE ON 01, 100, 150 & 200 BODY

- Interchangeable with KDK same series tool holders.
- All working parts hardened and ground.

Item#	Holder No.	Wt. (lbs.)	Tool Bit Capacity	Lathe Swing
3900-5410	01	1.0	3/8"	8~12"
3900-5411	101	1.8	1/2"	12~16"
3900-5451	151	3.3	5/8"	15~18"
3900-5431	201	4.5	3/4"	18~24"
3900-5448	201-1	4.1	1"	18~24"

THREADING AND FACING BAR COMBINATION KDK STYLE 01, 102, 152, 202 TOOL HOLDERS



ALL BARS INTERCHANGEABLE ON 01, 100, 150 & 200 BODY

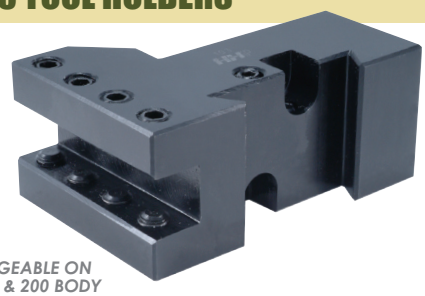
- Interchangeable with KDK same series tool holders.
- All working parts hardened and ground.

Item#	Holder No.	Wt. (lbs.)	Tool Bit Capacity	Lathe Swing
3900-5402	02	1.0	3/8"	8~12"
3900-5412	102	2.0	1/2"	12~16"
3900-5452	152	4.0	5/8"	15~18"
3900-5432	202	4.8	3/4"	18~24"
3900-5449	202-1	4.4	1"	18~24"

EXTENSION TURNING BAR COMBINATION KDK STYLE 03, 103, 153, 203 TOOL HOLDERS

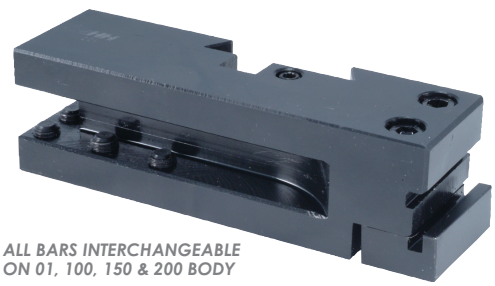
- Interchangeable with KDK same series tool holders.
- All working parts hardened and ground.

Item#	Holder No.	Wt. (lbs.)	Tool Bit Capacity	Lathe Swing
3900-5403	03	1.0	3/8"	8~12"
3900-5413	103	1.8	1/2"	12~16"
3900-5453	153	3.3	5/8"	15~18"
3900-5433	203	4.5	3/4"	18~24"
3900-5450	203-1	4.0	1"	18~24"



ALL BARS INTERCHANGEABLE ON 01, 100, 150 & 200 BODY

PARTING BAR COMBINATION KDK STYLE 04, 104, 154, 204 TOOL HOLDERS



ALL BARS INTERCHANGEABLE ON 01, 100, 150 & 200 BODY

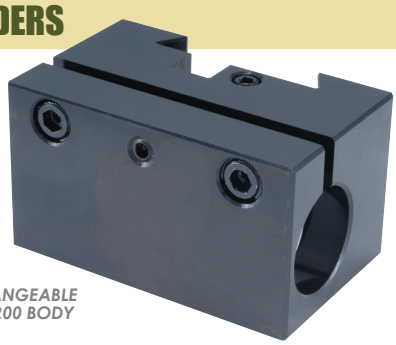
- Interchangeable with KDK same series tool holders.
- All working parts hardened and ground.

Item#	Holder No.	Wt. (lbs.)	Tool Bit Capacity (Thick. x Width)	Lathe Swing
3900-5404	04	1.5	3/32x1/2"	8~12"
3900-5414	104	2.3	1/8X11/16"	12~16"
3900-5454	154	4.3	1/8X7/8"	15~18"
3900-5434	204	5.0	1/8X1-1/8"	18~24"

MASTER BAR FOR BORING BARS KDK STYLE 05, 105, 155, 205 TOOL HOLDERS

- Interchangeable with KDK same series tool holders.
- All working parts hardened and ground.

Item#	Holder No.	Wt. (lbs.)	Boring Bar Capacity	Lathe Swing
3900-5405	05	1.3	3/4" Hole	8~12"
3900-5415	105	1.5	1" Hole	12~16"
3900-5455	155	3.8	1-1/4" Hole	15~18"
3900-5435	205	5.3	1-1/2" Hole	18~24"
3900-5429	205-1-3/4	8.1	1-3/4" Hole	18~24"
3900-5430	205-2	7.8	2" Hole	18~24"

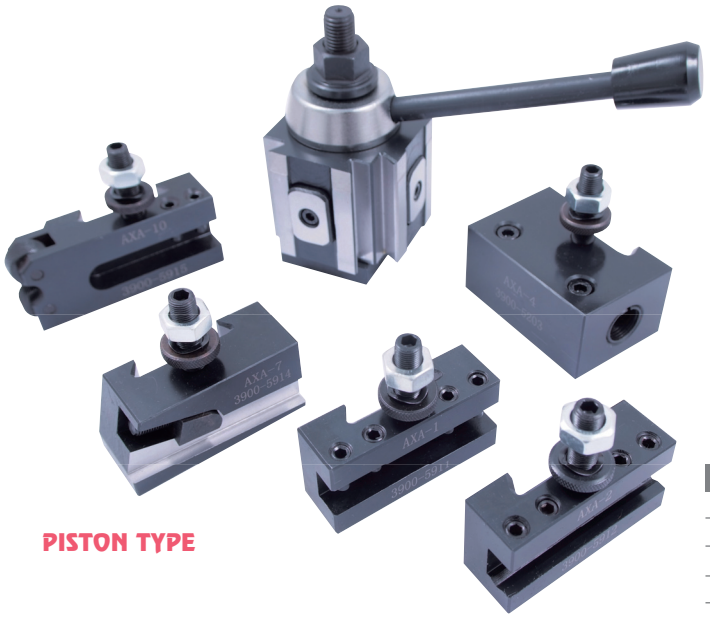


ALL BARS INTERCHANGEABLE ON 01, 100, 150 & 200 BODY

6 PC QUICK-CHANGE TOOL POST SETS - Piston Type

- Interchangeable with Aloris® and DORIAN® same series tool holders.
- All working parts hardened and ground.
- Completely sealed for maintenance-free operation.
- Increases productivity of all lathe operations.
- T-nut can be machined to fit.

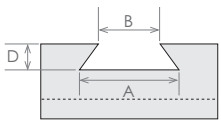
HHIP PRO-SERIES



PISTON TYPE

Interchangeable with **Aloris®** and **DORIAN®** same series

BXA Series
3900–5920



Dimension of Dovetails

6 PC SET INCLUDES

Holders:
- No. 1 - Turning & Facing;
- No. 2 - Boring, Turning & Facing
- No. 4 - Boring, Heavy Duty;
- No. 7 - Universal parting blade
- No.10 - Knurling, Facing & Turning

Tool Post: Piston Type

Series	Item#	A	B	D	Swing Capacity
AXA	**3900-5910**	1.64"	1.37"	0.383"	**up to 12"**
BXA	**3900-5920**	1.65"	1.41"	0.411"	**10~15"**
CXA	**3900-5230**	2.16"	1.68"	0.565"	**13~18"**
CA	**3900-5260**	2.62"	2.21"	0.493"	**14~20"**

6 PC QUICK-CHANGE TOOL POST SETS - Wedge Type

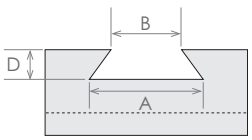
- Interchangeable with Aloris® and DORIAN® same series tool holders.
- All working parts hardened and ground.
- Completely sealed for maintenance-free operation.
- Increases productivity of all lathe operations.
- Precision design to assure repetitive accuracy.
- T-nut can be machined to fit.

HHIP PRO-SERIES

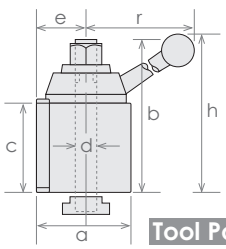
Interchangeable with **Aloris®** and **DORIAN®** same series

AXA Series
3900–5105

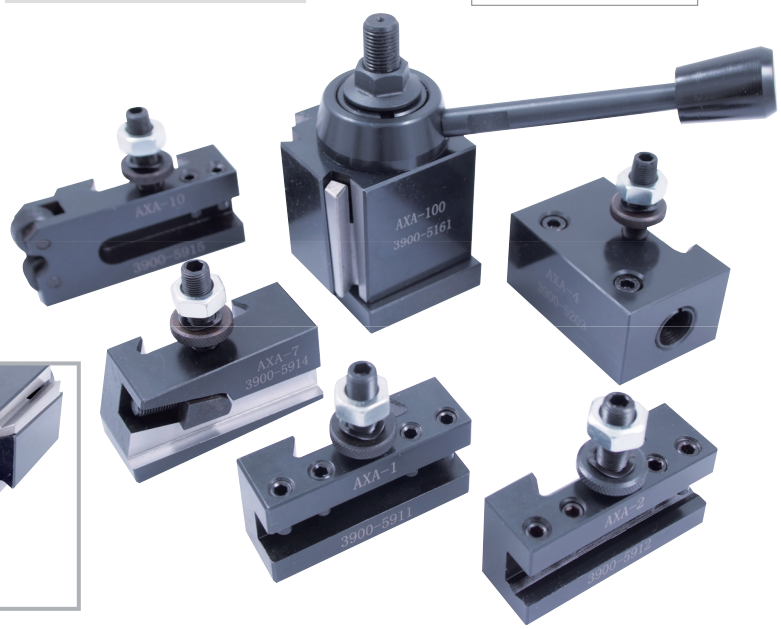
WEDGE TYPE

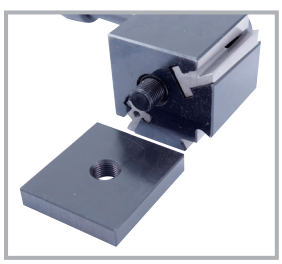


Dimension of Dovetails



Tool Post





6 PC SET INCLUDES

Holders:
- No. 1 - Turning & Facing;
- No. 2 - Boring, Turning & Facing
- No. 4 - Boring, Heavy Duty;
- No. 7 - Universal parting blade(4°)
- No.10 - Knurling, Facing & Turning

Tool Post: Wedge Type

Series	Item#	A	B	D	a	b	c	d	e	h	r	Swing Capacity
0XA	**3900-5100**	1.10"	0.92"	.257"	1-3/4	2-3/4	1-9/16	3/8	7/8	3-1/4	3-7/8	**up to 8"**
AXA	**3900-5105**	1.64"	1.37"	.383"	2-1/2	3-7/8	2-1/4	9/16	1-3/8	4-11/16	5-3/4	**up to 12"**
BXA	**3900-5120**	1.65"	1.41"	.411"	3	4-5/8	2-3/4	5/8	1-5/8	5-9/16	7-5/16	**10~15"**
CXA	**3900-5130**	2.16"	1.68"	.565"	3-1/2	5-1/8	3	3/4	1-7/8	6-1/8	7-7/8	**13~18"**
CA	**3900-5140**	2.62"	2.21"	.493"	4	6-1/4	3-5/8	7/8	2-1/8	7	9	**14~20"**
DA	**3900-5160**	3.25"	2.72"	.600"	5	7-5/8	4-5/8	7/8	2-11/16	8-1/4	10-7/8	**17~48"**

6 PC OXA MINI QUICK-CHANGE TOOL POST & HOLDER SETS - With Two No 1 Holders

- This true wedge type tool post set has maximum rigidity and provide chatter free performance.
- All working parts are hardened and ground. It is completely sealed for maintenance-free operation.
- Quick change tool post set for lathes with up to 9" swing. It requires 3/4" from the top of the compound rest to the center of the lathe.
- 60% of AXA, or series 100 size wedge type QCTP.



Swing Capacity up to 9"
3900-5102

KIT INCLUDES - 4° Parting Tool
Tool post,
2-#1turning & facing tool holders,
1- #2 boring,
turning & facing tool holder,
1-#4 heavy duty boring tool holder,
1-#7 4° universal parting tool holder

- It will hold turning tools with shanks from 1/4" to 1/2". The boring bar holder will hold 3/8" and 1/2" boring bars. It will hold 1/2" tall cut-off blades.
- This tool post mounts with an M10 stud that is included. It also includes a piece of steel from which you can make a T-slot nut to fit your lathe.
- All steel construction
- T-nut can be machined to fit.



Swing Capacity up to 9"
3900-5101

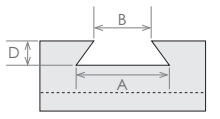
KIT INCLUDES - 0° Parting Tool
Tool post,
2-#1turning & facing tool holders,
1-#2 boring,
turning & facing tool holder,
1-#4 heavy duty boring tool holder,
1-#7T 0° Universal parting tool holder

QUICK-CHANGE TOOL POSTS - Wedge Type

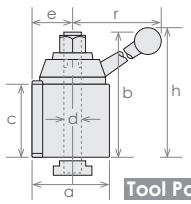
- All working parts hardened and ground.
- Completely sealed for maintenance-free operation

HHIP PRO-SERIES

Interchangeable with ***Aloris***® and ***DORIAN***® same series



Dimension of Dovetails



Tool Post





WEDGE TYPE

Series	Item#	A	B	D	a	b	c	d	e	h	r	Swing Capacity
0XA	3900-5460	1.10"	0.92"	.257"	1-11/16	2-19/32	1-1/2	3/8	15/16	3-9/64	3-27/32	up to 9"
AXA	3900-5161	1.64"	1.37"	.383"	2-1/2	3-7/8	2-1/4	9/16	1-3/8	4-11/16	5-3/4	up to 12"
BXA	3900-5121	1.65"	1.41"	.411"	3	4-5/8	2-3/4	5/8	1-5/8	5-9/16	7-5/16	10~15"
CXA	3900-5131	2.16"	1.68"	.565"	3-1/2	5-1/8	3	3/4	1-7/8	6-1/8	7-7/8	13~18"
CA	3900-5141	2.62"	2.21"	.493"	4	6-1/4	3-5/8	7/8	2-1/8	7	9	14~20"
DA	3900-5162	3.25"	2.72"	.600"	5	7-5/8	4-5/8	7/8	2-11/16	8-1/4	10-7/8	17~48"

Replacement Screws
-For Aloris Type Turning & Facing Holders

- Replace worn or lost hold down screws.



FITS TURNING&FACING HOLDERS

Item#	Series	Size
3900-5472	0XA	M6X16
3900-5919	AXA	M8X20
3900-5476	BXA	M8X30
3900-5478	CXA	M10X28
3900-5480	CA	M12X32
3900-5482	DA	M12X32



FITS #7 HOLDERS

Item#	Series	Size
3900-5473	0XA	M6X48
3900-5474	0XA-T	M6X48
3900-5475	AXA	M8X70
3900-5477	BXA	M8X82
3900-5479	CXA	M10X93
3900-5481	CA	M10X104
3900-5483	DA	M10X134

STUD FITS #7 HOLDERS

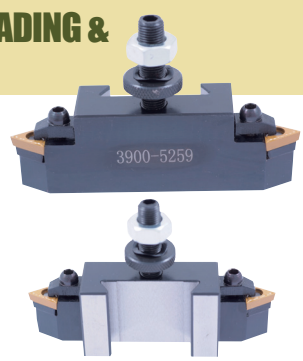
Item#	Series	Size
3900-5913	AXA	M8X70mm



NO. 16E - INDEXABLE THREADING & FACING HOLDERS

- Unique design allows you to use both sides for threading cut.
- Supplied with fully adjustable carbide chip breaker and carbide shims.
- Two triangular carbide inserts included.

Interchangeable with ***Aloris***® and ***DORIAN***® same series

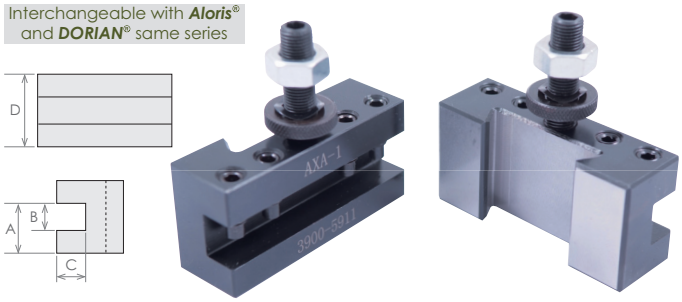


Item#	Series	Description
3900-5259	AXA	Holder with TCMT-32.51inserts
3900-5925	BXA	Holder with TCMT-32.51 inserts
6004-9031		TCMT-32.51 TiN Carbide Insert

QUICK-CHANGE TOOL HOLDERS

NO. 1 - TURNING & FACING HOLDERS

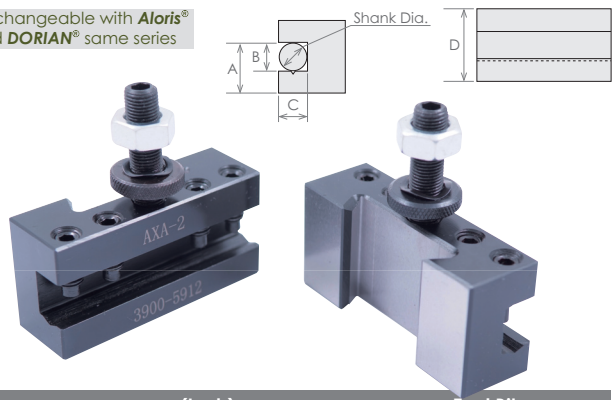
Interchangeable with ***Aloris***® and ***DORIAN***® same series



Item#	Series	(Inch) A	B	C	D	Tool Bit Capacity
3900-5461	0XA	5/8	1/2	5/16	1	Up to 1/2
3900-5911	AXA	15/16	1/2	7/16	1-1/2	3/16~1/2
3900-5931	AXA-1S	1-3/64	5/8	9/16	1-1/2	1/4~5/8
3900-5261	BXA	1-1/8	5/8	1/2	1-3/4	1/4~5/8
3900-5934	BXA-1S	1-13/64	3/4	5/8	1-3/4	1/2~3/4
3900-5231	CXA	1-7/16	3/4	5/8	2-1/8	1/2~3/4
3900-5941	CA	1-11/16	1	3/4	2-1/2	1/2~1
3900-6001	DA	3-3/16	1-1/4	1	3-1/8	3/4~1-1/4

NO. 2 - BORING, TURNING & FACING HOLDERS

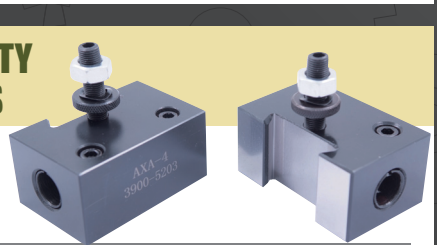
Interchangeable with ***Aloris***® and ***DORIAN***® same series

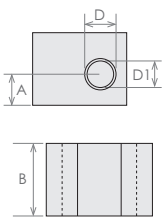


Item#	Series	(Inch) A	B	C	D	Tool Bit Capacity	Shank
3900-5462	0XA	5/8	1/2	5/16	1	Up to 1/2	7/24
3900-5912	AXA	15/16	1/2	7/16	1-1/2	3/16~1/2	7/16
3900-5932	AXA-2S	1-1/32	5/8	9/16	1-1/2	1/4~5/8	1/2
3900-5262	BXA	1-1/8	5/8	1/2	1-3/4	1/4~5/8	1/2
3900-5935	BXA-2S	1-7/32	3/4	5/8	1-3/4	1/2~3/4	3/4
3900-5232	CXA	1-7/16	3/4	5/8	2-1/8	1/2~3/4	3/4
3900-5942	CA	1-11/16	1	3/4	2-1/2	1/2~1	13/16
3900-6002	DA	3-3/16	1-1/4	1	3-1/8	3/4~1-1/4	1

NO. 4 - HEAVY DUTY BORING HOLDERS

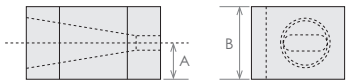
Interchangeable with ***Aloris***® and ***DORIAN***® same series

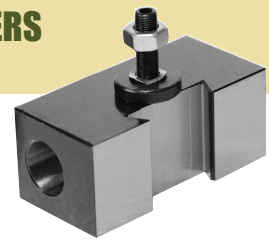




Item#	Series	Inside A	B	D	D1
3900-5464	0XA	1/2	1	1/2	5/12
3900-5203	AXA	3/4	1-1/2	3/4	5/8
3900-5204	BXA	1	2	1	3/4
3900-5233	CXA	1	2	1	3/4
3900-5206	CA	1-3/8	2-3/4	1-1/4	1
3900-6004	DA	1-9/16	3-1/8	1-1/2	1-1/4

NO. 5 - MORSE TAPER HOLDERS FOR DRILLING

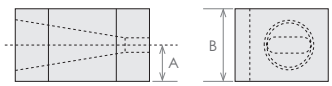




Item#	Series	Taper Hole	A	B
3900-5226	0XA	MT2	1/2	1-1/4
3900-5947*	CA	MT 3	1-1/4	2-1/2

* Limited Supply

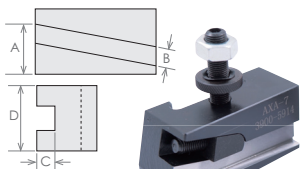
NO. 53, 54, 55 - MORSE TAPER HOLDERS FOR DRILLING





Item#	Series	Taper Hole	A	B
3900-5258	AXA	MT 3	3/4	1-1/2
3900-5228	BXA	MT 3	7/8	1-3/4

NO. 7 - UNIVERSAL PARTING BLADE HOLDERS



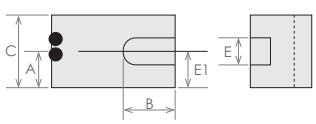
3900-5467 Shown

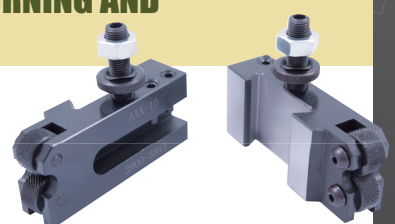
3900-5468 Shown

Item#	Series	Parting Angle	A	B	C	D
3900-5467	0XA	4°	13/16	1/2	1/8	1
3900-5468	0XA	0°	5/8	1/2	1/8	1
3900-5914	AXA	4°	13/16	1/2	3/16	1-1/2
3900-5264	BXA	4°	1	11/16	3/16	1-3/4
3900-5234	CXA	4°	1-3/16	3/4	3/16	2
3900-5944	CA	4°	1-7/16	7/8	1/4	2-1/2
3900-6007	DA	4°	1-3/4	1-1/8	1/4	2-3/4

See page 334 for parting blades.

NO. 10 - KNURLING, TURNING AND FACING HOLDERS





Item#	Series	A	B	(Inch) C	E	E1	Capacity Tool Bit
3900-5470	0XA	1/2	1-3/4	1-1/8	7/16	3/8	Up to 1/2
3900-5915	AXA	7/8	2-1/2	1-9/16	1/2	3/8	3/16~1/2
3900-5225	BXA	1	2-5/8	1-3/4	5/8	1/2	1/4~5/8
3900-5236	CXA	1-3/16	3-1/8	2	3/4	5/8	1/2~3/4
3900-5946	CA	1-7/16	3-3/4	2-1/2	1	3/4	1/2~1
3900-6010	DA	1-7/8	4-1/2	3-1/8	1-1/4	1	1/2~1-1/4

5 PC MINI QUICK-CHANGE TOOL POST & HOLDER KIT

- Fits 7x10, 7x12 and 7x14 mini lathes
- No tools required to change tools
- Made of aluminum

Aluminum
3900-5350



Limited Supply!

KIT INCLUDES
Tool post, Two turning tool holders, a boring tool holder and a cut-off blade holder

ACCEPT
- **Turning Holder: 1/4-3/8" Shank**
- **Boring Holder: 3/8" Shank**
- **Cut-off Blade Holder: 1/2"**

RETROFIT GTN CUT-OFF AND GROOVING BLADES

- Used on Aloris and DORAIN Type Quick-Change Tool Holders
- High performance rates. No more re-grinding. Insert indexability.
- Also can use GTL, GTR inserts.

INSERT IS NOT INCLUDED



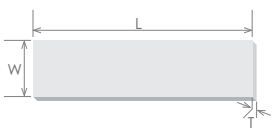
FOR GROOVING, PARTING-OFF AND CHAMFERING

Item#	Fits Holder	HSS Blade Reference	Blade Height	Cutting Width	Overall Length	Use Insert
3900-5971	AXA-7	P2	1/2	.087&.093"	4-11/32	GTN/R/L 2
3900-5973	BXA-7	P3N	11/16	.087&.093"	4-11/32	GTN/R/L 2
3900-5975	BXA-7	P3, T3	11/16	.120"	4-11/32	GTN/R/L 3
3900-5977	CXA-7	P3W	3/4	.120"	4-11/32	GTN/R/L 3
3900-5979	CA-7	P5X	7/8	.120"	5-29/32	GTN/R/L 3
3900-5981*	CA-7	P5N	7/8	.160"	5-29/32	GTN/R/L 4

See page 163 for inserts.

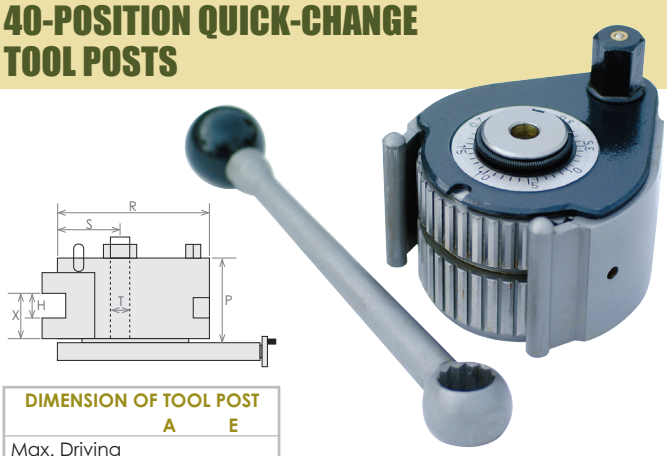
CUT-OFF BLADES, BEVELED





(Inch) Size (T x W x L)	HSS Item#	5% COBALT Item#
3/32 x 1/2 x 4-1/2	2000-1002	2000-1102
3/32 x 5/8 x 5	2000-1003	2000-1106
1/8 x 1/2 x 4-1/2	2000-1000	2000-1110
1/8 x 3/4 x 5	2000-1004	2000-1114
1/8 x 7/8 x 6	2000-1005	2000-1118

40-POSITION QUICK-CHANGE TOOL POSTS



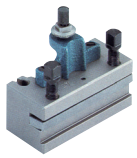
DIMENSION OF TOOL POST	A	E
Max. Driving Power (HP)	3	6
R Maximum	4.13"	5.14"
S Maximum	2.07"	2.57"
P	1.83"	2.30"
T	0.79"	0.79"
H	0.83"	0.94"
X Minimum	1.18"	1.37"
X Maximum	1.61"	2.04"

All Holders Are Interchangeable With Most of 40-Position Tool Post A, E & B

Item#	Series	Swing
3900-5310	A	6~13"
3900-5320	E	10~18"

40-POSITION QUICK-CHANGE TOOL HOLDERS

All Holders Are Interchangeable With Most of 40-Position Tool Post A, E & B



HOLDER A

HOLDER A - Cut-off			
Fit Post	Item#	Fits Blade Width	Holder Length
A	3900-5391	0.41"	3.16"
E	3900-5327	0.63"	4.00"
B	3900-5332	0.63"	4.75"



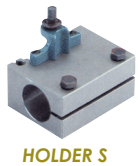
HOLDER B

HOLDER B - Boring, Turning & Facing			
Fit Post	Item#	Max. Holding Dia.	Holder Length
A	3900-5304	0.75"	3.54"
E	3900-5321	1.00"	4.00"
B	3900-5331	1.00"	5.00"



HOLDER D

HOLDER D - Turing & Facing			
Fit Post	Item#	Max Holding Height	Holder Length
A	3900-5305	0.75"	3.54"
E	3900-5322	0.75"	4.00"
B	3900-5335	1.25"	5.50"



HOLDER S

HOLDER S - Heavy-Duty Boring & Drilling			
Fit Post	Item#	Holder Hole Dia.	Holder Length
E	3900-5323	1-5/8"	4.00"
B	3900-5336	1-5/8"	4.75"



BUSHINGS For Holder S			
Fit Post	Item#	Taper	Holder Hole Dia.
E	3900-5326	MT2	1-3/16"
E	3900-5324	MT3	1-5/8"

KNURLING TOOLS

3K REVOLVING HEAD KNURLING TOOLS

- Machined ground steel in shiny black finish.
- Knurls are hob cut from high speed steel and heat treated.
- Provided with one pair each of fine, medium and coaraw knurls.
- Replacement knurts are offered as a complete spare set for knurling tools.



Item#	Holder size W x H x L	Knurl Dimensions Dia. x Thickness x Hole
2220-0008	1/2 x 1-1/8 x 6-1/2"	3/4 x 3/8 x 1/4"
2220-0010	5/8 x 1-3/8 x 7-1/2"	3/4 x 3/8 x 1/4"

SINGLE KNURLING TOOLS



- **Precision Single Knurling Tool** – Designed for clean, consistent knurling on lathes, producing uniform patterns on metal surfaces.
- **Hob-Cut HSS Knurl Wheel** – Knurl is hob cut from high-speed steel and heat treated for long tool life and sharp, reliable performance.
- **Machined Ground Steel Holder** – Durable steel body with a black oxide finish provides strength, stability, and corrosion resistance.
- **Smooth Rolling Action** – Single knurl wheel rotates freely for controlled pressure and improved surface finish.
- **Ideal for Manual & Engine Lathes** – Commonly used for straight knurling on shafts, knobs, handles, and cylindrical workpieces.

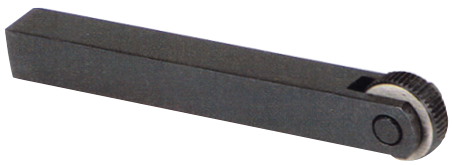


Item#	Holder size W x H x L	Knurl Dimensions Dia. x Thickness x Hole
2220-0040	1/2 x 1/2 X 4"	3/4 x 1/4 x 1/4"
2220-0044	3/4 x 3/4 X 5"	3/4 x 3/8 x 1/4"

SINGLE KNURLING TOOL

Features:

- Supplied with medium cut high speed steel knurl.
- Each holder includes one medium pitch.
- Holder size 4 x 5/8 x 5/8.
- Straight (AA) pattern knurl.



Knurl Size: 3/4x1/4x1/4"

2220-0004

PIVOT HEAD KNURLING TOOL - Diamond Pattern

- Self-adjusting pivot head.
- Holder shank size: 4-1/2x1/2x1/2"
- Knurls Dimension: 3/4(Diameter)x3/8(Thickness)x1/4" (Hole).
- Produces medium diamond pattern.



2220-0005

PIVOT HEAD KNURLING TOOLS - Diamond Pattern



- **Self-Adjusting Pivot Head Design** – Automatically aligns knurl wheels to the workpiece for even pressure and consistent diamond knurl patterns.
- **Medium Diamond Knurl Pattern** – Produces a clean, uniform diamond finish ideal for improving grip on shafts, knobs, and handles.
- **HSS Knurl Wheels** – Durable high-speed steel knurls deliver long tool life and reliable cutting performance on steel and other metals.
- **Reduced Chatter & Tool Stress** – Pivoting head helps distribute cutting forces evenly, minimizing chatter and improving surface finish.
- **Compatible with Manual & Engine Lathes** – Designed for professional machinists and metalworking applications.



Item#	Holder size W x H x L	Knurl Dimensions Dia. x Thickness x Hole
2226-0005	1/2 x 1/2 X 4-1/2"	3/4 x 3/8 x 1/4"
2226-0007	3/4 X 3/4 X 5"	3/4 x 3/8 x 1/4"

SELF ADJUSTING KNURLING TOOLS

- Machined ground steel in shiny black finish.
- Knurls are hob cut from high speed steel and heat treated.
- Provided with one pair of medium knurls.
- Replacement knurls are offered as a complete spare set for knurling tools.



Item#	Holder size W x H x L	Knurl Dimensions Dia. x Thickness x Hole
2220-0027	1/2 x 1-1/8 x 6-1/2"	3/4 x 3/8 x 1/4"
2220-0029	5/8 x 1-3/8 x 7-1/2"	3/4 x 3/8 x 1/4"

QUICK ACTING KNURLING TOOLS

- Fast set up knurling tool.
- Minimizes pressure on lathes
- Depth of knurling impression can be preset for production work.
- Finished with one set of medium diamond pattern knurts 3/4" x 3/8" x 1/4" (19 x 9.5 x 6.35)



Item#	Length	Shank H x W	Knurl Dimensions	Capacity
2220-0022	6"	1/2 x 5/8"	3/4x3/8x1/4"	1/16-2-1/4"
2220-0024	8-1/4"	5/8 x 3/4"	3/4x3/8x1/4"	1-1/2-4-1/2"

HSS KNURLING WHEELS & KIT

- High speed steel.
- Dimension: 3/4 (O.D.)x3/8 (Width)x1/4" (Hole)

SOLD AND SUPPLIED IN PAIRS



Pitch	Lines (Inch)	Diamond Item#	Straight Item#
Coarse	14	2220-0014	2220-0214
Medium	21	2220-0016	2220-0216
Fine	33	2220-0018	2220-0218



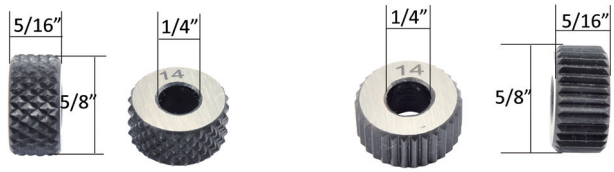
4 PAIR KIT (8 pcs)
2220-0030

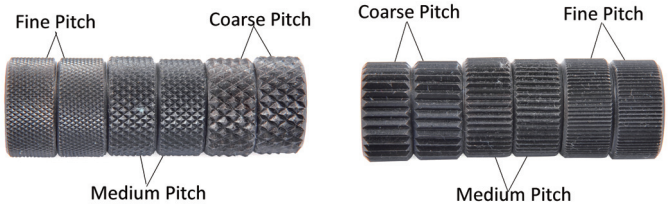
Kit Includes:
1 Pair of Diamond Coarse(14 lines/Inch),
Diamond Medium(21 Lines/Inch),
Diamond Fine(33 Lines/Inch)
& Straight Medium(21 Lines/Inch)

KNURLING WHEEL REPLACEMENT SETS

- Versatile and easy-to-use, these knurling wheel sets offer different patterns for diverse applications, enhancing the functionality and appearance of machined surfaces.
- **Thickness:** 5/16" wide.
- **Packaging:** Sold in pairs.
- **Patterns:** Available in Coarse, Medium, Fine, Diamond Pattern, and Straight Pattern.
- **Uses:** Ideal for adding textured patterns to workpieces for improved grip or aesthetic appeal.
- **How They Work:** The knurling wheels engage with the work piece surface. As pressure is applied, the wheels create the selected pattern through a rolling process. Patterns vary in aggressiveness, providing options for different applications.
- **Variety:** Coarse, Medium, and Fine for varying degrees of texture. Diamond Pattern for a unique surface finish. Straight Pattern for linear knurling effects.

SOLD IN PAIRS





Pitch	TPI	Diamond Item#	Straight Item#
Coarse	14	2220-0314	2220-0114
Medium	21	2220-0316	2220-0116
Fine	33	2220-0318	2220-0118

Dimensions

Diameter		Thickness		Bore	
Inch	mm	Inch	mm	Inch	mm
5/8	16	5/16	7.90	1/4	6.35

SENSITIVE DRILL TAILSTOCK ATTACHMENTS

- **Precise Manual Feed Control** – Gives the operator direct hand control over drilling pressure for superior feel and accuracy—ideal for fine and delicate work.
- **Smooth, Controlled Travel (Up to 1"(25mm))** – Provides steady, consistent feed without relying on tailstock handwheel sensitivity, reducing chatter and tool breakage.
- **Reduces Drill Breakage** – Helps prevent snapping small or expensive drill bits, especially in sizes under 1/16", improving tool life and consistency.
- **Ideal for Fine & Delicate Operations** – Perfect for precision drilling, tapping, reaming, and small-hole work in metal, plastic, electronics, and repair applications.
- **Easy Tailstock Installation** – Installs quickly into most lathe tailstocks using standard Morse Taper shanks (MT2 or MT3 depending on model).

Item#	Taper
3906-4876	MT2 X JT2
3906-4878	MT2 X JT3
3906-4880	MT2 X JT33
3906-4884	MT3 X JT2
3906-4886	MT3 X JT3
3906-4890	MT3 X JT33



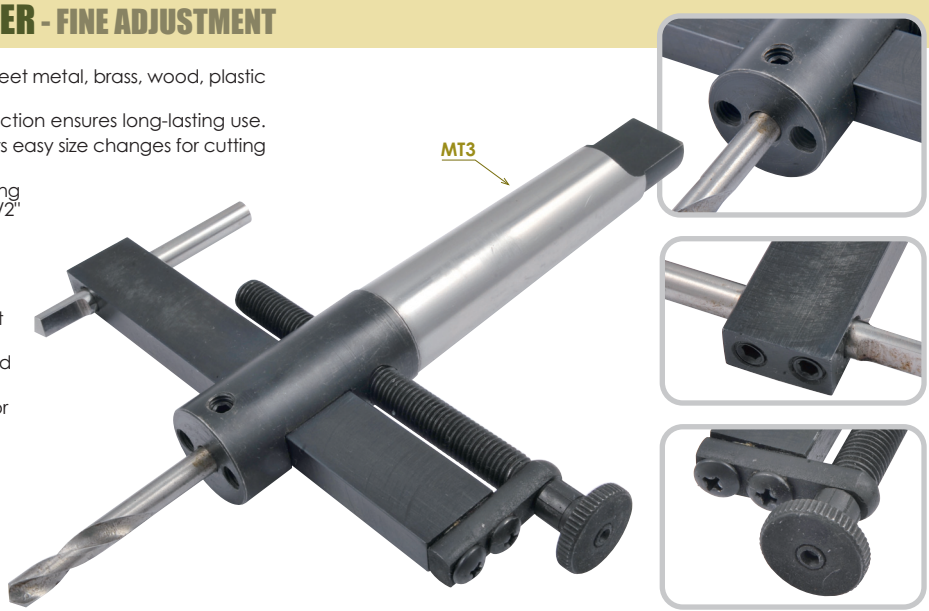


3906-4890 Shown

8-1/2" MT3 SHANK CIRCLE CUTTER - FINE ADJUSTMENT

- **Precision Cutting** – Produces accurate circles in sheet metal, brass, wood, plastic hard boards, aluminum, and soft steel.
- **High-Quality Materials** – Sturdy & durable construction ensures long-lasting use.
- **Adjustable Diameter** – Fine adjustment knob allows easy size changes for cutting different diameter circles.
- **Interchangeable Tips** – HSS cutting bits and centering points are replaceable for extended tool life. 8-1/2" cutting diameter
- **Versatile Shank** – MT3 shank fits most standard machines.
- **User-Friendly Operation** – Simple mechanism — rotate the knob to set desired diameter and start cutting.
- **Safe & Reliable** – Maximum recommended speed is 500 RPM to prevent accidents.
- **Complete Kit** – Includes a drill and hex wrench for easy assembly and adjustments.

3006-0018

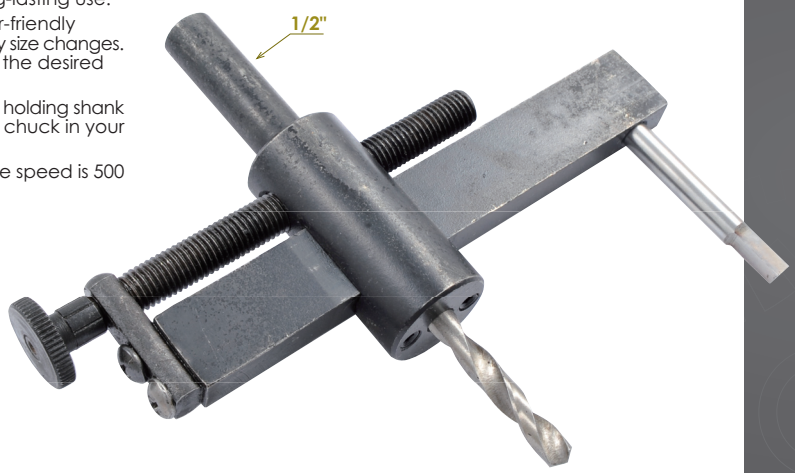


8-1/2" SHANK CIRCLE CUTTER - FINE ADJUSTMENT

- Produces precision circles in sheet metal, brass, wood, plastic hard boards, aluminium and soft steel
- The HSS cutting bits and centering points are replaceable.
- Fine adjustable for cutting different diameter circles
- **Cutting Range:** 1-3/4 to 8-1/2" diameter
- **Shank diameter:** 1/2"
- **Sturdy & Durable Design:** Constructed with high-quality materials for long-lasting use.
- **Easy-to-Use Mechanism:** User-friendly adjustable mechanism for easy size changes. Simply rotate the knob to set the desired diameter and start cutting.
- **Functions:** The Straight parallel holding shank can be easily held with a drill chuck in your machine.
- Maximum recommended safe speed is 500 RPM.
- **Includes:** Drill and wrench.



8-1/2 x 1/2"
3006-0008



MORSE TAPER TAILSTOCK TURRETS

- Taper: Morse Taper.
- Fill tool socket with 5/8" diameter.
- Head Diameter: 2-1/2".
- Will save time quick change machining operation within seconds.



Item#	Taper	Drawbar End
3900-4910	MT 2	3/8"~16
3900-4909	MT 3	3/8"~16

MT TO JT REVOLVING TAILSTOCK ARBORS/ADAPTERS

- This is a "live" drill chuck adapter with smooth, sealed bearing for the tailstock.
- Use it to mate with a JT drill chuck and support small diameter work where a live center is not practical.
- The shank is 2 or 3 Morse taper.



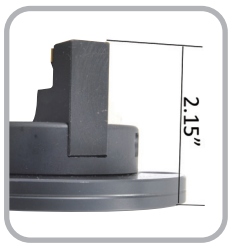
Item#	Taper	Drawbar Thread
3906-4922	MT 2 x JT2	M10
3906-4925	MT2 x JT3	M10
3901-4910	MT2 x JT33	M10
3906-4928*	MT3 x JT2	M12
3906-4932	MT3 x JT3	M12

* Limited Supply

BALL TURNING ATTACHMENT FOR LATHE - Uses TNMG Insert

- The HHIP ball-turning attachment for a lathe helps shape spherical objects and cones on a lathe. It consists of a base, tool holder, and an adjustable mechanism to control the size of the ball.
- The tool holder positions the cutting tool; the attachment includes rotation control and stability features. This tool simplifies the process of turning balls on a lathe, making it more precise
- The bearing base in our ball-turning attachment enables the cutting arm to rotate smoothly through the use of a handle.
- This tool fits straight onto the cross slide of your Myford and similar size lathes.
- Includes one indexable TNMG insert for best turning process.







3906-5311

MORSE TAPER TURNING ATTACHMENTS - For Lathe

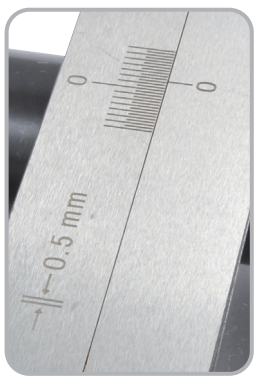
- Made from alloy steel, hardened and ground.
- This attachment makes the taper turning operation much easier than before and gives you the freedom of old school method of off setting the tailstock for turning taper profile on lathe machine.
- 2 side knobs are being provided for fine and easy adjustments up to 6 degrees left and right.
- Graduation scale is being marked for user's reference where 1 division will offset the slide by 0.5 mm.



MT2 Shank
3906-5071



MT3 Shank
3906-5072



BENT TAIL LATHE DOGS

- Bent lathe dogs are a type of lathe dog that can engage with a chuck jaw or driving faceplate slot. They are used to clamp workpieces and transmit the rotary motion of a machine's spindle to the workpiece.
- When using lathe dogs, it is important to be careful as it is easy to get snagged on them. Some tips for using lathe dogs include:
  - Using headless setscrews that do not protrude above the dog's outer surface
  - Counterbalancing or reducing spindle speed if the rotating mass of the dog setup is not balanced
- Manufactured from high tensile, malleable cast iron
- A "V" groove in the body help in clamping round jobs firmly.
- Square head bolts.



3906-3050 Shown

Item#	Capacity (In)
3906-3050	1/2
3906-3052	3/4
3906-3054	1
3906-3056	1-1/2
3906-3058	2
3906-3060	2-1/2
3906-3062	3



3906-3062 Shown

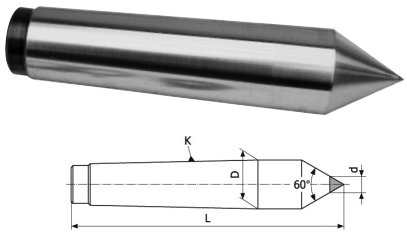


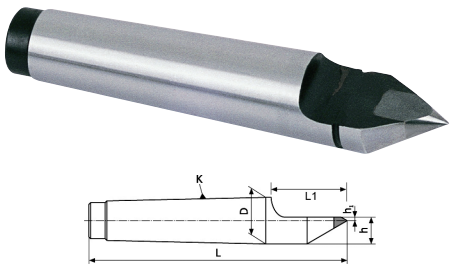
DEAD & LIVE CENTERS

DEAD CENTERS
- Full, Half, Steel Or With Carbide Tip

- **Available in full point, half point, steel, or carbide-tipped styles** to suit a wide range of turning applications.
- **Hardened and precision ground alloy steel construction** provides long service life and dependable accuracy.
- **Carbide-tipped models resist wear** for extended performance in high-production environments.
- **Precision concentricity up to 0.0002" TIR** helps improve machining accuracy and workpiece finish.



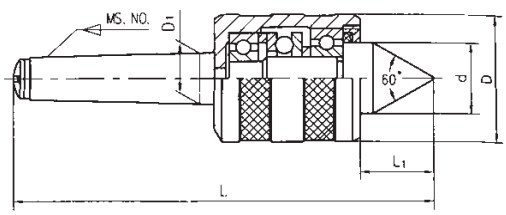


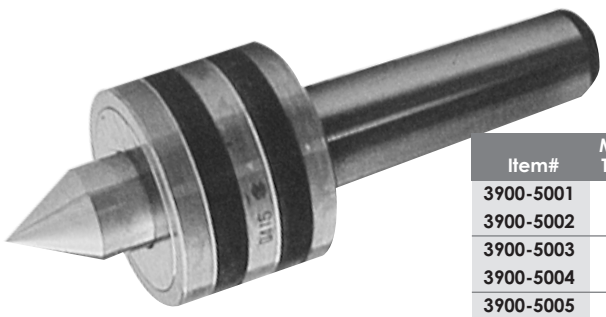


Morse Taper	(mm) h1	h	d	D	L1	L	Accuracy	Full Point Steel Item#	Full Point Carbide Tipped Item#	Half Point Steel Item#	Half Point Carbide Tipped Item#
1 MT	1.5	5.5	8	12.065	35	80	0.01	**3900-5051**	**3900-5056**	**3900-6051**	**3900-6056**
2 MT	2	6	8	17.78	43	100	0.01	**3900-5062**	**3900-5057**	**3900-6052**	**3900-6057**
3 MT	3	9	12	23.825	57	125	0.01	**3900-5063**	**3900-5058**	**3900-6053**	**3900-6058**
4 MT	5	12.5	15	31.267	70	160	0.01	**3900-5064**	**3900-5059**	**3900-6054**	**3900-6059**
5 MT	7	16	18	44.399	90	200	0.01	**3900-5065**	**3900-5060**	**3900-6055**	**3900-6060**

ECONOMY LIVE CENTERS

- **Precision-ground alloy steel spindle** delivers accurate support for general-purpose turning.
- **Combination ball and thrust bearings** provide smooth rotation and reliable performance.
- **Front dust seal protects internal bearings** from chips, dirt, and contaminants for longer service life.
- **Available in multiple Morse taper sizes** to fit a wide variety of engine lathes.





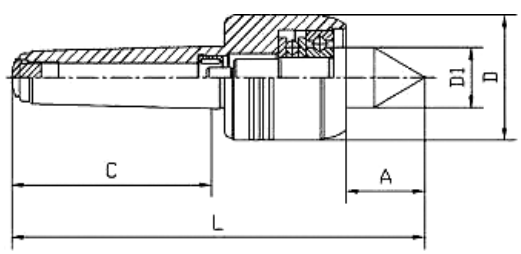
* Limited Supply

Item#	Morse Taper	(Inch) d	D	D1	L1	OAL	Accuracy Load	Radial Load (N)	Radial Load (lbf)	Max. RPM
3900-5001	1	.71	1.3	.475	.79	4.33	.0004	900	202.50	4000
3900-5002	2	.98	1.8	.700	1.02	5.71	.0004	1500	337.50	3500
3900-5003	3	1.10	2.1	.938	1.18	6.69	.0004	2000	450	3000
3900-5004	4	1.26	2.4	1.231	1.37	8.10	.0004	3200	720	2500
3900-5005	5	1.77	3.0	1.748	1.77	10.0	.0006	6300	1417.50	2000
3900-5006*	6	2.95	4.9	2.494	2.70	14.25	.0006	10000	2250	1200

MEDIUM DUTY LIVE CENTERS

- **High-quality hardened and ground steel construction** ensures strength, accuracy, and long life.
- **Dual precision bearings with thrust bearing** provide smooth operation under heavier loads.
- **Extended spindle design reduces vibration** for improved surface finish and stability.
- **Sealed bearing system keeps out coolant, chips, and dirt** to extend bearing life.
- **0.0002" concentricity with a 60° point** delivers accurate workpiece support for precision turning.

CONCENTRICITY WITHIN .0002"

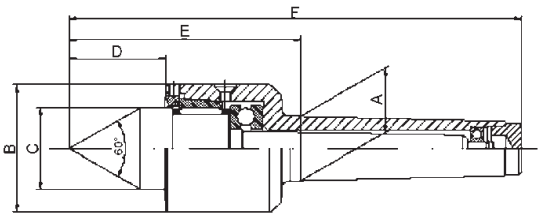




Item#	Morse Taper	(Inch) d1	D	A	C	L	Load Rate lbs.	Max. RPM
3900-5029	2	0.86	1.65	1.12	4.58	5.70	330	3500
3900-5030	3	0.90	1.86	1.12	5.73	6.85	660	3000
3900-5040	4	1.02	2.17	1.25	6.95	8.20	990	2500
3900-5041	5	1.38	2.70	1.90	8.60	10.50	1760	2000

SUPER DUTY HIGH PERFORMANCE LIVE CENTERS

- Combination of needle roller, thrust ball and deep groove ball bearings.
- Central spindle is made of hardened alloy steel and ground.
- Oil filler in the head for maintain the internal bearings to extend the life time.





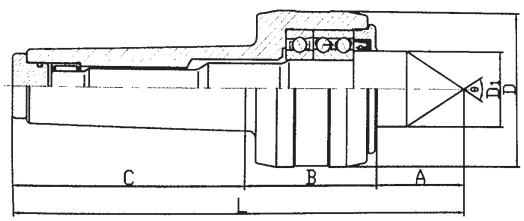
CONCENTRICITY WITHIN 0.0002"

Item#	Morse Taper	(mm) A	B	C	D	E	F	Load Rate lbs.	Max. RPM
3900-6074	2	17.78	36	22	26	68.5	126	660	5500
3900-6075	3	23.83	47	30	35	93.0	166	880	4500
3900-6076	4	31.27	55	35	40	104.0	197	2640	4000
3900-6078	5	44.40	70	45	51	134.5	246	4400	3000

ULTRA PRECISION HEAVY DUTY LIVE CENTERS

- Triple bearing design.
- Machined from one piece of forging, hardened and precisely ground.
- Accuracy: less or equal 0.0002" TIR.
- Ultra precision radial bearing reduces run out to minimum after much use.





CONCENTRICITY WITHIN 0.0002"

Item#	Morse Taper	(mm) A	B	C	D	D1	L	Load Rate lbs.	Max. RPM
3900-6082	2	**31**	48	69	46	20	147	770	6300
3900-6083	3	**39**	55	86	53	30	180	1200	5000
3900-6084	4	**42**	62	108	63	32	208	1760	3800
3900-6085	5	**49**	71	136	83	40	256	4400	3000

7 PC MULTI-SHAPE LIVE CENTER SETS

- Made of high grade tool steel hardened and ground.
- Precision needle bearings used for high accuracy with long life.
- Accuracy guaranteed to 0.0012~0.0039" at center head.
- Less heat is generated due to spring plate used.
- Complete with fitted case.





SET INCLUDES:
MORSE TAPER LIVE CENTER,
7 INTERCHANGEABLE TIPS, WRENCH

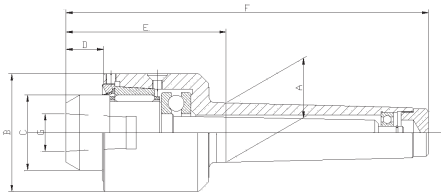
Item#	Morse Taper	Thrust Load lbs.	Country Origin
3906-5019	MT1	330	India
3906-5020	MT2	330	India
3900-5021	MT3	900	China
3900-5022	MT4	1200	China
3900-5023	MT5	1600	China

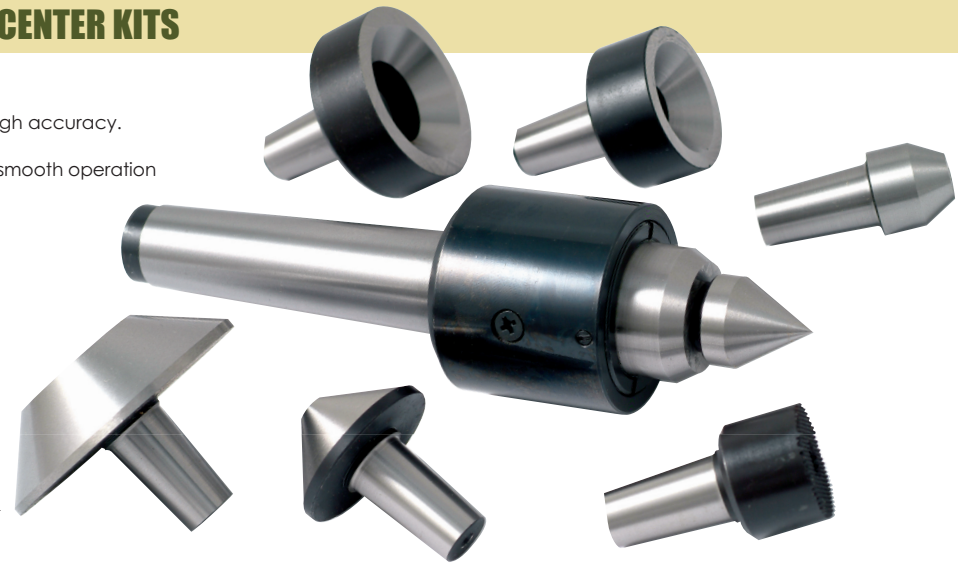
INTERCHANGEABLE POINT LIVE CENTER KITS

- Used for CNC machines.
- Fine adjustment for better grip.
- Made of hardened tool steel and ground to high accuracy.
- Two special designed high-quality bearings.
- Can be lubricated through a hole on head for smooth operation and longer bearings life.
- Heat treated to HRC 60.

KIT INCLUDES

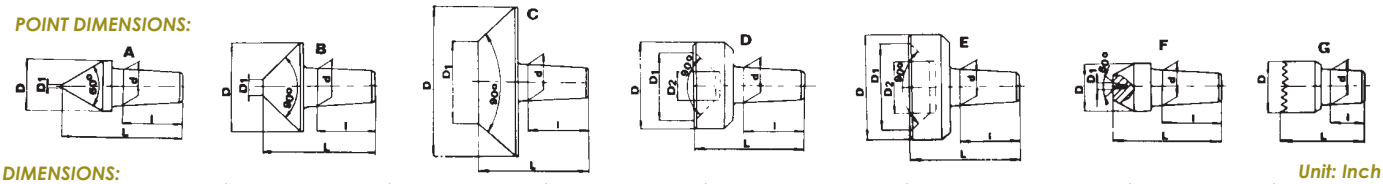
- Live Center Body
- 3 of Bull Nose Point
- 2 of Cone Shape Point
- 1 Serrated Point
- 1 Wrench Tool





Item#	Morse Taper	(mm) A	B	C	D	E	F	G	Load Rate kg	RPM	Accuracy
3900-5052	2	17.780	36	22	10.5	68.5	110	10	300	5500	0.01
3900-5053	3	23.825	47	30	15	93	145	15	400	4500	0.01
3900-5054	4	31.267	55	35	16	104	172	20	1200	4000	0.01
3900-5055	5	44.399	70	45	20	134.5	216	25	2000	3000	0.02

POINT DIMENSIONS:

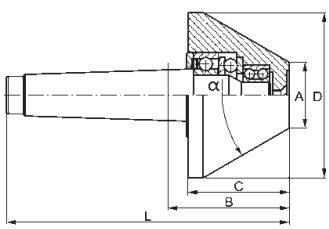


DIMENSIONS: ***Unit: Inch***

Morse Taper	d	l	A D	A D1	A L	B D	B D1	B L	C D	C D1	C L	D D	D D1	D D2	D L	E D	E D1	E D2	E L	F D	F D1	F L	G D	G L
2	.380	.630	.60	--	1.51	1.13	.201	1.38	1.73	0.80	1.40	1.12	0.77	.22	1.40	1.52	1.10	.55	1.39	.59	.06	1.38	.88	1.38
3	.590	.984	.79	.019	1.97	1.42	.236	1.77	2.48	1.30	1.77	1.42	1.10	.47	1.77	1.77	1.50	.87	1.77	.79	.10	1.77	.98	1.77
4	.784	1.181	.98	.019	2.36	1.77	.393	2.09	2.76	1.38	2.09	1.77	1.46	.67	2.09	2.48	2.09	1.18	2.09	.98	.20	2.09	1.26	2.09
5	.984	1.496	1.26	.039	2.87	2.20	.551	2.56	3.15	1.50	2.56	2.20	1.73	.79	2.56	2.78	2.36	1.42	2.56	1.26	.20	2.56	1.77	2.56

HEAVY DUTY BULL NOSE LIVE CENTERS





- Bull nose live centers are typically used in applications where the center hole is a large bore or when the application calls for the machining of pipe or other cylindrical components such as hydraulic cylinders. manufacturers of power generation components, and pipe manufacturers.
- Bull nose live centers are constructed with larger bearings to carry these heavy loads.
- The strength and alignment of the fully supported bull nose head provides longer center life.
- The rigidity of this live center helps dampen vibration and resist chatter.

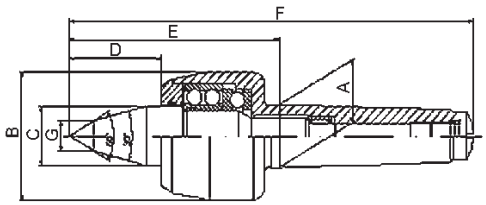
Item#	Morse Taper	(Inch) A	D	B	α	L	Load Rate Lbs.	Drawbar Threads
3900-5010	MT2	0.50	2.49	1.42	70°	5.37	440	3/8~16
3900-5011	MT3	0.75	3.10	1.66	70°	6.75	440	3/8~16
3900-5015	MT3	1.25	4.00	2.06	75°	7.15	880	3/8~16
3900-5008	MT3	1.25	5.00	2.40	75°	7.65	880	3/8~16
3900-5014	MT4	1.25	4.00	2.06	75°	8.11	1760	5/8~11
3900-5012	MT4	1.37	5.05	2.45	75°	7.60	1760	5/8~11
3900-4998	MT4	1.38	6.00	4.11	75°	8.15	1760	5/8~11
3900-4999	MT4	1.57	8.00	4.82	75°	8.86	3520	5/8~11
3900-5016	MT5	1.26	4.75	2.40	75°	9.09	3000	3/4~16
3900-5013	MT5	1.38	6.00	3.20	75°	8.75	3000	3/4~16
3900-5017	MT5	1.57	8.00	4.84	75°	9.92	3000	3/4~16
3900-5018	MT5	2.24	10.00	5.96	75°	10.00	2640	3/4~16
3900-5019	MT6	1.57	8.00	4.25	75°	12.60	3500	1~8

PRECISION EXTENDED POINT LIVE CENTERS

- Extended point design provides improved access to hard-to-reach workpieces and supports machining close to shoulders, reducing setup limitations and improving versatility.
- Precision ball bearing construction ensures smooth, accurate rotation for reduced runout, improved surface finishes, and longer tool life during turning operations.
- Designed for medium- and high-speed lathe applications, allowing stable support of rotating workpieces while maintaining machining accuracy.
- Hardened alloy steel body (58-62 RC) delivers excellent wear resistance and long service life in demanding machine shop environments.
- Precision-ground 60° point provides accurate workpiece alignment and concentricity for turning, grinding, and inspection operations.
- Dustproof front seal helps prevent contamination from coolant, chips, and debris, extending bearing life and reducing maintenance.
- Heavy-duty construction supports high radial loads while maintaining rigidity for improved machining performance and repeatability.
- Ideal for CNC lathes, engine lathes, toolrooms, and production machining where precise workpiece support and extended reach are required.

≤ 0.0002" TIR



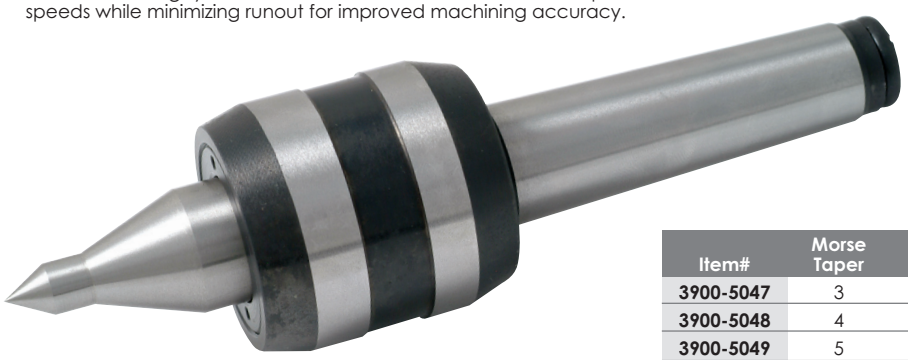


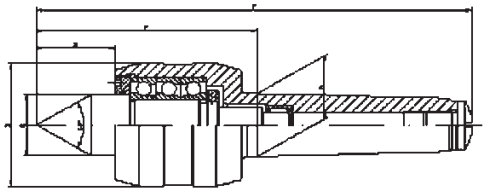
Item#	Morse Taper	Nose Length	OAL	Max. RPM	Load Rate (Lbs)
3900-5024	2	1.16"	6.14"	5000	260
3900-5025	3	1.25"	7.25"	4000	660
3900-5026	4	1.44"	8.45"	3500	1100
3900-5027	5	1.78"	10.35"	2500	2200

HIGH SPEED EXTENDED POINT CNC LIVE CENTERS

- Extended nose design provides additional clearance and improved access for supporting parts with deep recesses, small diameters, or hard-to-reach machining areas.
- Designed for high-speed CNC lathe applications, delivering stable and accurate workpiece support for precision turning operations.
- Precision-ground 60° point improves concentricity and reduce vibration, helping produce better surface finishes and tighter tolerances.
- Hardened tool steel construction offers excellent wear resistance and long service life in demanding production environments.
- Precision bearing system ensures smooth rotation at elevated spindle speeds while minimizing runout for improved machining accuracy.
- Fully protected bearing assembly helps prevent coolant, chips, dirt, and swarf from entering the bearings, extending service life and reliability.
- Heat-treated spindle (HRC 60) increases durability and maintains accuracy under continuous machining loads.
- Ideal for CNC turning centers, production machining, shaft work, and high-speed applications requiring compact point support and extended reach.

≤ 0.0002" TIR

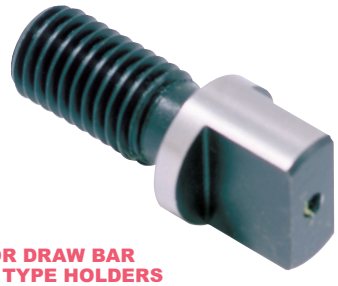




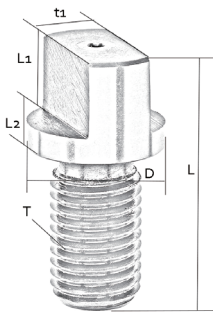
Item#	Morse Taper	Max. RPM	Load Rate Lbs.	Nose Length	OAL
3900-5047	3	6000	550	1.75"	7.3"
3900-5048	4	5000	880	2.00"	9.0"
3900-5049	5	4000	1760	2.50"	10.8"

MORSE TAPER DRAWBAR TANG ADAPTERS

- Converts Morse Taper tang-type holders from threaded drawbar use.
- Precision machined from hardened tool steel for wear resistance.
- Fits standard MT1 through MT5 tapers in inch and metric threads.



TANG FOR DRAW BAR THREAD TYPE HOLDERS



* Limited Supply

INCH SIZES

Item#	Morse Taper	Thread	Dimensions (mm) D	L	L1	L2
3906-0795	MT2	3/8"-16	12	30	7	4
3906-0796	MT3	3/8"-16	17	40	12	4
3906-0797	MT4	5/8"-11	24	46	13	5

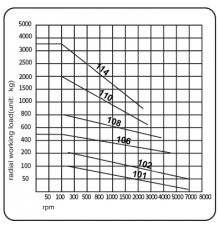
METRIC SIZES

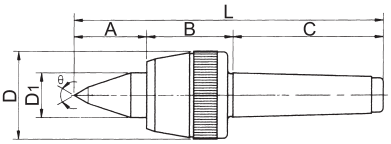
Item#	Morse Taper	Thread	Dimension (mm) D	L	L1	L2
3900-0789*	MT1	M6x1.00	9.5	27	7.5	3
3900-0790	MT2	M10x1.50	12	30	7	4
3900-0791	MT3	M12x1.75	17	40	12	4
3900-0792	MT4	M16x2.00	24	46	13	5
3900-0793*	MT5	M24x3.00	34	47	14	5

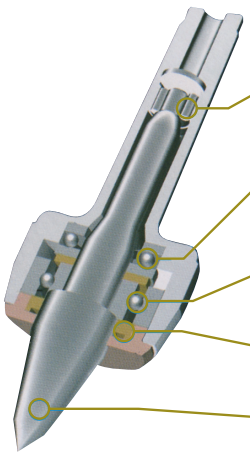
HARLINGEN® HIGH PRECISION CNC LIVE CENTERS - EXTENDED POINT

- Especially suited for cramped work areas between center point and workpiece.
- High concentricity and stability provides high accuracy bearing system.
- Tip has 60° included angle.
- Body is hardened for extra strength and extra rigidity.
- Lifte time lubrication for minimum required maintenance.
- Maximum concentricity deviation for ultra precision
- Point is made of high quality alloy steel and heat treaed to hardness HRC62.









NEEDLE BEARING
Coarse clearance fit design in supporting structure counteracts heat preventing the deformation during use.

THRUST BALL BEARING
The bearing has a hardened frame providing good rigidity and accuracy strengthening the axial load.

BALL BEARING
The front support bearing provides high speed rotating and accuracy.

SEAL RING
Prevents coolant and other scraps from settling in extending centers life.

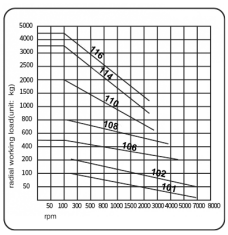
CENTER SPINDLE
made of high quality alloy steel, hardened to HRC62, which allows good rigidity and wearability.

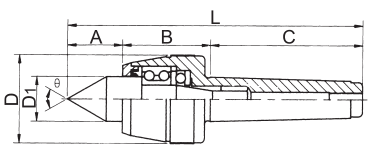
Item#	Morse Taper	T.I.R.	Dimensions (Inch) A	B	C	D	D1	OAL (L)	Load Rate lbs.	Max. RPM	Weight lbs
9741-0232	2	.0002"	1.34	1.61	2.52	1.77	0.79	5.47	200	7000	1.50
9741-0233	3	.0002"	1.85	1.91	3.19	2.36	0.98	6.95	360	5000	3.25
9741-0234	4	.0002"	2.09	2.42	4.04	2.76	1.26	8.54	800	3800	6.20
9741-0235	5	.0004"	2.56	3.09	5.10	3.54	1.57	10.75	1200	3000	12.50

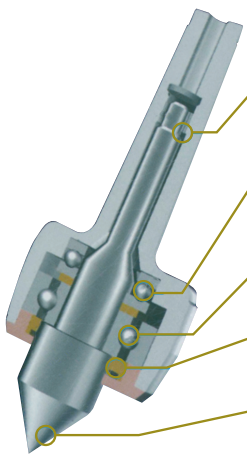
HARLINGEN® HIGH PRECISION CNC LIVE CENTERS

- High concentricity and stability thanks to high accuracy bearing system.
- Tip has 60° included angle.
- Body is hardened for extra strength and extra rigidity
- Lifte time lubrication for minimum required maintenance.
- Maximum concentricity deviation for ultra precision
- Point is made of high quality alloy steel, heat treaed to hardness HRC62.









NEEDLE BEARING
Coarse clearance fit design in supporting structure counteracts heat preventing the deformation during use.

THRUST BALL BEARING
The bearing has a hardened frame providing good rigidity and accuracy strengthening the axial load.

BALL BEARING
The front support bearing provides high speed rotating and accuracy.

SEAL RING
Prevents coolant and other scraps from settling in extending centers life.

CENTER SPINDLE
made of high quality alloy steel, hardened to HRC62, which allows good rigidity and wearability.

Item#	Morse Taper	T.I.R	Dimensions (Inch) A	B	C	D	D1	OAL (L)	Load Rate lbs.	Max. RPM	Weight lbs
9741-3232	2	.0002"	0.94	1.61	2.52	1.77	0.79	5.08	165	7000	1.10
9741-3233	3	.0002"	1.22	1.91	3.19	2.36	0.98	6.32	500	5000	2.86
9741-3234	4	.0002"	1.61	2.42	4.04	2.76	1.26	8.07	1000	3800	5.06
9741-3235	5	.0004"	1.99	3.09	5.10	3.54	1.57	10.18	1200	3000	10.34

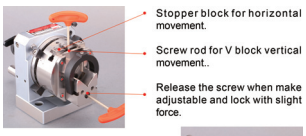
Pro-Series 2-WAY ULTRA PRECISION PUNCH FORMER

- FINE-TUNING function punch former has stronger compact structure for longer durability.
- Vertical & horizontal adjustment function is particularly suitable for oval punch grinding.
- V-block clamping can accurately stabilize workpiece and vertical fine-tuning can make setting center easy
- High precsion double bearings help achieve higher accuracy, rigidity and stability
- Stopper design in position slot allows for easy & precisely stabilization for polygonal punches
- Dust-proof and water resistance

3800-5007

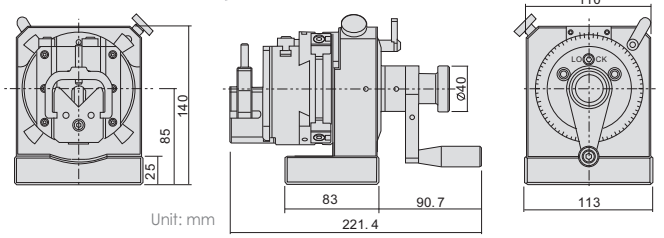
MADE IN TAIWAN

Punch Forming Applications





HHIP PRO-SERIES



SPECIFICATIONS	
Center Height	3.35±0.02", 85±0.5mm
Clamping Dia. Range of V-block	0.12~1.18" / 3~30mm
Travel of V-block	1.77" / 45mm
Slide Plate Horizontal Movement	± 0.71" / 18mm
Indexer Number of Tooth & Accuracy	24, 15 deg. ±10"
Clamping Accuracy (50mm)	0.0002"/ 0.005mm

ER COLLET PUNCH FORMER

- Clamps workpiece quickly and steadily when processing.
- Clamping diameter: .0787~.787".
- Utilized with ER32 spring collet.

3800-6808



ER32



INCLUDES: 7PC ER-32 COLLET SET: 1/8, 1/4, 5/16, 3/8, 1/2, 5/8, 3/4

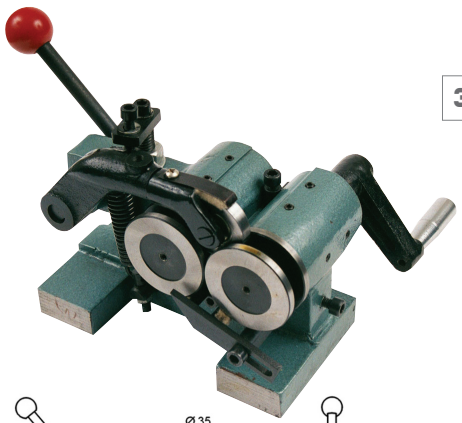
Pro-Series PRECISION PUNCH GRINDER

- Can be used on the surface of grinding machine for round punches (0.12" ~ 1.18" dia.).
- Punches can be ground by putting among three rollers of punch grinder without checking the center.
- Accuracy of Roller (Turning Right or Left): 0.0002"
- Accuracy of Point A (Turning): 0.000197"
- Accuracy of Point B (Turing): 0.00031"

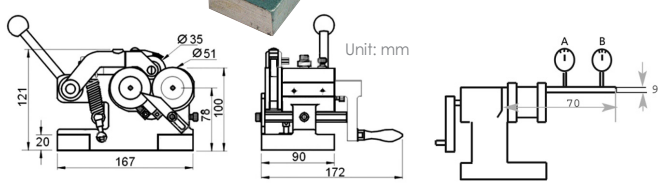
HHIP PRO-SERIES

3600-0037

MADE IN TAIWAN



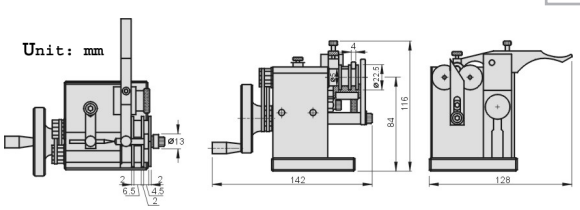
0.12~1.18" DIA. CAPACITY



Pro-Series PRECISION SMALL PUNCH GRINDER

- Punch grinder can be placed on the bed of surface grinder for automatic precision cylindrical grinding.
- Punch grinder rollers are used to adjust the workpiece before grinding.
- Workpiece is turned with a crank handle.

SPECIFICATIONS	
Accuracy of the rollers:	within 0.0002"
Diameter of punches can be ground:	0.020~0.236"/0.5~6.0mm
Net Weight:	6 lbs.

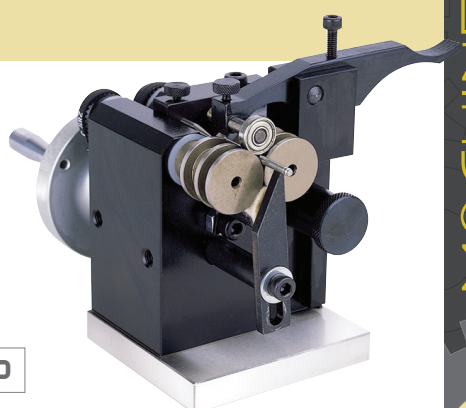


0.020~0.236" DIA. CAPACITY

HHIP PRO-SERIES

MADE IN TAIWAN

3800-5150

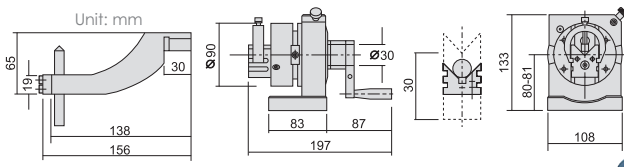


MACHINE TOOL ACCESSORIES

Pro-Series PUNCH FORMER & RADIUS DRESSER

- For concave and convex radius.
- Hardened tool steel construction.

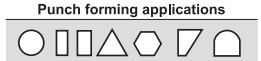
3600-0371



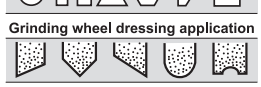
SPECIFICATIONS	
Max. dia. workpiece	1-1/4"
V-block	1-3/16"
Tangential travel (either side of center)	.25/32"
V-block adjusting system	rack & pinion
Center height	3-1/2"
Indexing div	24 every 15L ±10 seconds
Roundness	0.0001"
Parallelism	within .0001" in 4"
Squareness	within .0002" in 4"
Graduation	360°
Max. Convex/Concave	1.89/3.94"
Min. Convex/Concave	0.012

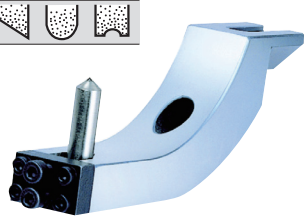
REPLACEMENT DIAMOND ON PAGE 348

Punch forming applications

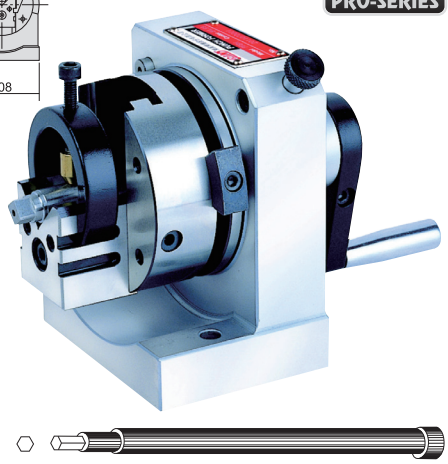


Grinding wheel dressing application





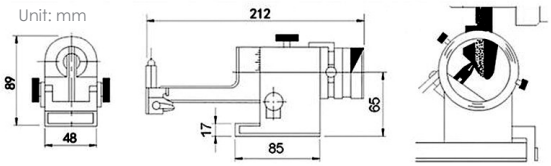
MADE IN TAIWAN



HHIP PRO-SERIES

Pro-Series VISI - DRESS RADIUS AND ANGLE DRESSER

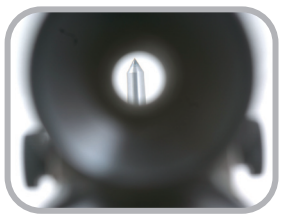
- 1° Vernier markings for dressing angles.
- Magnification through hole in the spindle, makes it possible to see how to dress the form on the grinding wheel.
- Dresser is tested and guaranteed for accuracy.



3900-0060

HHIP PRO-SERIES

SPECIFICATIONS	
Overall Height	4"
Length	8-1/4"
Swing Arm	180°
Max. Size Grinding Wheel	8"
Max. Outside Radius (on wheel approx..)	5/8"
Max. Inside Radius (on wheel approx..)	1"
Spindle	1" O.D.
Weight	11 lbs



REPLACEMENT DIAMOND ON PAGE 348



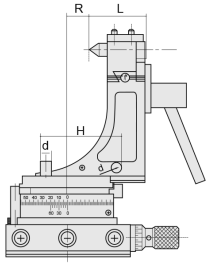
MADE IN TAIWAN

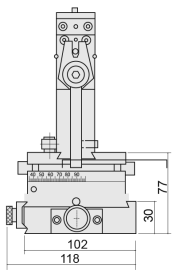
Pro-Series UNIVERSAL WHEEL DRESSER

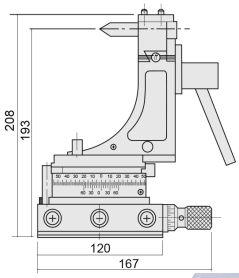
GRINDING WHEEL APPLICATIONS



- Adaptable on surface grinding machine and universal tool grinder for dressing grinding wheels into various shapes.
- Extremely accurate.







HOW TO CALCULATE

H = L = "0" R
H - Distance between two locating pins(as picture snows)
R - Radius of arc surface to be dressed
L - Distance from tip of diamond to base plate

To dress convex arc surface: H=L+R
To dress concave arc surface: H=L-R

MADE IN TAIWAN

HHIP PRO-SERIES

3800-5210

SPECIFICATIONS	
Center Height:	7.68"/195mm
Pin Diameter:	0.394"/10mm
Max. Swing Distance of Diamond Dresser:	±0.55"/14mm
Max. Wheel Diameter:	7.87"/200mm
Reading Accuracy of Turret Index:	5'
Max. Translation of Feed:	0.98"/25mm
Feed Graduations of Handle Scale:	0.0003"/0.01mm

REPLACEMENT DIAMOND ON PAGE 348

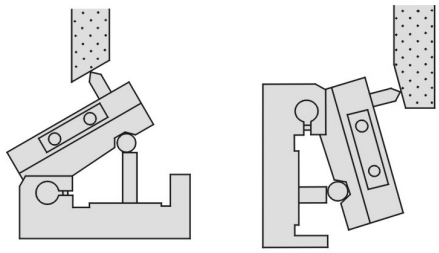
Pro-Series PRECISION SINE DRESSER

- Combination sine system and crossfeed for dressing grinding wheels at precise angles.

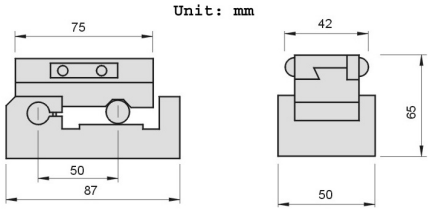
HHIP PRO-SERIES

3800-5240
Weight: 3.5 lbs.





Unit: mm



SPECIFICATIONS	
Range of Angles:	0~60°
Distance of Rolls Center to Center:	2"
Accuracy:	within 0.0002"
Net Weight:	3.5 lbs.

USE 3/8" DIAMOND DRESSER (not included)

REPLACEMENT DIAMOND ON PAGE 348

Pro-Series RADIUS AND ANGLE DRESSER

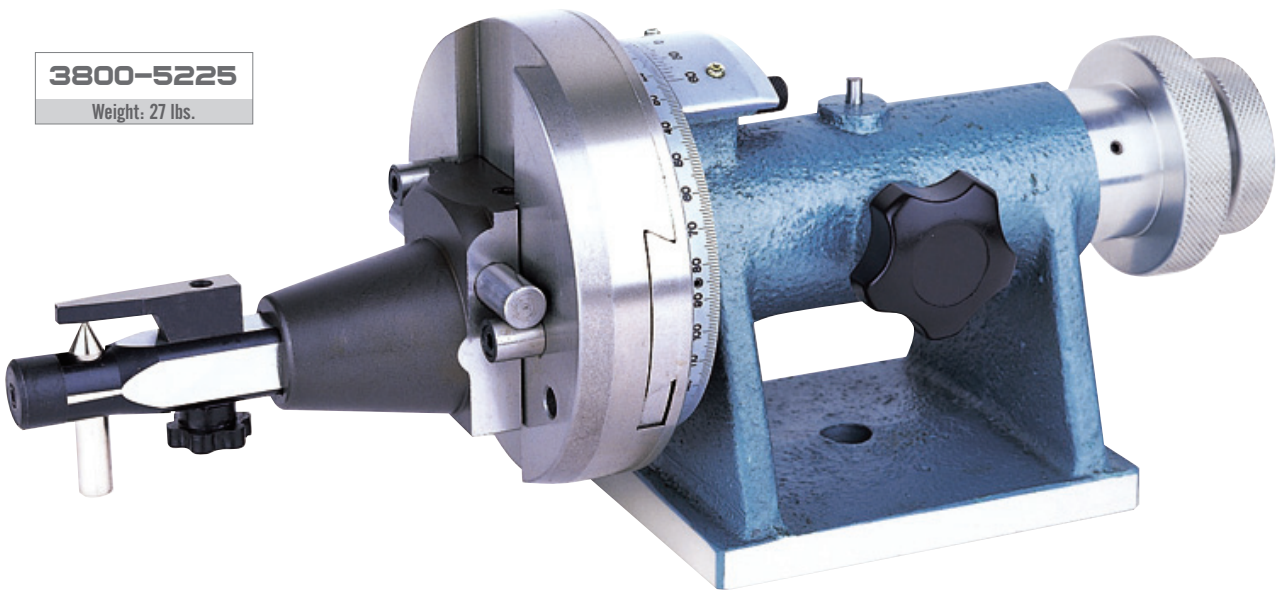
- Perfect for outside, inside diameter and surface grinding operations.
- Extreme accuracy and versatility is assured with dual purpose knob for radii and angular movements.
- Unique design features a fast, easy and accurate radius setting with included setting gauge.
- Stop feature available for concave and convex radii.
- Lapped moving parts and adjustable gibs take up future wear.

MADE IN TAIWAN

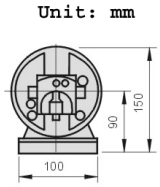
GRINDING WHEEL APPLICATIONS

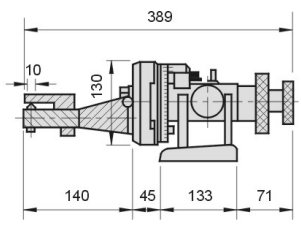


3800-5225
Weight: 27 lbs.



Unit: mm





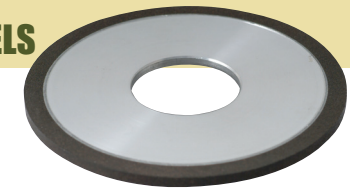
SPECIFICATIONS	
Max. Diameter of Wheel:	12"
Convex Radii:	0~2.36"
Concave Radii:	0~5.90"
Tangent Travel Either Side of Center:	1.95"
Center Line of Dresser:	3.40"
Resolution of Vernier Reading:	6'
Overall Length:	15.30"
Overall Height:	5.90"
Net Weight (lbs.):	27

REPLACEMENT DIAMOND ON PAGE 348

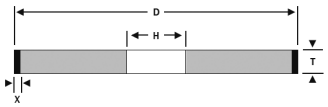
MAX. VARIATION	
Face Plate to Dresser Arm Squareness (per 2"):	0.0005"
Face Plate to Base Squareness:	0.0006"
Center Runout of Dovetail Groove to Wheel Center:	0.0006"

DIAMOND & CBN WHEELS

D1A1 STRAIGHT STYLE DIAMOND & CBN WHEELS



- 100% concentration for fast, consistent grinding.
- Straight wheel design improves precision and control.
- Diamond & CBN abrasives handle carbide and hardened steel.
- 1-1/4" (H) arbor fits many grinding machines.



STYLE D1A1

Wheel Diameter D	Wheel Thickness T	Diamond Depth X	Diamond(150 Grit) Item#	CBN(120 Grit) Item#
4"	1/16"	1/8"	2400-4062	2400-4063
4"	1/8"	1/8"	2400-4125	2400-4126*
4"	1/4"	1/8"	2400-4250	2400-4251
6"	1/16"	1/8"	2400-6062	2400-6063
6"	1/8"	1/8"	2400-6125	2400-6126
6"	1/4"	1/8"	2400-6250	---------
6"	3/8"	1/8"	2400-6375	2400-6376
6"	1/2"	1/8"	2400-6500	2400-6501
7"	1/4"	1/8"	2400-7250	2400-7251
7"	3/8"	1/8"	2400-7375	---------
7"	1/2"	1/8"	2400-7500	---------

* Limited Supply

D1A1R DIAMOND CUT-OFF WHEELS

- 150 grit diamond abrasive provides fast, precise cutting performance.
- 1-1/4" (H) arbor fits many grinding machines.
- Thin cut-off design reduces material waste and heat buildup.
- Ideal for cutting carbide, ceramics, and hardened materials.

STYLE D1A1R

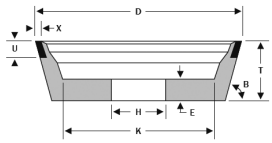




Wheel Diameter D	Thickness T	Diamond (150 Grit) Item#
4"	.035"	2401-4035
6"	.035"	2401-6035
6"	.045"	2401-6045
8"	.045"	2401-8045

D11V9 FLARING CUP DIAMOND & CBN WHEELS

- 100% concentration.
- Arbor Hole: 1-1/4" (H)
- For tool and cutter applications including sharpening of end mills, reamers, milling cutters and broaches.

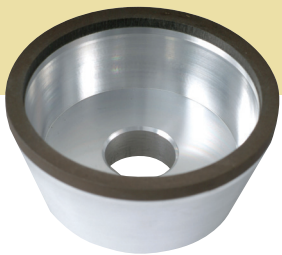


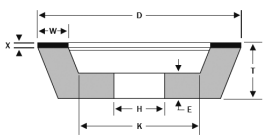


STYLE D11V9

Wheel Diameter D	Wheel Thickness T	Diamond Depth X	Back Thick E	B	Diamond (150 Grit) Item#	CBN (120 Grit) Item#
3-3/4"	1-1/2	1/8	3/8	70°	2404-4125	2404-4126
5"	1-3/4	1/16	1/2	70°	2404-5062	2404-5063
5"	1-3/4	1/8	1/2	70°	2404-5125	2404-5126

D11A2 FLARING CUP DIAMOND & CBN WHEELS





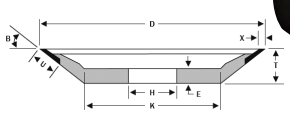
- Flaring cup design provides smooth, controlled surface grinding.
- 100% concentration abrasive improves wheel life and cutting performance.
- Diamond & CBN options handle carbide and hardened steel materials.
- 1-1/4" (H) arbor hole fits many grinding machines.

STYLE D11A2

Wheel Diameter D	Wheel Thickness T	Diamond Depth X	Rim Width W	Back Thick E	Diamond (150 Grit) Item#	CBN (120 Grit) Item#
3"	7/8	1/8	3/8	3/8	2405-3875	2405-3876
4"	1-1/4	1/8	1/2	1/2	2405-4250	2405-4251
5"	1-3/4	1/8	3/8	1/2	2405-5275	2405-5276

D12V9 DIAMOND DISH WHEELS

- Dish wheel design improves grinding access on angles and contours.
- 150 grit diamond abrasive provides fast, precise material removal.
- 75% concentration delivers reliable performance and wheel life.
- 1-1/4" (H) arbor hole fits many grinding machines.





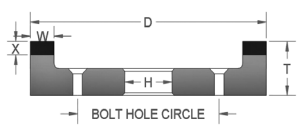
STYLE D12V9

Wheel Diameter D	Wheel Thickness T	Diamond Depth X	Insert Length U	Back Thick E	B	Item#
4"	1/2	1/8	1/4	1/4	75°	2402-4125
6"	3/4	1/8	7/16	7/16	75°	2402-6125

6A2C DIAMOND & CBN PLAIN CUT WHEELS

- With countersunk bolt holes
- Mount on popular 6" carbide grinders
- Use for off-hand grinding on brazed tipped carbide single point turning tools.
- Back Thickness: 7/16"
- Arbor Hole : 1-1/4"(H)

STYLE 6A2C





75% CONCENTRATION

Wheel Diameter D	Wheel Thickness T	Diamond Width W	Diamond Depth X	Diamond (150 Grit) Item#	CBN (120 Grit) Item#
6"	3/4	1/2	1/16	2403-6502	----------
6"	3/4	3/4	1/16	2403-6752	----------
6"	3/4	1	1/16	----------	2403-6999*

100% CONCENTRATION

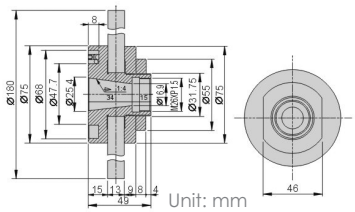
Wheel Diameter D	Wheel Thickness T	Diamond Width W	Diamond Depth X	Diamond (150 Grit) Item#
6"	3/4	1	1/16	2403-6750

* Limited Supply

F350 GRINDING WHEEL ADAPTER

- Hardened and ground and heat-treated construction improves accuracy and long service life.
- Balanced adjustable wheel design reduces vibration for smoother grinding finishes.
- Fits 1-1/4" I.D. wheels for compatibility with common grinding wheels.
- 1° taper and precision fit provide secure wheel mounting and concentric rotation.
- Wheel Width Capacity: 1/4-3/4".
- 1" diameter at larger end of taper hole. 1-1/4"-16 thread (left hand).





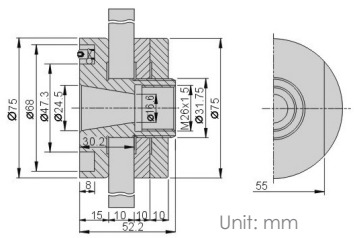
MADE IN TAIWAN

2420-0350

F520 GRINDING WHEEL ADAPTER/FLANGE

- Designed for OKAMOTO 52DX cylindrical grinders for direct machine compatibility.
- Hardened and ground surfaces improve precision and durability during grinding operations.
- Flange-style design ensures stable wheel support and reduced runout.
- Fits 1-1/4" I.D. wheels for versatile wheel selection.
- Made in Taiwan for reliable quality and long-term performance.





MADE IN TAIWAN

2420-0520

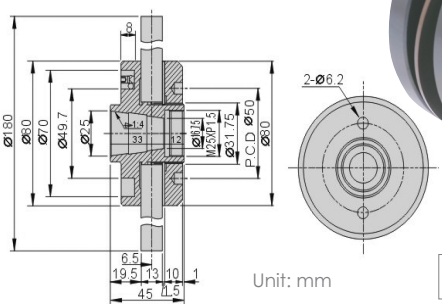
F450 GRINDING WHEEL ADAPTER

- Designed for U.S. standard cylindrical grinding machines for broad compatibility.
- Hardened and ground construction delivers precise wheel alignment and durability.
- Adjustable wheel width capacity handles multiple grinding wheel sizes.
- Fits 1-1/4" I.D. grinding wheels for flexible applications. 1" diameter at the large end of the taper hole.
- Precision taper fit improves wheel holding strength and grinding accuracy.





MADE IN TAIWAN

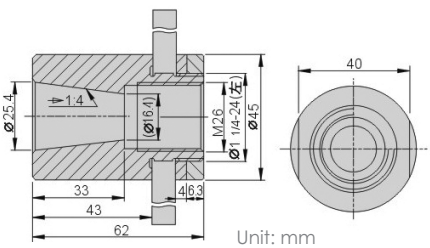


2420-0352

F300 GRINDING WHEEL ADAPTER/FLANGE

- Designed for standard 614 and 618 surface grinding machines.
- Hardened and ground finish improves accuracy and wear resistance.
- Flange-style adapter provides stable wheel mounting and smooth operation.
- Fits 1-1/4" I.D. wheels for use with common grinding wheels.
- Made in Taiwan for dependable quality and performance.





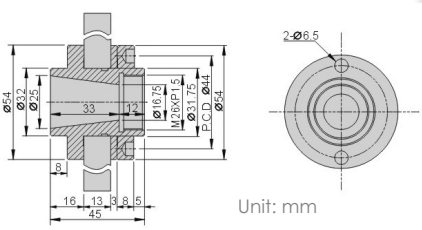
MADE IN TAIWAN

2420-0300

F320 GRINDING WHEEL ADAPTER/FLANGE

- Designed for U.S. standard cylindrical grinding machines for easy installation.
- Similar to Sopko-style 1" adapters for convenient replacement compatibility.
- Hardened and ground construction improves precision and durability.
- Fits 1-1/4" I.D. wheels for versatile grinding applications.
- Stable flange design reduces vibration for improved surface finishes.





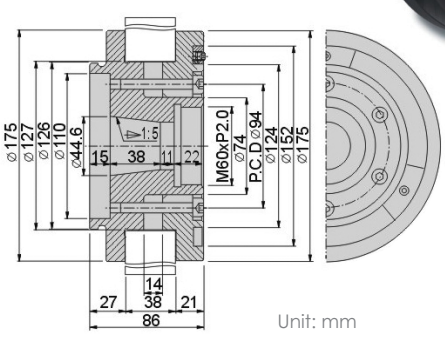
MADE IN TAIWAN

2420-0320

FC630 GRINDING WHEEL ADAPTER/FLANGE

- Designed for OKAMOTO ACC-63DX and TATUNG PSD-64 grinders.
- Hardened and ground body ensures precision wheel mounting and durability.
- Heavy-duty flange design improves wheel stability during grinding.
- Precision-machined fit reduces runout for smoother finishes.
- Made in Taiwan for reliable performance and consistent quality.





MADE IN TAIWAN

2420-0463

MACHINE TOOL ACCESSORIES

DIAMOND DRESSERS

VM CONVEX RADIUS DIAMOND DRESSERS

- Convex radius design produces accurate radiused grinding wheel profiles.
- Special octahedron diamond improves fine finishing and wheel dressing performance.
- Precision-point diamond delivers clean, consistent wheel shaping.
- 3/8" x 2" shank fits many common dressing tool holders.
- Made in the USA for dependable quality and long tool life.

3/8 X 2" SHANK

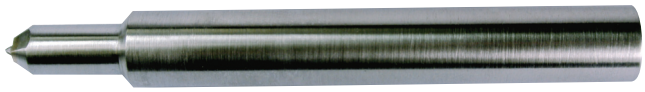
MADE IN USA



GRADE AAA 90°
3900-0097

CONCAVE RADIUS DIAMOND DRESSERS

- Concave radius design creates accurate internal wheel profiles and forms.
- Precision diamond point improves wheel conditioning and grinding consistency.
- Ideal for contour grinding, form grinding, and radius applications.
- 3/8" x 2" shank fits standard dressing setups and holders.
- Made in the USA for reliable performance and durability.



MADE IN USA

3/8 X 2" SHANK
GN STYLE

Item#	Radius
3900-0086	.010"
3900-0088	.020"

CONVEX RADIUS DIAMOND DRESSERS

- Concave radius design creates precise internal wheel profiles and forms.
- Precision diamond tips improve wheel accuracy and surface finish quality.
- Ideal for contour grinding, radius grinding, and form dressing applications.
- 3/8" x 2" shank fits standard dressing tool holders and setups.
- Made in the USA for dependable quality and long service life.



MADE IN USA

3/8 X 2" SHANK
OCTO STYLE

Item#	Radius
3900-0077	.125-.250"
3900-0078	.250" & Up

HAND HELD DIAMOND DRESSER

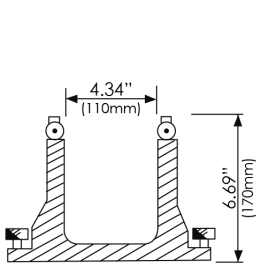
- Hand-held design allows quick, easy grinding wheel dressing.
- Diamond tip restores wheel shape for smoother grinding performance.
- Plastic handle improves grip and operator comfort during use.
- Chrome-plated shank resists wear and corrosion for longer service life.
- Ideal for bench grinders, tool grinders, and general wheel maintenance.

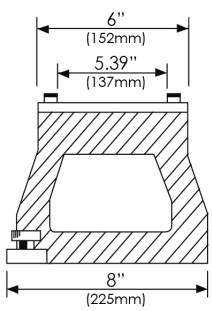


Item#	Diamond Size	Shank Dia.	Overall Length
3900-0063	1/4 Carat	7/16"	8"

VERTEX® PRECISION WHEEL BALANCING STAND - 100 LB. CAPACITY

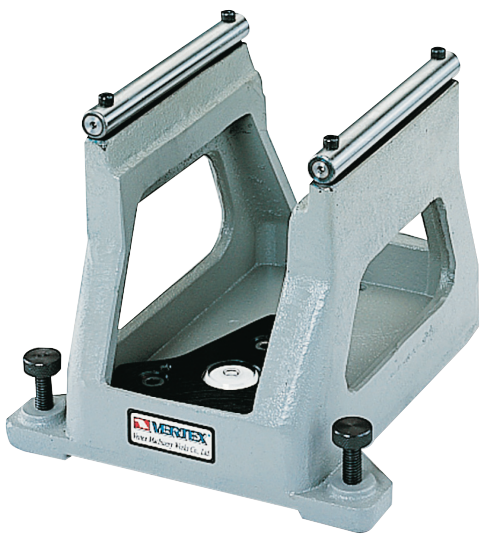
- **Made in Taiwan** – High Quality & Exceptional Value: Precision manufacturing delivers consistent accuracy and durability comparable to premium brands at a more competitive price point.
- **Precision Leveling Design** – Built to detect and correct minute imbalances in rotating components.
- **Adjustable Leveling Base** – Fine horizontal adjustment screws allow quick and accurate setup.
- **Heavy-Duty Cast Construction** – Rigid frame ensures stability and consistent measurement results.
- **Low-Friction Roller Supports** – Enables smooth rotation for accurate balance checking.
- **Wide Capacity Range** – Accommodates different wheel sizes (up to 8"/200mm) and workpiece diameters.
- Used to check and balance grinding wheels, shafts, and other rotating components to reduce vibration and improve machining accuracy.





MADE IN TAIWAN

2420-0020
Weight: 20 Lbs.



SINGLE-POINT DIAMOIND DRESSERS - 3" & 6" SHANKS

- **HHIP Single Point Diamond Dressers are used to reshape grinding wheels.**
- Specifically designed with a diamond-tipped point for shaping, sharpening and cleaning grinding wheels by utilizing the hardness and abrasive nature of the diamond.
- The hard single-point diamond engages with the grinding wheel's abrasive surface.
- Effectively removes unwanted material, reshaping and conditioning the wheel for optimal performance.
- Guarantees precise dressing, achieving accurate profiles on grinding wheels.
- Enhances overall efficiency and longevity of grinding wheels in industrial applications.
- **Extended life:** Larger diamonds may have a longer lifespan due to reduced wear in each use.

Choose a 3" dresser for precision and smaller applications and a 6" dresser for efficiency, faster material removal and larger workpieces. The decision should align with the specific needs of the grinding operation.





3" SHANK

Carat (Approx.)	3/8 x 3" Item#	7/16 x 3" Item#	1/2 x 3" Item#
1/4	3903-0032	3903-0042	3903-0092
1/3	3903-0033	3903-0043	3903-0093
1/2	3903-0034	3903-0044	3903-0094
3/4	3903-0035	3903-0045	3903-0095
1	3903-0039	3903-0050	3903-0099
1-1/2	3903-0040	3903-0051	3903-0100
2	3903-0041	3903-0052	3903-0101





6" SHANK

Carat (Approx.)	3/8 x 6" Item#	7/16 x 6" Item#	1/2 x 6" Item#
1/4	3903-0200	3903-0210	3903-0220
1/3	3903-0202	3903-0212	3903-0222
1/2	3903-0204	3903-0214	3903-0224
3/4	3903-0206	3903-0216	3903-0226
1	3903-0207	3903-0217	3903-0227
1-1/2	3903-0208	3903-0218	3903-0228
2	3903-0209	3903-0219	3903-0229

SINGLE POINT DIAMOND DRESSERS - 2" Shank

- Premium single-point diamond tip delivers precise wheel truing for improved grinding accuracy and surface finish.
- Precision-ground 2" steel shanks provide added rigidity and reduced vibration for smooth, controlled dressing operations.
- Available in both 3/8" and 7/16" shank sizes to fit a wide range of dresser holders and grinding setups.
- Ideal for resurfacing, shaping, sharpening, and conditioning grinding wheels in toolrooms and production environments.
- Multiple carat sizes are available for light finishing work through heavier-duty wheel dressing applications.



Carat (Approx.)	3/8x2" Item#	7/16x2" Item#
1/4	3903-0071	3903-0081
1/3	3903-0072	3903-0082
1/2	3903-0073	3903-0083
3/4	3903-0074	3903-0084
1	3903-0078	3903-0088

SINGLE POINT DIAMOND DRESSERS - 3" Shank

- Premium single-point diamond tip restores grinding wheels quickly for improved accuracy and surface finish.
- 3" shank design provides added reach and better access for larger grinding setups and hard-to-reach applications.
- Precision-ground steel body delivers excellent rigidity and reduced vibration for smooth, controlled dressing performance.
- Ideal for truing, shaping, sharpening, and conditioning grinding wheels on surface, cylindrical, and bench grinders.
- Available in both 3/8" and 7/16" shank sizes to fit a wide range of dresser holders and grinding setups.
- Available in multiple carat sizes to handle both fine finishing work and heavier-duty wheel dressing applications.



Carat (Approx.)	3/8x3" Item#	7/16x3" Item#
1/4	3900-0072	3900-0082
1/3	3900-0073	3900-0083
1/2	3900-0074	3900-0084
3/4	3900-0075	----------
1	3900-0079	3900-0090

Pro-Series MOTORIZED BRAKE TRUING DRESSER

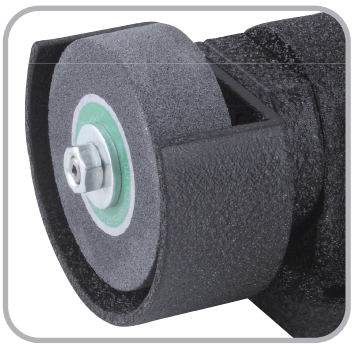
How To:

- Mount the device with it's wheel spindle parallel to the spindle of the straight wheel being trued. For cylinder or cup wheels, mount perpendicular to their spindle. The correct wheel specification is determined by the grit size and bond type of the diamond wheel being trued.
- Bring the diamond wheel and the truing wheel together until they almost touch. Turn on the diamond wheel (at normal grinding speed). At the point of contact, bring the two wheels together until they just touch. Be sure that the truing wheel is turning in the same direction as the diamond wheel. Switch on the Power Dresser.
- The Power Dresser device is always used dry. Traverse the Power Dresser back and forth at 30 to 60 inches per minute. Downfeed .0005" to .001" at the end of each traverse. The truing wheel should run off the diamond wheel after each traverse to avoid chipping the edges of the diamond wheel. During the last few passes, reduce the downfeed to .00025" per pass.
- When using the Power Dresser truing device, the only movement between the two wheels is traverse. Do not operate the work table on a rotary or reciprocating table traverse surface grinder.
- When the truing operation has been completed, there will be a smooth, continuous contact and firing throughout each traverse stroke. Visual inspection of the diamond section will show an even appearance around the wheel. A reading with a dial indicator will show no runout.

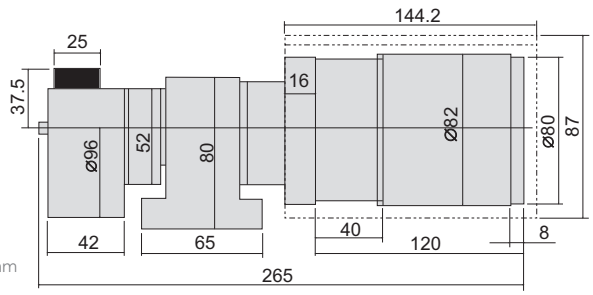
- **THIS MOTORIZED POWER DRESSER IS DESIGNED FOR THE USE OF TRUING THE PERIPHERY AND THE FACE OF LARGER DIAMOND, CBN AND SUPERABRASIVE WHEELS. IT CAN BE MOUNTED ON ALMOST ANY GRINDING MACHINE USING EITHER A MAGNETIC CHUCK TABLE OR MOUNTED WITH SCREWS TO A FIXTURING DEVICE. CONSTRUCTED OF CAST IRON AND STEEL, IT IS VERY RUGGED AND DURABLE.**
- For exceptionally good finishes,
- THIS DEVICE OPERATES AT 120 RPM
- Power Supply: 110V/60Hz/ I Phase
- Dimensions: 105" x 5"x 3.5"
- Net Weight: 13 lbs

MADE IN TAIWAN

3800-5251







Unit: mm

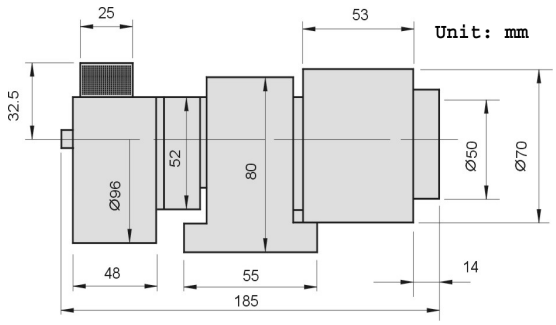
VERTEX® DIAMOND WHEEL BRAKE TRUING DRESSER

- Designed for truing diamond and CBN grinding wheels to restore wheel accuracy and improve surface finishes.
- Continuous contact design provides consistent wheel conditioning for smoother grinding performance and reduced wheel loading.
- Works with both cup and peripheral wheels on horizontal and vertical spindle machines for versatile shop use.
- Heavy-duty rigid construction delivers stable operation, reduced vibration, and long service life in production environments.
- Made in Taiwan with premium VERTEX quality for dependable precision and excellent value.

MADE IN TAIWAN

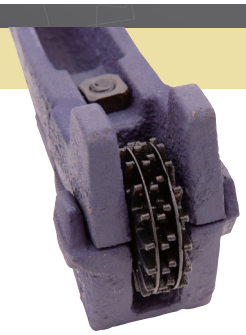
3800-5250





Replacement Grinding Wheel(3x1x1/2")(Item #3800-5252)

GRINDING WHEEL DRESSER



- Ideal for dressing, truing, sharpening, and removing glaze from grinding wheels to restore cutting performance and wheel efficiency.
- Four star-toothed hardened steel cutters provide aggressive, even wheel conditioning for smoother grinding results.
- Designed for use on grinding wheels up to 1" wide, making it versatile for bench and shop grinding applications.
- Heavy-duty construction delivers long service life and dependable performance in maintenance and production environments.
- Supplied with L-wrench for quick cutter adjustment and convenient operation right out of the box.

Wheel Diameter: 1-1/4"
Face Width: 0.45"
Overall Length: 8-1/2"



3900-0062

MAGNETIC CHUCK CONTROLLER

- Suitable for standard type of electric magnetic chucks
- Precisely adjust the magnetic force of electric magnetic chucks
- **Current capacity up to 5A**
- Demagnetizing Time: 6-15 seconds.
- Dimension: 8 Lx5.4 Wx 5" H
- **Input: AC 110V/I phase**
- **Output: DC 0-100V**
- Weight: 8 lbs.

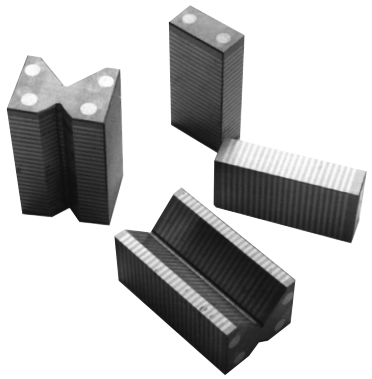


3012-5483

MAGNETIC TRANSMITTING V-BLOCKS & PARALLELS

- Universal-holds in any direction on the magnetic chuck.
- Aluminum cast.
- Ground all over.
- Blocks transmit magnetism, they are not magnetic.

USE ON MAGNETIC CHUCK



V-BLOCK & PARALLELS KIT
3402-0013
Item 3402-0006 & 3402-0009

V-BLOCKS:

- 90° Vee Capacity: Small Vee-1/2" , Large Vee-2"

Item#	Description	Length	Width	Height
3402-0007	SINGLE 90° V-BLOCK	4-3/8"	2-3/8"	1-7/8"
3402-0006	MATCHED PAIR 90° V-BLOCK	2"	2-3/8"	1-7/8"
3402-0009	MATCHED PAIR PARALLELS	4"	2"	1"

VERTEX® MAGNETIC TRANSMITTING PARALLEL & V-BLOCK SET



MATCHED PARALLEL & V-BLOCK SET
3402-0032
Weight: 6 Lbs.

FOR USE ON MAGNETIC CHUCKS (THESE ARE NOT MAGNETIC)



MATCHED PAIRS



- **Made in Taiwan** – High Quality & Exceptional Value: Precision manufacturing delivers consistent accuracy, durability, and performance comparable to premium brands at a more competitive price point.
- **Magnetic Transfer Design (Non-Magnetic Components)** – Parallels and V-blocks are ***not magnetic***; they are engineered to efficiently transmit magnetism from the chuck to the workpiece for stronger, more secure holding.
- **V-Block & Parallel Combination** – Versatile design allows secure holding of both flat and round workpieces in a wide range of setups.
- **Precision Ground Contact Surfaces** – Ensures accurate alignment, improved flatness, and consistent machining results.
- **High Magnetic Conductivity Steel** – Maximizes magnetic transfer efficiency for enhanced holding power, especially on small, thin, or difficult-to-hold parts.
- **Integral Aluminum Base Construction** – Lightweight design reduces handling fatigue while maintaining rigidity and long service life.
- **Complete Magnetic Transfer Set** – Ideal for holding flat, round, and irregular workpieces securely on magnetic chucks during grinding and machining operations.
- **Complete Set in Storage Case** – Organized case improves workflow efficiency and protects components when not in use.

DIMENSIONS:

Parallels 3.94 x 1.97 x 0.98"
V-Blocks 1.95 x 2.28 x 1.79"

MADE IN TAIWAN

VERTEX® MAGNETIC TRANSMITTING PARALLEL SET

- **Made in Taiwan for High Quality & Exceptional Value** – Precision manufactured for consistent accuracy, long service life, and dependable performance at a competitive price point versus premium brands.
- **Magnetic Transfer Design (Non-Magnetic Parallels)** – Parallels are ***not magnetic***; they are engineered to efficiently transmit magnetism from the chuck to the workpiece for stronger, more secure holding.
- **Precision Ground Surfaces** – Accurately ground for improved flatness, reliable setup, and better machining results.
- **Matched Pair Construction** – Provides balanced support, stability, and consistent positioning during machining.
- **High Magnetic Conductivity Steel** – Enhances magnetic transfer efficiency and holding power, especially on smaller or thinner parts.
- **Integral Aluminum Base** – Lightweight yet rigid design allows easy handling without sacrificing durability.
- **Used For** – Ideal for use on magnetic chucks to elevate workpieces, improve magnetic transfer, and increase machining access.

FOR USE ON MAGNETIC CHUCKS (THESE ARE NOT MAGNETIC)

MATCHED PARALLEL PAIR
3402-0028
Weight: 1.5 Lbs.

MADE IN TAIWAN



MATCHED PAIR 2-3/8 x 1-3/8 x 5/8"

PERMANENT MAGNETIC CHUCKS - Fine Pole

- Can be used for processing various magnetic conduction work pieces.
- For surface grinder, tool grinder, EDM and other applications.
- Chucks are sealed and lubricated to be maintenance free.
- Ceramic dense magnets for superior holding power.
- Removable handle.

FINE POLE



Item#	Table Size W x L	Pole Height	Table Height	Pole Spacing	Weight (lbs)
3402-0802	5 x 10"	0.70"	1.60"	1/16 x 1/32"	35
3402-0803	6 x 12"	0.70"	1.60"	1/16 x 1/32"	47
3402-0804	6 x 18"	0.70"	1.60"	1/16 x 1/32"	65
3402-0805*	8 x 22"	0.87"	1.97"	1/16 x 1/32"	150

* Limited Supply

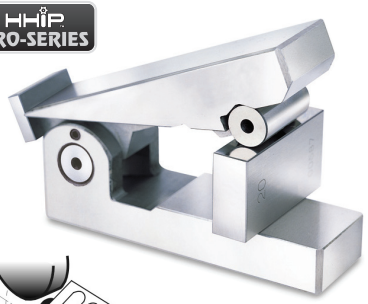
Pro-Series PERMANENT MAGNETIC SINE BAR

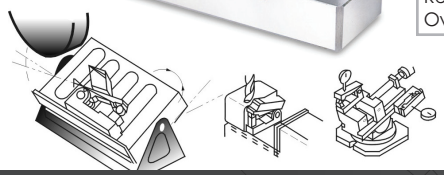
- Designed for any machine on angular testing.
- Magnetic base with permanent power pull
- Hardened and precision ground HRC 56~68.

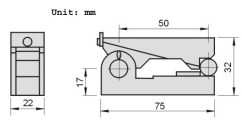
3800-5410

HHIP PRO-SERIES

MADE IN TAIWAN







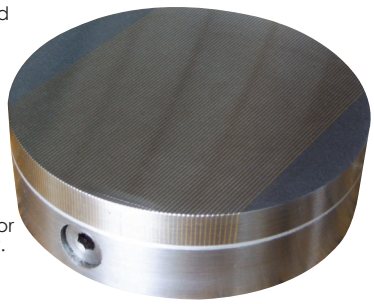
SPECIFICATIONS

Base Magnetic Power.....8 lbs.
Parallelism.....within 0.0001"
Squareness.....within 0.0002"
Distance between Roll Centers..2"
Rolls Accuracy.....+ 0.00008"
Overall Length.....3"

ROUND MAGNETIC CHUCKS - FINE POLE

- Chucks are sealed and lubricated to be maintenance free.
- Ceramic permanent magnets for superior holding power.
- Bottom surface with tapped holes with counterbores for convenient mounting.
- Handle is removable for turning on/off magnet.

FINE POLE



Item#	Size	Height	Pole Spacing	Wt. (lbs.)
3402-0822	6"	2-15/16	1/16 x 1/32"	18
3402-0824	8"	3-1/8	1/16 x 1/32"	29
3402-0828	12"	3-5/16	1/16 x 1/32"	65

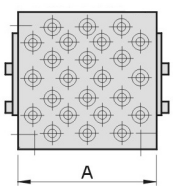
6 x 6 ULTRA PRECISION SINE PLATES

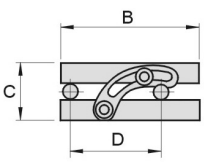


- Made of high grade tool steel hardened and precision ground HRC 55~58.
- Two hardened side rails and one locking strap included.

Value
3900-5526
MADE IN CHINA

HHIP PRO-SERIES
3800-5526
MADE IN TAIWAN





SPECIFICATIONS

Capacity:.....0~60°
Squareness:.....within 0.0002"
Parallelism:.....within 0.0002"
Center Distance of Rolls Accuracy:.....within 0.0002"
Minute Angle Step on Gage Block Roll:.....0.200"
Tapped holes:.....1/4"-20 UNC
Size (B x A).....6" x 6"
Height (C).....2.36
Center Distance of Rolls (D).....5"
No. of Tapped Hole.....24
Wt.(lbs.).....18

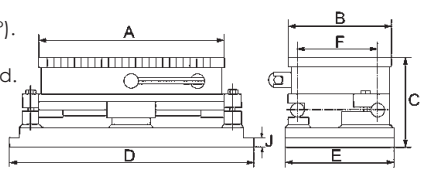
MAGNETIC SINE PLATE - Fine Pole



- Ceramic dense permanent magnets plate provide extreme power up to 100 lbs.
- Fine pole spacing works for both thick and thin parts.
- Rigid angles lock strap capacity 0~60° (Accuracy 5" /per 15°).
- Hardened side and back rolls included.
- Made of high grade steel hardened to 55~62 RC and ground.
- Removable On/Off handle included.
- Gross Weight: 35 lbs.

FINE POLE

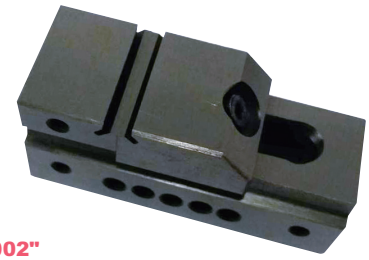
3402-0810



Size AxBxC	Rolls Center F	Pole Spacing	Square & Parallel	D	E
6 x 6 x 4"	100mm	1/16 x 1/32"	.0003"	8"	6"

1" TOOLMAKER'S VISE

- Hardened and precision ground,
- The "no-rise" jaw construction exerts a continual downward pressure to the jaw, eliminating tilting & lifting
- Jaw can be opened and closed without unbolting from work surface.
- **With step jaws.**

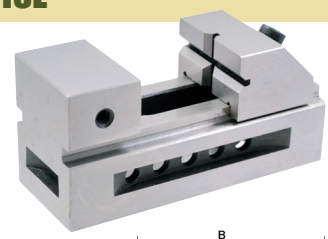


SQUARE & PARALLEL 0.0002"

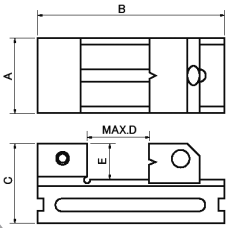
Item#	Jaw Width	Jaw Depth	Jaw Opening	OAL
3900-0124	1"	0.5"	1"	2.6"

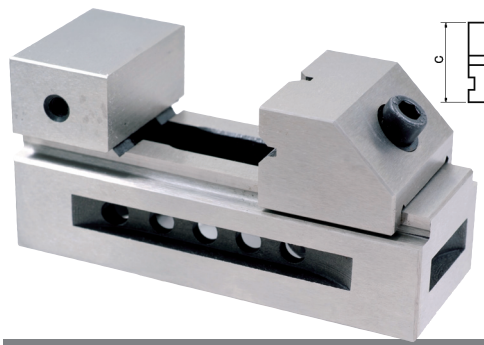
38mm TOOLMAKER'S VISE

- Hardened and precision ground.
- The "no-rise" jaw construction exerts a continual downward pressure to the jaw, eliminating tilting & lifting
- Jaw can be opened and closed without unbolting from work surface.
- **No step jaws.**
- **1.5" jaw width.**



SQUARE & PARALLEL 0.0002"



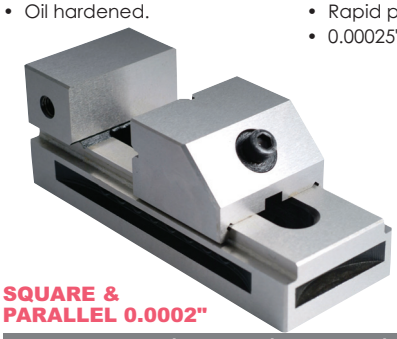


Unit: Inch/mm

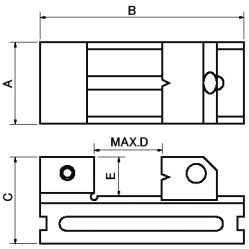
Item#	Jaw Width A	Jaw Depth E	Jaw Opening D	Vise Ht. C	OAL B
3900-0125	1.50/38	0.79/20	1.57/40	1.89/48	3.94/100

PRECISION SCREWLESS VISES

- With V-Groove
- Oil hardened.
- Precision ground.
- Rapid positioning notches.
- 0.00025" square and parallel.



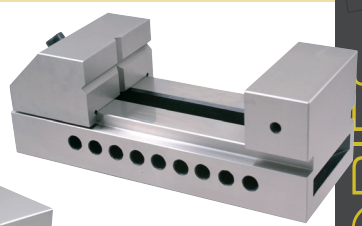
SQUARE & PARALLEL 0.0002"



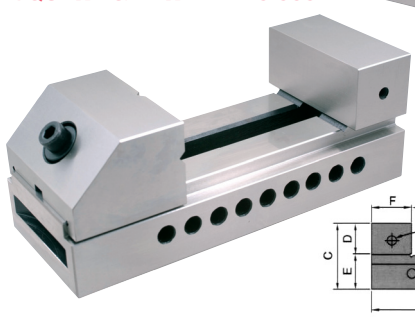
Item#	Jaw Width A	Jaw Depth E	Jaw Opening D	Vise Ht. C	OAL B
3900-0020	1"	3/8"	1"	1.2"	2-5/8"
3900-0022	2"	1-1/4"	2.25"	2.0"	6"
3900-0024	3"	1-5/8"	4"	3.2"	7-5/8"

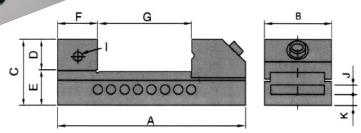
TOOLMAKER'S VISES - Without Slot

- Hardened and precision ground.
- No clamping slot.
- Ground "V" way in sliding jaw.



SQUARE & PARALLEL 0.0002"

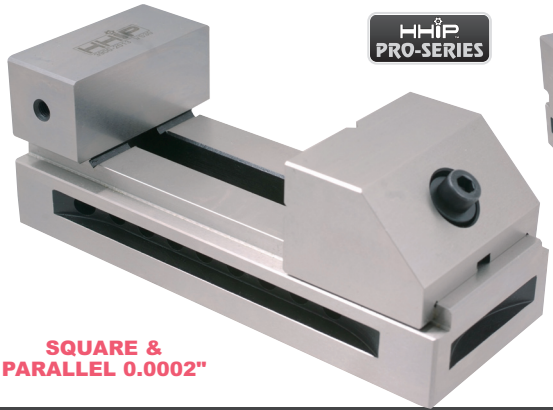




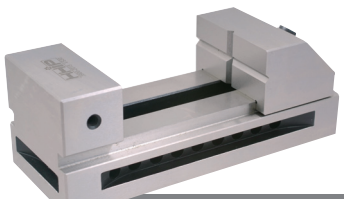
Item#	Jaw Width B	Jaw Depth D	Jaw Opening G	A	C	Weight Lbs.
3900-0122	2"	1.00"	2.4"	5.3"	2"	4.0
3900-0123	3"	1.38"	3.8"	7.3"	3"	9.5

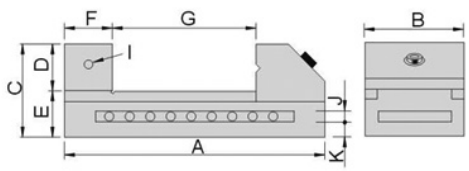
Pro-Series ULTRA PRECISION TOOLMAKER'S VISES

- Hardened and precision ground, HRC55~60°.
- The "no-rise" jaw construction exerts a continual downward pressure to the jaw, eliminating tilting & lifting.
- Jaw can be opened and closed without unbolting from work surface.
- Tolerance within 0.00012"(Parallelism), 0.0002" (Squareness).



SQUARE & PARALLEL 0.0002"





Item#	Jaw Width B	A	C	D	E	F	G	I	J	K
	(mm)									
3900-2012	50	150	53	25	28	30	0-80	M6	8	8
3900-2013	73	190	70	35	35	35	0-100	M6	10	12
3900-2003	88	235	80	40	40	40	0-130	M8	12	14
3900-2014	100	245	90	45	45	45	0-130	M8	12	16
3900-2015	125	285	100	50	50	45	0-160	M8	14	18

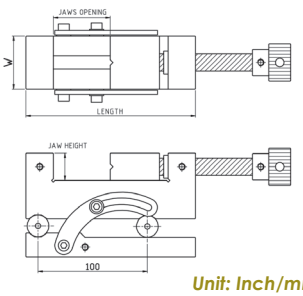
VERTEX® 3" PRECISION SINE VISE WITH HANDLE

- **Made in Taiwan** – High Quality & Exceptional Value: Precision manufacturing delivers consistent accuracy and durability comparable to premium brands at a more competitive price
- **Precision Sine Vise Design** – Quickly sets accurate angles for inspection, grinding, milling, and EDM applications.
- **Adjustable 0°–46° Range** – Easily creates single or compound angles using gage blocks and sine setup calculations.
- **Hardened SK2 Tool Steel Construction** – Heat treated to HRC 54° ±2 with sub-zero processing for wear resistance and dimensional stability.
- **Excellent Parallelism** – Accuracy within 0.003mm per 100mm for dependable precision setups.
- **High Squareness Accuracy** – Maintains 0.005mm per 100mm for accurate jaw alignment and part positioning.
- **Smooth Screw Handle Operation** – Easy clamping and secure holding with fine adjustment control.
- **Ground Contact Surfaces** – Precision finished surfaces improve repeatability and setup confidence.

MADE IN TAIWAN

3" Vise
3900-2610
Weight: 19 Lbs.





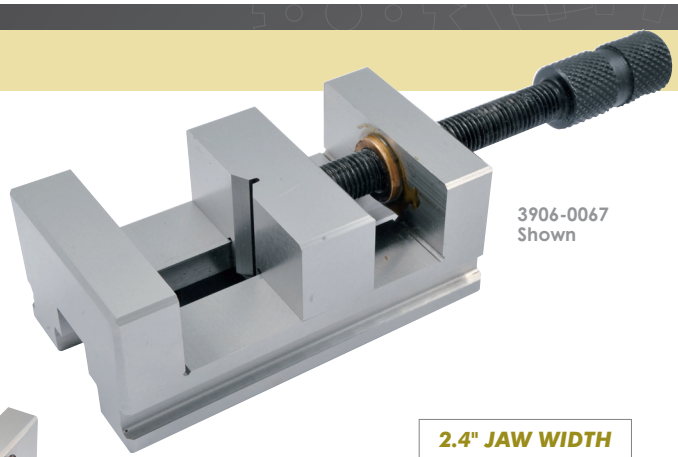


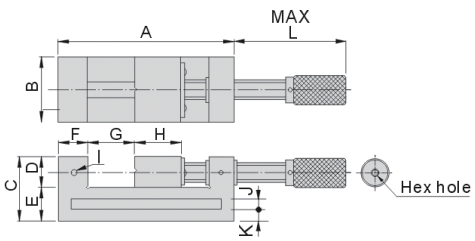
SPECIFICATIONS *Unit: Inch/mm*

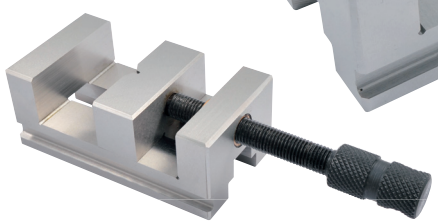
Vise Size	Jaw Width	Jaw Depth	Jaw Opening	Vise Height	Vise Length	Center to Center
3"	2.87/73	1.18/30	2.83/72	4.06/103	7.09/180	3.94/100

PRECISION TOOLMAKER'S VISES - With Lead Screw

- **High Precision Accuracy** – Square and parallel surfaces precision ground to ±0.0002" for exact machining and inspection work.
- **Hardened Steel Construction** – All working surfaces hardened to 52~58 HRC for long service life and wear resistance.
- **Smooth Lead Screw Operation** – Lead screw provides controlled, consistent clamping force for delicate and precision parts.
- **Replaceable Jaws Include** – Clamping slots provided; jaws are easily replaced to extend tool life.
- **Ground V-Way Design** – Ensures smooth travel, accurate alignment, and reliable repeatability.







2.4" JAW WIDTH
3906-0067
Weight: 3.6 Lbs.

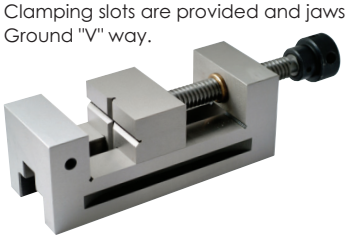
2.9" JAW WIDTH
3906-0068
Weight: 12.35 Lbs.

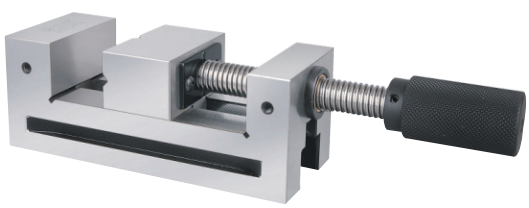
SPECIFICATIONS *Unit: Inch*

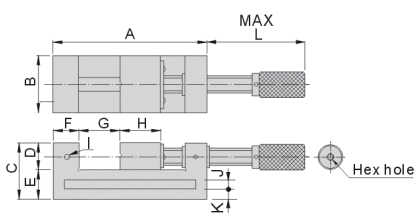
Jaw Width	A	B	C	D	E	F	G	H	J	K	Max. L
2.40	4.50	2.40	1.80	1.00	0.80	0.65	0-2.12	0.89	0.33	0.23	4.16
2.90	7.90	2.90	2.76	1.56	1.20	1.37	0-2.90	2.38	0.40	0.48	4.60

PRECISION TOOLMAKER'S VISES - Screw Type

- All surfaces are hardened (52~58 HRC)and precision ground square and parallel to accuracy of +/- .0002".
- Clamping slots are provided and jaws are easily replaced.
- Ground "V" way.







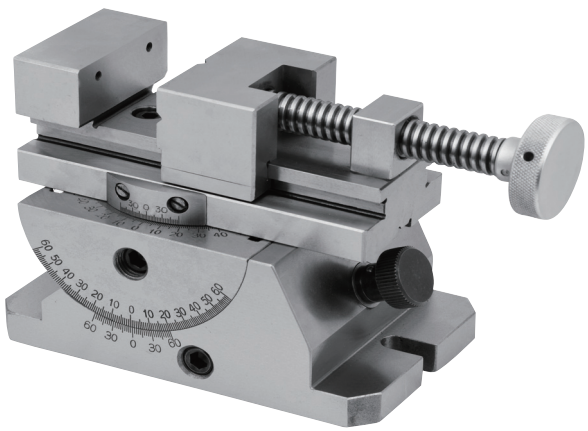
Unit: mm

Item#	Jaw Width	A	B	C	D	E	F	G	H	I	J	L	Weight
3900-0067	2"	156	48	52	25	27	25	0-63	34	M6	8	125	5.1 lbs
3900-0251	3"	190	73	73	35	38	35	0-76	45	M6	10	151	12.1 lbs
3900-0068	4"	255	98	82	40	42	40	0-120	50	M8	12	196	24.2 lbs

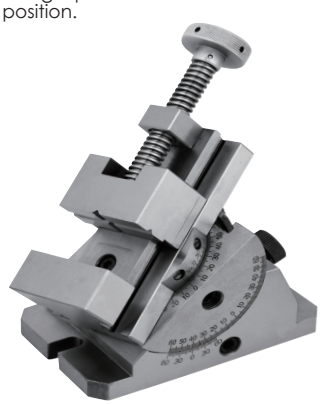
UNIVERSAL MOVEMENT VISE

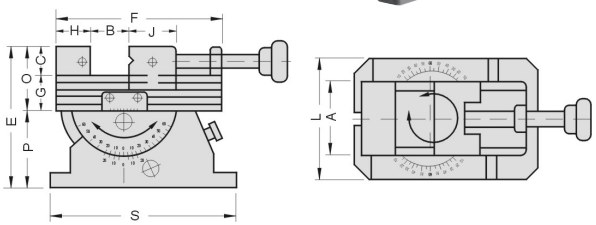
Universal Movement Vise is a highly versatile clamping tool designed for precision machining, grinding, and inspection applications.

- **Multi-Directional Adjustability** - Allows movement in multiple axes, including horizontal, vertical, and angular adjustments. Vise can revolve 360° horizontally with 3" graduation engraved and +/-45° vertical with 3" graduation engraved.
- **Precision Ground Surfaces** - Ensures accurate alignment and smooth movement for precision machining tasks.
- **Heavy-Duty Construction** - Made from high-grade hardened steel for durability and rigidity. Hardened and ground. Tolerance of 0.0004" parallelism and squareness.
- **Swivel Base** - Provides full 360° rotational capability with degree markings for easy angle setting.
- **Strong Clamping Force** - Equipped with hardened steel jaws to securely hold workpieces with minimal movement.
- **Adjustable Gibs for Smooth Operation** - Ensures precise and backlash-free movement of the vise components.
- **Versatile Mounting Options** - Pre-drilled holes for secure attachment to milling machines, drill presses, or grinding tables.
- **Includes:** precision vise, swivel angle plate base and L-wrench for locking vise horizontal at any position.



2-3/4" Jaw Width
3906-2621
Weight: 26 Lbs.





DIMENSIONS

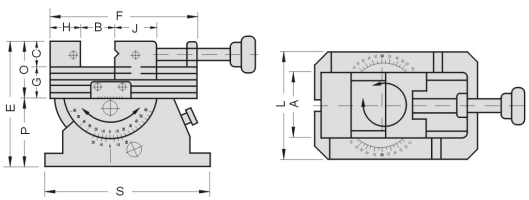
Jaw Width	Jaw Depth	Jaw Opening	A	B	C	E	(Inch) F	G	H	J	L	P	S
2-3/4	1.18	3.15	3.75	3.15	1.18	5.39	6.3	1.3	1.3	1.8	4.33	2.95	7.09

Pro-Series UNIVERSAL MOVEMENT VISE

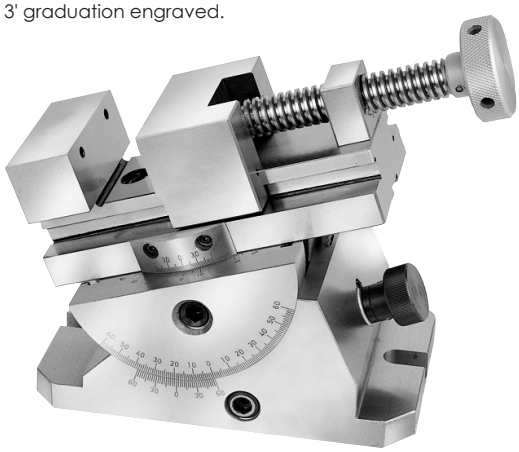
MADE IN TAIWAN

HHIP PRO-SERIES

- This fixture is composed of two parts: namely a precision vise and a swivel angle plate base.
- Vise is capable of revolving 360° horizontally with 3' graduation engraved and ±45° vertical with 3' graduation engraved.
- L-wrench included for locking vise horizontal at any position.
- Vertical angle can be adjusted with fine adjustable knob.
- Hardened and precision ground. Provides a tolerance of 0.0004" Parallelism and Squareness.
- Unique universal movement for precision grinding, machining, boring and various applications.



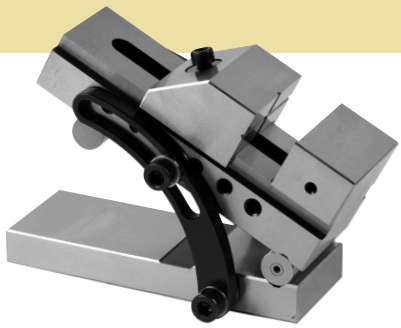
2-3/4" Jaw Width
3900-2621
Weight: 31 Lbs.



Jaw Width	Jaw Depth	Jaw Opening	A	B	C	E	(Inch) F	G	H	J	L	P	S
2-3/4	1.18	3.15	3.75	3.15	1.18	5.39	6.3	1.3	1.3	1.8	4.33	2.95	7.09

PRECISION SINE VISES

- Hardened and precision ground. provides a tolerance of 0.0004" for both parallelism and squareness.
- Sine range: 6~60°.
- Jaw can be opened or closed without unbolting from work surface.



Item#	Jaw Width	Jaw Depth	Jaw Opening	Center to Center	Base Size
3900-2603	2"	1"	2-5/8"	4.00"	5-3/8"x2"
3900-2605	3"	1-1/4"	4"	4.00"	7-5/8"x3"

Pro-Series STAINLESS STEEL VISES

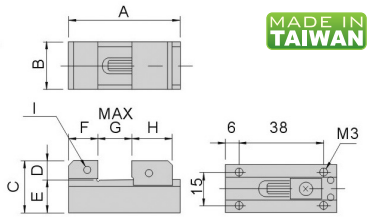
STAINLESS STEEL VISE - 21MM Jaw Width



- A delicate vise suitable for clamping precision workpieces.
- Made of stainless steel SUS440 classified as corrosion & heat resistant for EDM, grinding and other applications which is sensitive to rust.
- Hardened and precision ground.
- Hardness: HRC 48~55°

SQUARE & PARALLEL 0.00012"

21MM JAW
3901-2721



MADE IN TAIWAN

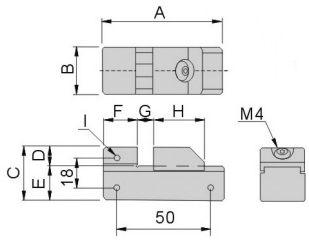
Jaw Width B	Jaw Depth D	Jaw Openning G	Vise Height C	Vise Length A	E	F	H	Threaded Hole I	Wt. (Lbs)
21mm	8.5mm	15mm	23.5mm	50mm	15mm	13mm	18mm	M3	0.4

STAINLESS STEEL VISE - 25MM Jaw Width

- A compact precision vise suitable for small precision workpieces, apply by wrench.
- Made of stainless steel SUS440 classified as corrosion & heat resistant for EDM, grinding and other applications which is sensitive to rust.
- Hardened and precision ground.
- Hardness: HRC 48~55°

SQUARE & PARALLEL 0.00012"

25MM JAW
3901-2725



MADE IN TAIWAN

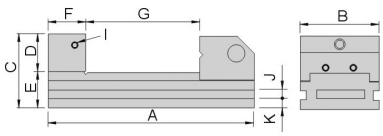


Unit: mm

Step Jaws	Jaw Width B	Jaw Depth D	Jaw Openning G	Vise Height C	Vise Length A	E	F	H	Threaded Hole I	Wt. (Lbs)
No	25	12	20	32	65	20	20	25	M4	0.6

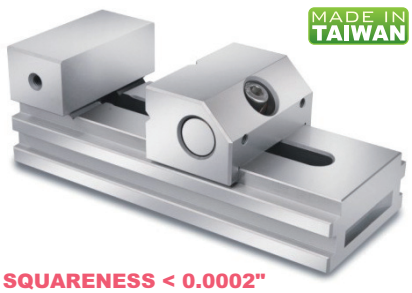
STAINLESS STEEL TOOLMAKERS VISE - 73MM Jaw Width

- Made of stainless steel SUS440 classified as corrosion & heat resistant for EDM, grinding and other applications which is sensitive to rust.
- Hardened and precision ground.
- Hardness: HRC 48~55°



73MM JAW
3901-2772

MADE IN TAIWAN



SQUARENESS < 0.0002"
PARALLELISM < 0.00012"

Jaw Width B	Jaw Depth D	Jaw Openning G	Vise Height C	Vise Length A	E	P	Wt. (Lbs)
73mm	35mm	100mm	70mm	190mm	35mm	50mm	9.5

STAINLESS STEEL TOOLMAKER'S & EDM VISE - 50mm or 72mm Jaw Width

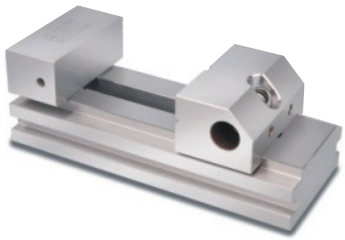
- Suitable for high precision grinding, milling and EDM.
- Made of stainless steel SUS440 classified as corrosion & heat resistant for EDM, grinding and other applications which is sensitive to rust.
- Hardened and precision ground.
- Hardness: HRC 48~55°

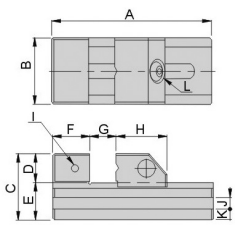
SQUARE & PARALLEL 0.00012"

MADE IN TAIWAN

50MM JAW
3901-2732

72MM JAW
3901-2734





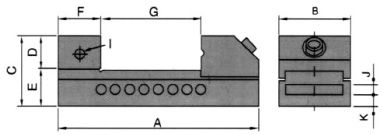
Unit: mm

Item #	Jaw Width B	Jaw Depth D	Jaw Openning G	Vise Height C	Vise Length A	E	F	H	Threaded Hole I	Slot J	K	Wt. (Lbs)
3901-2732	50	25	75	53	140	28	25	40	M6	6 W x 5 D	8.5	3.3
3901-2734	72	30	100	62	180	32	35	45	M6	8 W x 7 D	9.0	6.6

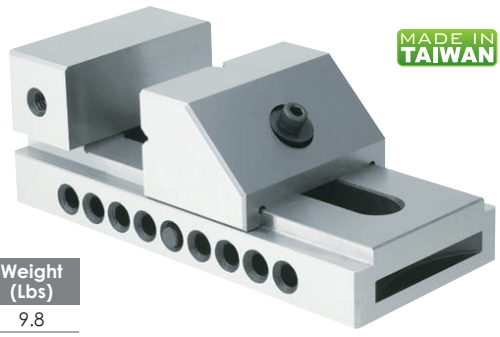
STAINLESS STEEL VISE - Screwless Type

- Hardened and precision ground.
- Made of stainless steel specially for EDM, grinding and other application which is sensitive to rust.

SQUARE & PARALLEL 0.0002"



2-3/4" JAW
3900-2001

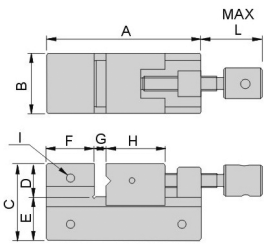


Jaw Width B	Jaw Depth D	Jaw Openning G	Vise Height C	Vise Length A	E	F	Weight (Lbs)
2.87"	1.38"	3.94"	2.68"	7.48"	1.3"	1.38"	9.8

STAINLESS STEEL VISE WITH HANDLE - 25MM Jaw Width

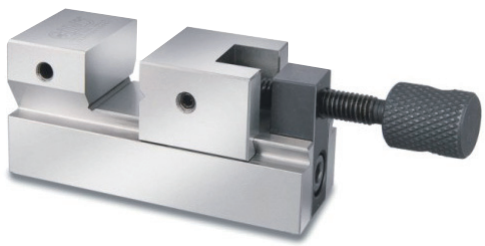
- Screw rod design allows you to easily tighten the jaws on tight workpieces.
- Made of stainless steel SUS440 classified as corrosion & heat resistant for EDM, grinding and other applications which is sensitive to rust.
- Hardened and precision ground.
- Hardness: HRC 48~55°

SQUARE & PARALLEL 0.00012"



MADE IN TAIWAN

25MM JAW
3901-2741

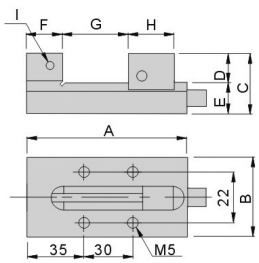


Jaw Width B	Jaw Depth D	Jaw Openning G	Vise Height C	Vise Length A	Max. L	E	F	H	Threaded Hole I	Wt. (Lbs)
25mm	14mm	25mm	32mm	70mm	43mm	18mm	20mm	25mm	M4	1.1

STAINLESS STEEL COMPACT VISE WITH HANDLE - 40MM Jaw Width

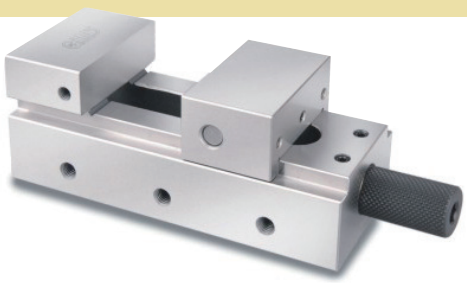
- Compact structure vise with a special design to prevent any floating of workpiece when clamped.
- Compact screw rod design for easy tightening.
- Made of stainless steel SUS440 classified as corrosion & heat resistant for EDM, grinding and other applications which is sensitive to rust.
- Hardened and precision ground.
- Hardness: HRC 48~55°

SQUARE & PARALLEL 0.00012"



MADE IN TAIWAN

40MM JAW
3901-2750



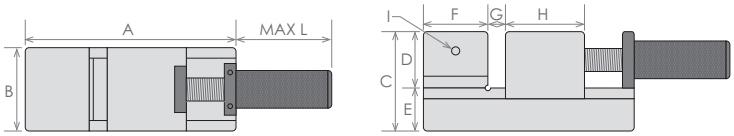
Jaw Width B	Jaw Depth D	Jaw Openning G	Vise Height C	Vise Length A	E	F	H	Threaded Hole I	Wt. (Lbs)
40mm	15mm	40mm	40mm	100mm	25mm	25mm	25mm	M5	2.2

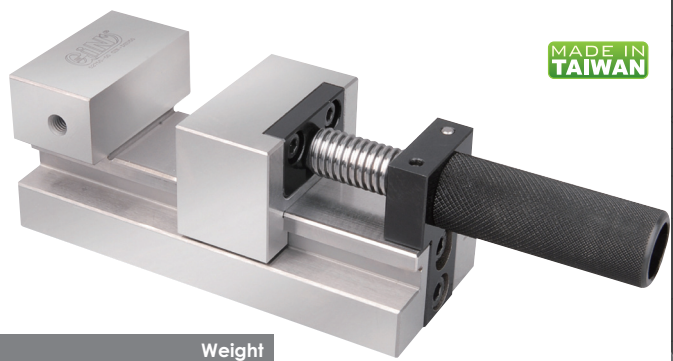
STAINLESS STEEL TOOLMAKERS VISE - 1-3/4" Jaw Width

- Hardened and ground.
- Made of stainless steel specially for EDM, grinding and other application which is sensitive to rust.
- Hardness: 48~55°

SQUARE & PARALLEL: 0.00012"

1-3/4" JAW WIDTH
3900-2004





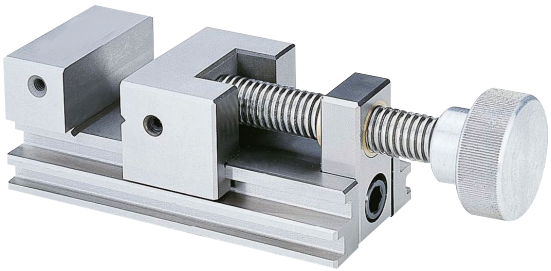
SCREW ROD DESIGN LOCKS TIGHT TO HOLD SMALL WORKPIECE.

Jaw Width B	Jaw Depth D	Jaw Openning G	Vise Height C	Vise Length A	E	F	H	I	Weight (Lbs)
1-3/4"	0.79"	0~1.97"	1.77	4.33"	0.98"	0.98"	0.94"	M5	3.8

STAINLESS STEEL VISES & EDM VISES

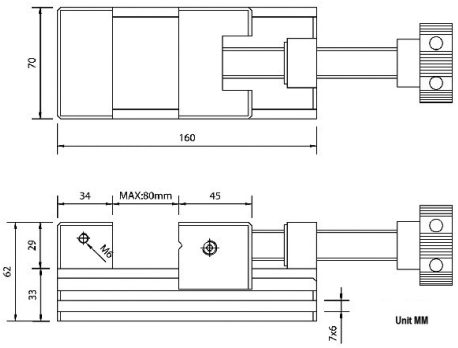
Pro-Series STAINLESS STEEL VISES - Screw Type

- Hardened and precision ground.
- Made of stainless steel specially for EDM, grinding and other application which is sensitive to rust.



MADE IN TAIWAN

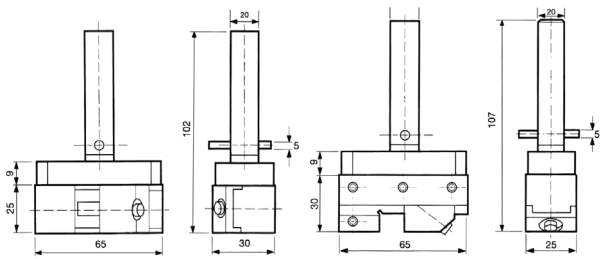
SQUARE & PARALLEL 0.0002"



2-3/4" Jaw Width
3900-2005

VERTEX® EDM MINI ELECTRODE STEEL VISE

- **Made in Taiwan** – High Quality & Exceptional Value: Precision manufacturing delivers consistent accuracy and durability comparable to premium brands at a more competitive price
- **Designed for EDM Electrode Holding** – Ideal for securing electrodes accurately during EDM machining and setup work.
- **Cross V-Groove Jaw Design** – Holds round, square, and irregular-shaped workpieces in both vertical and horizontal positions.
- **Compact Mini Vise Body** – Excellent for small electrodes, tight machine spaces, and precision fixture setups.
- **Hardened Alloy Steel Construction** – Made from SKS alloy steel, hardened and ground for long wear life and dependable accuracy.
- **High Hardness Rating** – Heat treated to HRC 58°–60° for excellent durability and edge retention.
- **Precision Ground Surfaces** – Smooth contact faces help improve repeatability and setup accuracy.
- **Post Mounting Design** – Cylindrical shank allows quick installation in fixed electrode holders and EDM fixtures.



Unit: Inch/mm

Jaw Width	Jaw Depth	Max. Jaw Opening	Length	Weight Lbs.
0.98/25	0.39/10	0.787/20	2.56/65	1.8

MADE IN TAIWAN



1" Jaw Width
3901-2770
Weight: 1.8 Lbs.

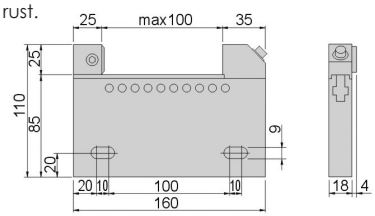
Pro-Series STAINLESS STEEL EDM VISE - 18MM Thickness

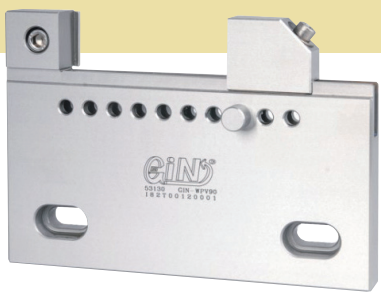
- Suitable for small and thin workpiece applications.
- With 45° lock down design, workpiece anti-floating when clamp.
- Used for EDM, grinding and other applications which are sensitive to rust.
- Made of stainless steel that is classified as corrosion-resistant.
- Hardened and precision ground.
- Clamping Range: 0~100mm
- Weight: 6.2 lbs.
- Hardness: HRC 45~55°

SQUARENESS < 0.0002"

MADE IN TAIWAN

18mm Jaw Width
3901-2766





PARALLELISM < 0.00012"

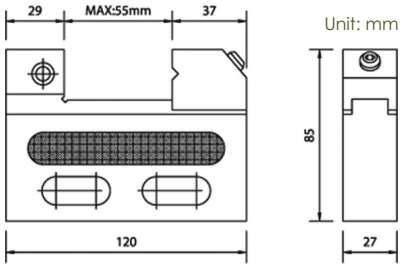
VERTEX® EDM STAINLESS STEEL TOOL VISE - 1" Jaw Width

- Material: SUS 440.
- Hardness: HRC 52~56°
- Used for wire cutter with high erosion resistance.
- N.W. : 2.3 Lbs.

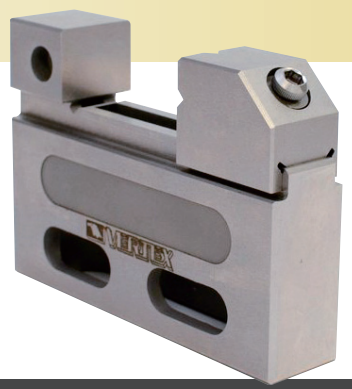
SQUARENESS & PARALLELISM < +/- 0.0001"/Per 4"

1" Jaw Width
3900-2007

MADE IN TAIWAN



Unit: mm



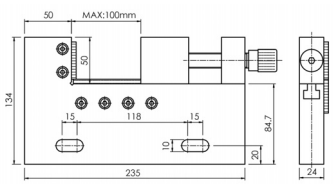
VERTEX® EDM STAINLESS STEEL TOOLMAKER VISE - 100MM OPENING

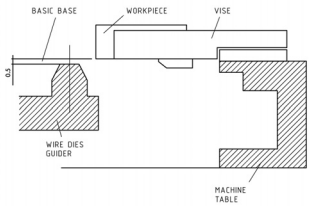
- **Made in Taiwan** – High Quality & Exceptional Value: Precision manufacturing delivers consistent accuracy and durability comparable to premium brands at a more competitive price.
- **Stainless Steel Construction (SUS420)** – Corrosion-resistant body ideal for EDM, wet environments, coolant exposure, and rust-sensitive applications.
- **100mm Jaw Opening Capacity** – Handles a wide range of small to medium precision workpieces.
- **Precision Ground & Hardened Surfaces** – Hardened to HRC 54° ±2 for long wear life and dependable accuracy.
- **Exceptional Accuracy** – Parallelism and squareness held to ±0.002mm per 100mm for high-precision work.
- **Compact Toolmaker Style Design** – Excellent for limited-space setups on EDM machines, grinders, mills, and inspection fixtures.
- **Smooth Fine-Pitch Screw Operation** – Easy jaw adjustment with secure, controlled clamping pressure.
- **Low Profile Body** – Improves access to the workpiece and maximizes machine clearance.

*Ideal for **wire EDM, sinker EDM, grinding, inspection, light milling, jig work, and precision part holding** where corrosion resistance and tight tolerances are required.*

3901-2768
Weight: 12 Lbs.

PARALLELISM ≤ +/- 0.002mm/per 100mm
SQUARENESS ≤ +/- 0.002mm/per 100mm







Unit: Inch/mm

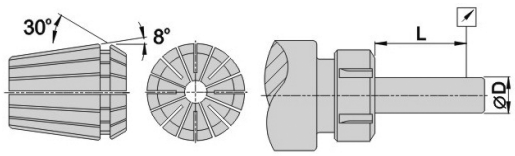
Vise Thickness	Jaw Depth	Max. Jaw Opening
0.944/24	1.97/50	3.94/100

MADE IN TAIWAN

Pro-Series IP68 WIRE EDM STAINLESS STEEL DIVIDING FIXTURE - USE ER-32 COLLETS

- Made of high quality stainless steel (except ER collet and nut).
- Waterproof EDM dividing unit rated IP68.
- Heavy duty structure and rigid for long life.
- It can rapidly clamp the workpiece and achieve higher stability during processing, no need to adjust the center accuracy.
- High precision double bearings in the structure so it achieves higher accuracy, rigidity and stability.
- Collet clamping range diameter 2mm ~ 34mm with 1mm steps.
- ER-32 collects included: 4, 8, 12, 16 & 20mm
- Dust-proof and water resistant.





Unit: mm

L	D	ACCURACY
6	1.0-1.6	0.01
10	1.6-3.0	0.01
16	3.0-7.0	0.01
25	7.0-10.0	0.01
40	10.0-18.0	0.01
50	18.0-24.0	0.01
60	24.0-34.0	0.01

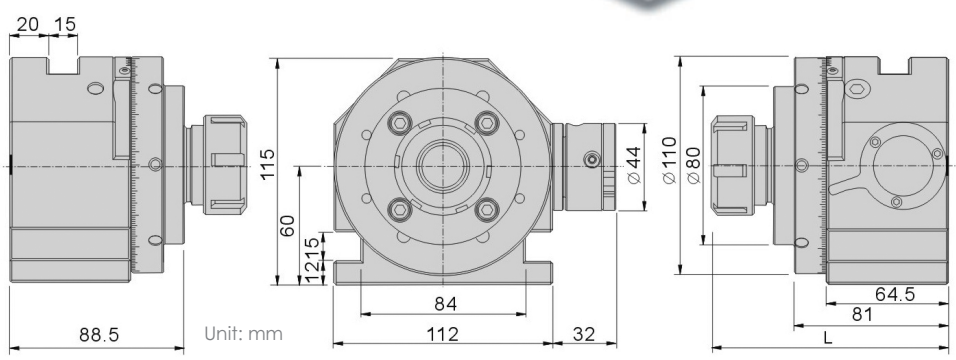
IP 68

WATER AND COOLANT RESISTANT!

3903-1605

SPECIFICATIONS	
Center Height	60mm ±0.5mm
Indexer Tooth Quantity&Accuracy	24, 15° ±5"
Through Hole Diameter	21mm
Rotational Accuracy	0.003mm

ER collets shown on page 244.



WORK LIGHTS & MAGNIFIERS

LAMP ON MAGNETIC BASE

- Powerful magnetic base with On/Off switch.
- Guaranteed power pull 130 lbs.
- Flexible arm for any position adjustment.
- 60 VA power rating.
- **Power supply:** 115V/ 60Hz/ 1 Phase.
- Uses regular screw-on bulb (not included).
- **Base Dimension:** 2-5/16" L x 2" W x 2" H



8401-0049

VERTEX® WORK LIGHT ON MAGNETIC BASE WITH FLEXIBLE ARM

MADE IN TAIWAN



8401-0050

- Powerful magnetic base with On/Off switch, holding power 180 lbs.
- Magnetic base dimension: 2-5/16 L x 2 W x 2" H
- Loc-line style flexible arm
- Use regular screw-on bulb(not included)
- Power Supply: 110V/1 Phase

8x LED LIGHT DESK TOP MAGNIFIER

- 8x powerful magnifier in diopters
- Flexible arm any desired position adjustable
- Diameter of Visible Area: 5"
- Adjustable LED light with 300 LUX brightness, 2.5Watt.
- Power Supply: 110V/1 phase
- Furnished with 60" cord.

8070-0001

BRIGHTNESS: 300 LUMENS



Replacement Bulb (8070-0004)

WATERPROOF LED WORKING LIGHTS-Small Head

- LED lights (1.1 Watt) provide an excellent solution for heat sensitive environment.
- Small head (1.2" Diameter) with high brightness
- 50,000 hours LED lifetime
- Arm Length: 21.50".
- Power Supply: 110V AC/ 1 phase.

BRIGHTNESS: 110 LUMENS
5,000 KELVIN



Bolt On
8401-0458
Bolt-On Mounting Plate: 2-3/8 x 2-3/8"

With Mag. Base
8401-0459
Magnetic Base: 2-3/8 x 2-3/8" with 110 lbs power pull.

WATERPROOF LED WORKING LIGHTS

- LED lights provide an excellent solution for heat intensive environment.
- High Brightness with 330 Lumens
- Magnetic Base: 2 x2 " with 110 lbs power pull.
- 50,000 hours LED lifetime
- Arm Length: 20".
- Power Supply: 110V AC/ 1 phase.
- Bolt-On Mounting Plate: 2 x 2"

BRIGHTNESS: 330 LUMENS



Bolt on WORK LIGHT
8401-0448

Work Light on Mag. Base
8401-0449

22" LED WORKING LIGHT - Bolt On

- LED lights provide an excellent solution for heat intensive environment.
- 18" goose neck.
- Lasts 50 times longer than regular flashlights.
- 30 LED bulbs provides brighter and stronger natural light.
- Power Supply: 110V AC/ single phase.



8401-0443

BRIGHTNESS: 250 LUMENS

25" LED WORKING LIGHT -On Magnetic Base



BRIGHTNESS: 250 LUMENS

8401-0445

- 18.5" gooseneck.
- Magnetic Base: 2-1/2x2" with On/Off switch, 150 lbs power pull.
- LED lights provide an excellent solution for heat intensive environment.
- Lasts 50 times longer than regular flashlights.
- 30 LED bulbs provides brighter and stronger natural light.
- Power Supply: 110V AC/ single phase.

VERTEX® HALOGEN WORK LIGHT - WATERPROOF

- Totally enclosed lighting head provides well prevention for dust, coolant and lubricants.
- Efficient quartz halogen bulb (50W), great light output, soft illuminationg.
- Coil transformer built in base for directly connect to AC 110 V power.
- Furnished with 6 ft cord with plug.
- Full reach: 36"



BOLT ON SCREWS INCLUDED

BRIGHTNESS: 370~600 LUMENS

Work Light
8401-0452



Mounting Clamp
8401-0456

CE CERTIFIED

MADE IN TAIWAN

7W WATERPROOF LED WORK LIGHT

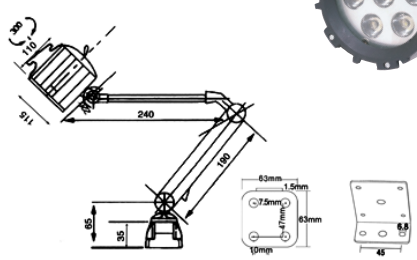
- LED lights (7 Watt) provide an excellent solution for heat sensitive environment.
- The head of light installed filter-able ultraviolet ray high temperature resisting glass and heat insulation structure
- Light head diameter: 4-3/8".
- Universal movement.
- 50,000 hours LED lifetime.
- Flux: 700Lm.
- Color temperature: 6500 K
- Power Supply: 110V AC/ 1 phase.
- Switch On/Off.

Bolt-On Mounting Plate: 2-3/8 x 2-3/8"

With Swivel Arm
Total 18" Length (8+9")
8401-0466



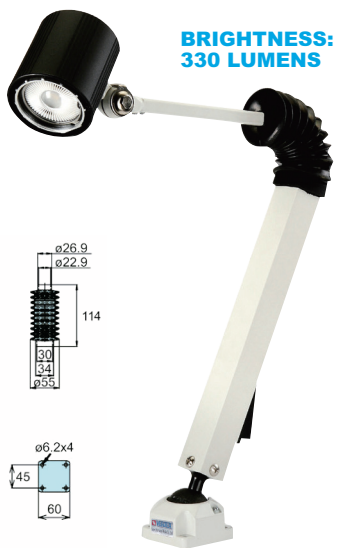
BRIGHTNESS: 700 LUMENS

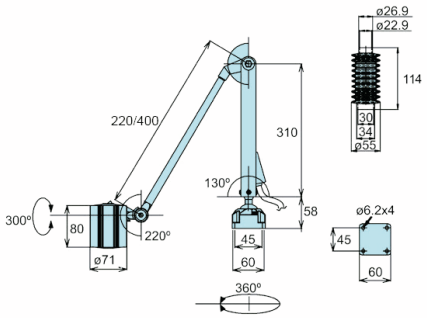


VERTEX® CONCENTRATE LED WORK LIGHTS - Bolt On

- Dust proof.
- Suitable for small CNC, engraving, sewing machine and heat sensitive environment.
- Flexible movement with folding arms.
- Built-in transformer
- Power consumption: 5.3W
- Input 110V AC, output 12V DC
- Sturdy rod-arm with special joint.

BRIGHTNESS: 330 LUMENS

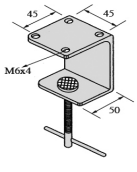




CE CERTIFIED

MADE IN TAIWAN

Item #	Arm Length Lxl	Use Bulb	Weight Lbs.
8401-0481	220x310mm	6W	4.0
8401-0483	400x310mm	6W	4.5



Mounting Clamp
8401-0486*

* Limited Supply



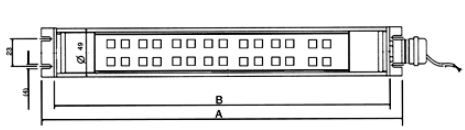
Spare Bulb
8401-0488

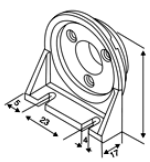
IP65 WATERPROOF HIGH FLUX LED MACHINE WORK LIGHTS

- Bright LED lights provide an excellent solution for heat sensitive environment.
- Color temperature: 6500 K.
- 50,000 hours LED lifetime.
- 4 slots (2 of each side) for bolt-on.
- Hardwire direct to your machine.









Item#	Input Voltage	Power	Length A/B(mm)	Flux Lm
8401-0478	24V	11.2 W	560/535	1120
8401-0479*	110V	16.8 W	760/735	1680

* Plug Included

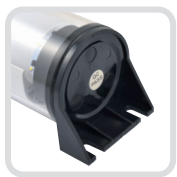
Pro-Series IP67 WATERPROOF TUBE LED MACHINE WORK LIGHTS

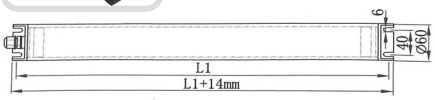
- IP67 rated water/coolant proof.
- LED lights provide an excellent solution for heat sensitive environment.
- Color temperature: 6000~6500 K.
- Uniform distribution of light, excellent lighting effects and no glare.
- Diffusion plate gives high light transmittance and comfortable light for operators.
- 50,000 hours LED lifetime.
- Easy installation and low maintenance.
- High quality IP67 waterproof connector, aluminum PCB, Silicone rubber sealing ring and borosilicate glass tube(60mm Diameter).
- Abient working temperature: -13°F~131°F(-25°C ~+55°C).
- Hardwire direct to your machine.











Item#	Power	Power Supply	(mm) Length L	(mm) Length L1	Flux Lm
8401-0492	17 W	24V AC/DC	528	564	1700
8401-0493	20 W	24V AC/DC	668	704	2000
8401-0494	24 W	24V AC/DC	773	809	2400

SAFETY SHIELD WITH MAGNETIC BASE



4401-0518

- Protects eyes from cutting chips
- Shield Dimension: 12 x 10"
- Magnetic base: 2.5 x 2 x 2".
- Permanent magnet with strong power pull 180 lbs..

SAFETY SHIELD WITH DISC MAGNETIC BASE

- Protects eyes from cutting chips
- Universal movement.
- Positively locks all with unique locking mechanism.
- Shield Dimension: 12 x 8"
- Super power disc magnetic base: 2.6" dia. x 0.4" depth.



4401-0517

MAGNETIC SAFETY SHIELD WITH ADJUSTABLE ARM

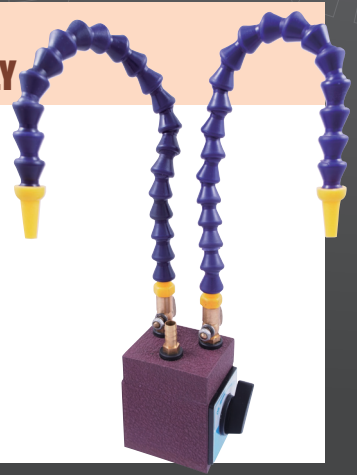


- Shield Size: 6 x 8"
- Reach: 12"
- Loc-Line style 3/4" hose, adjustable arm

4401-0516

MAGNETIC BASE COOLANT HOSE ASSEMBLY

- 110 lbs magnetic pull.
- Two 1/4" dia. flexible coolant hoses.
- Either one can be shut off.
- On/ Off switchable magnetic base.



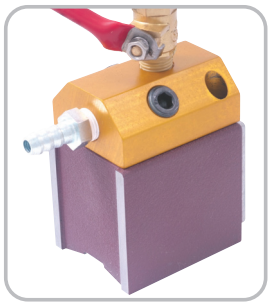
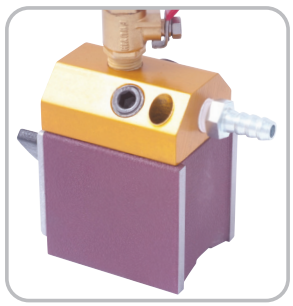
8401-0048

VERTEX® SINGLE STEEL HOSE MAGNETIC BASE COOLANT ASSEMBLY

- Magnetic power pull: 150 lbs.
- Steel flexable hose with metal nozzle.
- Shut off valve.
- Hose length (from valve to tip of nozzle):12.5"
- On/Off switchable magnetic base.

MADE IN TAIWAN

8401-0065


MULTI FUNCTION MIST COOLANT SYSTEMS

- Air adjustment valve.
- Fluid control allows for right mixture for every job.
- Flexable tube (18")puts mist right where it is needed.
- For boring, milling, grinding or drilling operations.
- Fits on a standard mag base's vertical post, supplied with set screw to hold location.




WITH MAG. BASE
8401-0195

MIST COOLANT
8401-0200

MIST COOLANT SPRAYER ON MAGNETIC BASE



- Air adjustment valve.
- Fluid control allows for right mixture for every job.
- Flexable Loc-Line style tube (17").
- For boring, milling, grinding or drilling operations.
- Magnetic base dimension: 2-5/16"L x 2"W x 2"H
- Magnetic Holding Power: 150 lbs

WITH MAG. BASE
8401-0196

VERTEX® MAGNETIC BASE COOLANT HOSE ASSEMBLIES

- **Made in Taiwan** – High Quality & Exceptional Value: Precision manufacturing delivers consistent accuracy and durability comparable to premium brands at a more competitive price.
- **Powerful Magnetic Base Holds Securely** – 176 lb. magnetic pull keeps unit firmly mounted to machines, worktables, or metal surfaces for dependable positioning. Base: 2.36 L x 1.97 W x 2.17" H
- **On/Off Magnetic Switch** – Quickly engage or release the base for fast relocation and easy setup changes.
- **Flexible Adjustable Hose Arms** – Modular coolant hoses bend and stay in position, directing coolant or air exactly where needed.
- **Multi-Hose Design for Wider Coverage** – Multiple nozzles allow one unit to cool several cutting areas or provide broader spray coverage.
- **Heavy-Duty Construction** – Durable magnetic base and industrial-grade hose components built for shop use.



MADE IN TAIWAN

3 Coolant Hose Assembly (Hose Length: 13")
8401-0059
Weight: 3.5 Lbs.

2 Steel Nozzle Hose Assembly (Hose Length: 13")
8401-0058
Weight: 4.5 Lbs.

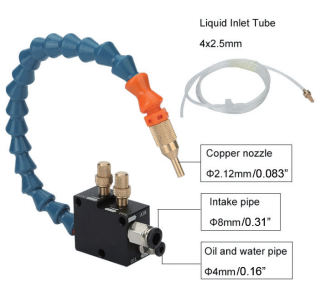


MIST COOLANT SPRAYER

Flexible nozzle hose to reach any angle. Easy to connect line via push-in connections. Durable copper knobs for flow control, knurled surfaces for easy grip. Line filter and backflow preventor.

- Economy coolant spray unit for a variety of applications using water or coolants.
- Three 5mm mounting holes in the base provide flexibility in locating the unit whose overall width is 46mm and height 40mm.
- The 31cm (12.2") spray hose is easily shaped to point your nozzle at the precise location needed.
- Brass nozzle and knobs prevent rust and surfaces are knurled for easy control.
- The fluid hose included has a 2.5mm internal diameter, a backflow preventer and a filter.
- Air and coolant intakes use a push-type attachment. The air intake is 8mm and the liquid intake is 4mm.
- Use with standard air compressor (not included) with pressure range of 30 - 150 PSI.
- The system is suitable for use with any type of soluble coolant or oil (non-corrosive).
- Use with fluids that have a viscosity at 68 cSt or less.

8401-0199





ADJUSTABLE COOLANT HOSE SYSTEM

ADJUSTABLE COOLANT HOSE SYSTEM - Loc-Line style - Interchangeable

* Limited Supply

1/4" MALE NPT VALVE KIT
5 pc/pack

8401-0209



1/4" I.D. COOLANT HOSE KIT, 7 PC

8401-0251

INCLUDES:
1/16, 1/8 & 1/4" Nozzle
and 1/8 & 1/4" NPT Connector
6" x 2pc Coolant Hose



1/2" I.D. COOLANT HOSE KIT, 7 PC

8401-0502

INCLUDES:
1/4, 3/8 & 1/2" Nozzle
and 1/2 & 3/8" NPT Connector
6" x 2pc Coolant Hose

NPT 1/4" CONNECTOR KIT
5 pc/pack
For 1/4" hose

8401-0207

NPT 3/8" CONNECTOR KIT
5 pc/pack
For 1/2" hose

8401-0227*

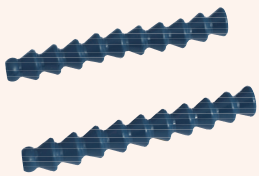


6" LENGTH, 1/4 COOLANT HOSE SET
2 pc/pack

8401-0211

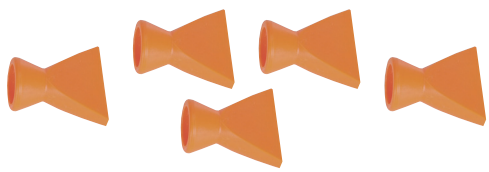
6" LENGTH, 1/2 COOLANT HOSE KIT
5 pc/pack

8401-0231*



5 PC FLARING NOZZLE KITS

- Interchangeable with LocLine.
- For flexable hose system.

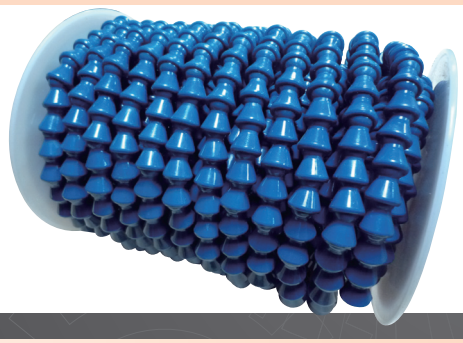


1" Flare, 1/4"I.D.
8401-0205

1-1/2" Flare, 1/2" I.D.
8401-0225

50FT BULK COOLANT HOSE COIL
-Loc-Line style - Interchangeable

1/4 INCH
8401-0220



VERTEX® IN-LINE 13" LONG COOLANT HOSE & VALVE KITS

MADE IN TAIWAN

- **Made in Taiwan** – High Quality & Exceptional Value: Precision manufacturing delivers consistent accuracy and durability comparable to premium brands at a more competitive price
- **Fully Adjustable Coolant Direction** – Modular hose segments bend and hold position, allowing precise coolant flow exactly where needed.
- **Built-In Shut-Off Valve** – Easy on/off flow control helps reduce coolant waste and improves operator convenience.
- **Chemical & Coolant Resistant Construction** – Designed to withstand common machine shop coolants, oils, and fluids for long service life.
- **Improves Tool Life & Surface Finish** – Delivers coolant directly to the cutting zone to reduce heat and flush chips away.
- **Complete Ready-to-Use Coolant Kit** – Includes flexible segmented hose, acid-resistant shut-off valve, and round nozzle for quick installation on machines.



1/4" KIT INCLUDES:
- 13" Length Hose
- Acid Resistant 1/4" Male NPT Valve
- 1/4" Round Nozzle

1/4" X 13" KIT
8401-0214



1/2" KIT INCLUDES:
- 13" Length Hose
- Acid Resistant 1/2" Male NPT Valve
- 1/2" Round Nozzle

1/2" X 13" KIT
8401-0216

COOLANT TESTER-REFRACTOMETERS

- Accurately measures coolant concentration.
- Includes instructions.
- Optimize coolant use and tool life.
- Just a few drops needed for test.

Item#	Typical Coolant	Solution Measuring Range
8010-0018	Water Sol. or Synthetics	0~20%
8010-0019	Synthetics	0~15%
8010-0020	Water Soluble	0~30%



VERTEX® 3 GALLON COOLANT PUMP KIT

- Portable and easy to use coolant device.
- Can be used on drilling, milling machines, small lathes and other equipment that needs cooling.
- Power supply: 110V/1 phase, 1/8 HP.
- Dimension: 15.5 L x10.5 W x 13" H.
- Weight: 18 lbs

MADE IN TAIWAN

3 Gallon Kit
3012-8110





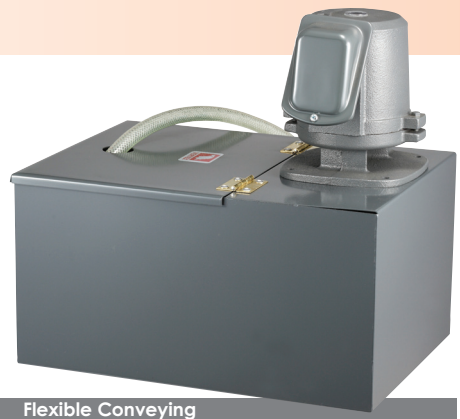
VERTEX® 4.2 & 9-1/4 GALLON COOLANT PUMP KITS

- Portable and easy to use coolant device.
- Can be used on drilling, milling machines, small lathes and other equipment that needs cooling.
- Power supply: 110v/ 1 phase, 1/4 HP.
- ***KIT INCLUDES:***
  -Coolant Pump
  -Coolant Tank
  -Connecting Cable (with plug for 1 ph)
  -Coolant Hose kit with Magnetic Base
  -Flexible Conveying Hose
  -Drain Hose
  -Tool Kits
  -ON/OFF switch (for 1 ph)



MADE IN TAIWAN





Item#	Coolant Pump (HP x Height)	Tank Size (L x W x H)	Volume of Coolant Tank	Connecting Cable	Coolant Hose Kit with Magnetic Base (O x L)	Flexible Conveying Hose (O x L)	Drain Hose (O x L)	Weight
3012-8115	1/8HP x 6"	15.75 x 9.85 x 7.25"	16 liters	7.87"	1/4 x 13"	3/8 x 6"	1 x 11.81"	23.8 lbs.
3012-8118*	1/4HP x 7"	19.68 x 13.75 x 7.87"	35 liters	7.87"	3/8 x 14.17"	3/8 x 6"	1-1/4 x 15.74"	72.75 lbs.

* Limited Supply

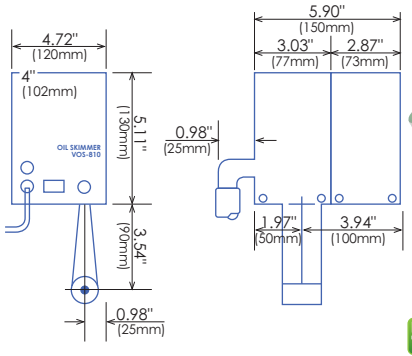
VERTEX® BELT TYPE OIL SKIMMER 110V/220V

- **Made in Taiwan** – High Quality & Exceptional Value: Precision manufacturing delivers consistent accuracy and durability comparable to premium brands at a more competitive price
- **Removes Floating Tramp Oil Efficiently** – Belt-driven skimming system continuously lifts surface oil from coolant tanks, helping extend coolant life and improve machine performance.
- **Improves Coolant Quality** – Reduces contamination, foul odors, smoke, and bacteria caused by floating oil buildup.
- **Low Operating Cost** – Reusable belt system requires no disposable filters or absorbent materials, reducing maintenance expense.
- **Compact & Lightweight Design** – Easy to mount on machine sumps, coolant tanks, and reservoirs where space is limited.
- **Durable Oil-Resistant Belt** – Special belt material offers excellent durability, heat resistance, and chemical resistance for long service life.
- **Simple Plug-In Operation** – Easy to install and operate with AC 110V / 220V power compatibility.
- **Helps Extend Tool & Coolant Life** – Cleaner coolant improves cutting conditions and can reduce tool wear.

8401-0245
Weight: 7 Lbs.

REMOVES FLOATING TRAMP OIL FROM MACHINE COOLANTS!









MADE IN TAIWAN

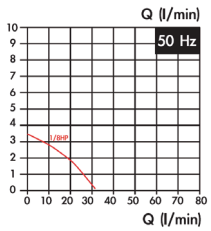
SPECIFICATIONS — Unit: Inch/mm

Skim Capacity	Dimension L	Dimension W	Dimension H	Hose Size (Dia. x Length)	Belt Dimension Width	Belt Dimension Length
4 l/hour	5.91/150	4.72/120	5.43/138	0.87/22 x 23.62/600	1.54/39	21.65/550

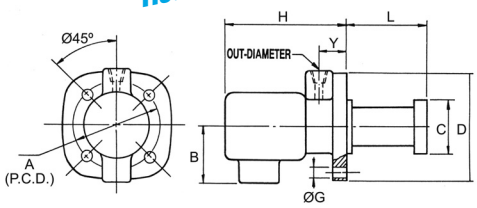
VERTEX® COOLANT PUMPS

VERTEX® 1/8 HP UNDER WATER COOLANT PUMP - 110V/1 PHASE

- This pump is high quality with anti-rust treatment, manufactured with high grade materials and inspected in five steps by a precision electronic device.



110V/1 PHASE



CE CERTIFIED

MADE IN TAIWAN

3012-8122
Weight: 13 Lbs.

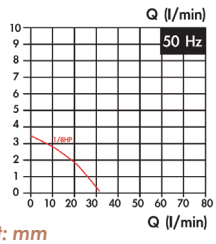


Unit: mm

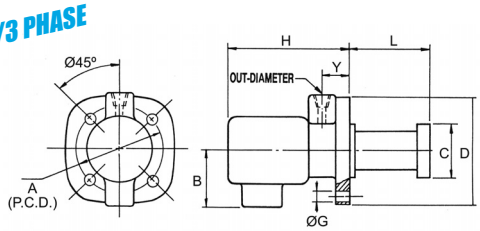
Power	Length (L)	Pumping Water 1mmin	Pumping Water 2mmin	A	B	C	D	G	H	Y	Out Diameter
1/8HP	150	27-28 L	25-26 L	128±0.2	105	Ø90	Ø150	Ø8	160	19	PT 3/8"

VERTEX® 1/8 HP UNDER WATER COOLANT PUMP - 380V/3 PHASE

- **Made in Taiwan** – High Quality & Exceptional Value: Precision manufacturing delivers consistent accuracy and durability comparable to premium brands at a more competitive prices.
- **Immersion Cooling Pump Design** – Mounts directly on coolant tanks or reservoirs with the motor above fluid level and pump section submerged for efficient coolant transfer.
- **Steady Coolant Flow Performance** – Delivers 27–28 L/min at 1 meter and 25–26 L/min at 2 meters for dependable machine tool cooling.
- **Improves Tool Life & Surface Finish** – Consistent coolant flow helps reduce cutting heat, flush chips, and improve machining accuracy.
- **Heavy-Duty Anti-Rust Construction** – Treated housing resists corrosion in wet machine shop environments for longer service life.
- **High-Grade Materials** – Built with quality components for dependable daily industrial use.
- **Precision Inspected** – Factory checked in multiple inspection stages for reliable operation.
- **Designed for 380V 3-phase** industrial power systems
- **Verify facility voltage** compatibility before ordering
- Commonly used on industrial machinery and coolant circulation systems



380V/3 PHASE



CE CERTIFIED

MADE IN TAIWAN

3012-8123
Weight: 13 Lbs.

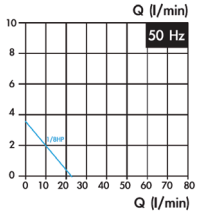


Unit: mm

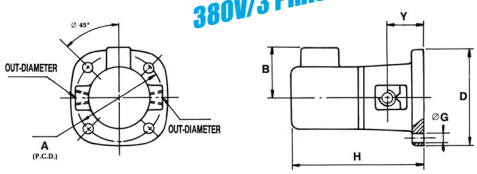
Power	Length (L)	Pumping Water 1mmin	Pumping Water 2mmin	A	B	C	D	G	H	Y	Out Diameter
1/8HP	150	27-28 L	25-26 L	128±0.2	105	Ø90	Ø150	Ø8	160	19	PT 3/8"

VERTEX® 1/4 HP SELF-PRIMING COOLANT PUMP - 380V/3 PHASE

- **Made in Taiwan** – High Quality & Exceptional Value: Precision manufacturing delivers consistent accuracy and durability comparable to premium brands at a more competitive price
- **Self-Priming Design** – Automatically draws coolant from tank or sump without manual priming, making startup fast and convenient.
- **High Flow Performance** – Delivers 73–75 L/min at 1 meter and 70–71 L/min at 2 meters, ideal for demanding coolant circulation needs.
- **Improves Tool Life & Surface Finish** – Provides steady coolant flow to reduce cutting heat, flush chips, and improve machining results.
- **Heavy-Duty Cast Construction** – Rugged body with anti-rust treatment built for long service life in industrial environments.
- **Reliable Industrial Motor** – 1/4 HP motor designed for continuous machine tool operation.
- **Designed for 380V 3-phase** industrial power systems
- **Verify facility voltage** compatibility before ordering
- Commonly used on industrial machinery and coolant circulation systems



380V/3 PHASE



MADE IN TAIWAN

CE CERTIFIED

3012-8129
Weight: 26 Lbs.

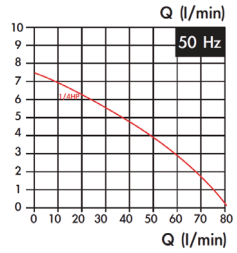


Unit: mm

Power	Pumping Water 1m/min	Pumping Water 2m/min	A	B	D	G	H	Y	In Diameter	Out Diameter
1/4HP	73-75 L	70-71 L	185±0.2	125	225	Ø8	240	65±0.5	PT 1/2"	PT 1/2"

VERTEX® 1/4 HP UNDER WATER COOLANT PUMP - 110V/1 PHASE

- This pump is high quality with anti-rust treatment, manufactured with high grade materials and inspected in five steps by a precision electronic device.

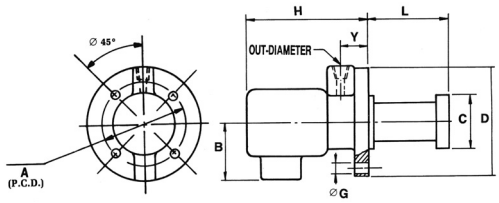


CE CERTIFIED

MADE IN TAIWAN

3012-8125
Weight: 25 Lbs.

110V/1 PHASE





Unit: mm

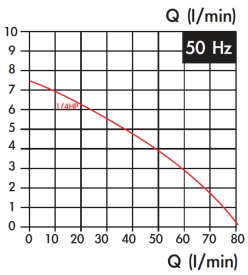
Power	Length (L)	Pumping Water 1mmin	Pumping Water 2mmin	A	B	C	D	G	H	Y	Out Diameter
1/4HP	200	74-76 L	71-72 L	158±0.2	125	Ø122	Ø180	Ø8	180	26	PT 1/2"

VERTEX® 1/4 HP UNDER WATER COOLANT PUMP - 380V/3 PHASE

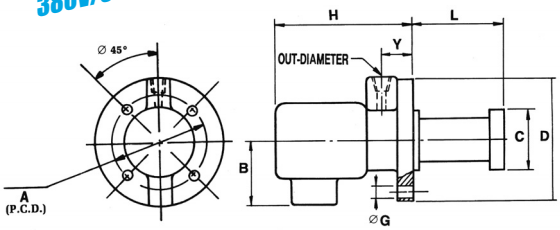
- **Made in Taiwan** – High Quality & Exceptional Value: Precision manufacturing delivers consistent accuracy and durability comparable to premium brands at a more competitive price
- **High-Flow Immersion Pump Design** – Submerged pump section delivers strong coolant circulation directly from tank to machine for dependable performance.
- **Excellent Coolant Capacity** – Pumps 74–76 L/min at 1 meter and 71–72 L/min at 2 meters, ideal for higher-demand machine tools.
- **Improves Tool Life & Surface Finish** – Steady coolant flow reduces cutting heat, flushes chips, and supports more accurate machining.
- **Heavy-Duty Anti-Rust Construction** – Built with corrosion-resistant treatment for long service life in wet coolant environments.
- **High-Grade Industrial Materials** – Precision manufactured for continuous machine shop operation and reliability.
- **Designed for 380V 3-phase** industrial power systems
- **Verify facility voltage** compatibility before ordering
- Commonly used on industrial machinery and coolant circulation systems

CE CERTIFIED

3012-8126
Weight: 25 Lbs.



380V/3 PHASE



MADE IN TAIWAN



Unit: mm

Power	Length (L)	Pumping Water 1mmin	Pumping Water 2mmin	A	B	C	D	G	H	Y	Out Diameter
1/4HP	200	74-76 L	71-72 L	158±0.2	125	Ø122	Ø180	Ø8	180	26	PT 1/2"

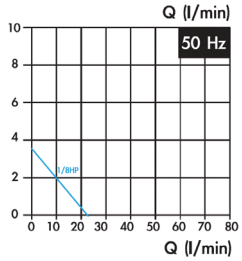
VERTEX® 1/8 HP SELF PRIMING COOLANT PUMP -220V/3 PHASE

- This pump is high quality with anti-rust treatment, manufactured with high grade materials and inspected in five steps by a precision electronic device.

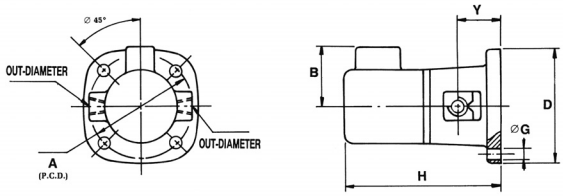
CE CERTIFIED

3012-8128
Weight: 13 Lbs.

MADE IN TAIWAN



220V/3 PHASE





Unit: mm

Power	Pumping Water 1mmin	Pumping Water 2mmin	A	B	D	G	H	Y	In Diameter	Out Diameter
1/8HP	26-28 L	24-25 L	140±0.2	105	165	Ø8	195	50±0.5	PT 3/8"	PT 3/8"

1/4" ECONOMY AIR DIE GRINDER

SPECIFICATIONS	
Speed (RPM)	22,000
Collet chuck	1/4"
Air inlet (NPT)	1/4"
Hose size (ID)	3/8"
Air Consumption	4 CFM
Air-pressure (PSI)	90
Overall Length	7-3/8"

7600-0089



1/4" HEAVY DUTY AIR DIE GRINDER

HHIP PRO-SERIES

- Heavy Duty.
- Built in Safety Lever to meet OSHA requirements.
- Variable speed throttle for positive speed control.
- Ball bearing construction for long tool life.
- Rear exhaust.

SPECIFICATIONS	
Speed (RPM)	22,000
Collet chuck	1/4"
Air inlet (NPT)	1/4"
Hose size (ID)	3/8"
Air-pressure (PSI)	90

7600-0911

MADE IN TAIWAN



Z-Limit ERGONOMIC LOW NOISE 1/4" AIR DIE GRINDER

- Rubber molded cushion grip
- Air regulator on top
- Safety throttle lever
- Rear exhaust with silencer
- 360 degree swivel air inlet
- Low noise 79 dB(A)
- Free Speed: 20,000 RPM
- Air Inlet: 1/4" NPT
- Air Pressure: 90 PSI
- Air Consumption: 4 CFM
- Overall Length: 7-3/8"
- Hose Size: 3/8"
- Weight: 1.5 lbs

MADE IN TAIWAN

7609-0903



Z-Limit ULTRA-SERIES

VERTEX® 1/8" MINI AIR DIE GRINDER

- Pen type is ideal for access to confined areas
- Operates at 54,000 RPM at 90 PSI
- Includes 1/8" collet, wrenches and quick connect coupler



MADE IN TAIWAN

SPECIFICATIONS	
Free Speed (RPM)	54,000
Air Inlet (NPT)	1/4"
Collet chuck	1/8"
Air pressure (PSI)	90
Length	5-1/4"
Weight	1/4 lbs

7600-0088

SUPPLIED WITH WATER/OIL SEPERATOR

Z-Limit ERGONOMIC LOW NOISE 1/4" ANGLE AIR DIE GRINDER

Z-Limit ULTRA-SERIES

- Rubber molded cushion grip
- Air regulator on top
- Safety throttle lever
- Rear exhaust with silencer
- 360 degree swivel air inlet
- Low noise 77 dB(A)
- Free Speed: 20,000 RPM
- Collet Size: 1/4"
- Air Inlet: 1/4" NPT
- Hose Size: 3/8"
- Air Pressure: 90 PSI
- Air Consumption: 4 CFM
- Overall Length: 6-11/16"
- Weight: 1.1 lbs

7609-0904

MADE IN TAIWAN



1/2" DRIVE AIR IMPACT WRENCH



- Bolt capacity.
- Maximum torque: 250ft/lbs.
- 90 PSI air pressure.
- 5 CFM air consumption.
- 7000 RPM speed.

7600-0942

ABRASIVE CUT-OFF WHEEL MANDRELS

CAUTION: Never exceed maximum RPM rating. Always us a guard and comply with ANSI B7.1.

2 PC ARBOR SET
3900-6376
1/4 & 3/8"







Item#	Arbor	Shank
3900-6250	1/4"	1/4"
3900-6375	3/8"	1/4"

REPLACEMENT COLLET

- Fits all air tools with same collet size



Item#	Chuck Size	Fits Air Tool
7600-1001	1/8"	1/4"

AIR BLOW GUN & SET

SET INCLUDES:
1 - Blow gun with rubber tip
3 - Safety extension tubes
1 - Male tip

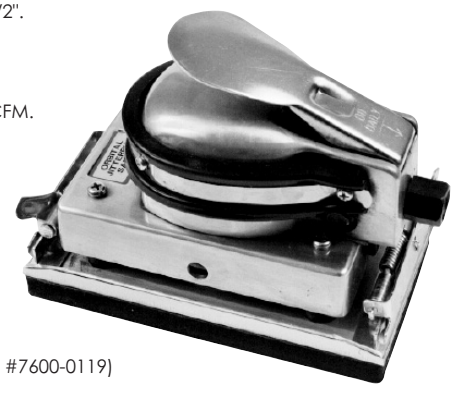
BLOW GUN ONLY
7600-0169



5 PC SET
7600-0170

AIR SANDER - Orbital Jitterbug Type

- Constant orbital stroke for fine finishing.
- Dynamic counter weight for low vibration sanding.
- Automatic throttle release lever with positive stop action.
- Pad Size: 3-2/3" x 6-1/2".
- Speed: 7,000 RPM
- Air Inlet: 1/4" NPT.
- Hose Size: 3/8".
- Air Consumption: 5 CFM.
- Air Pressure: 90 PSI.



7600-0118

Replacement Pad(Item #7600-0119)

NPT SINTERED BRONZE EXHAUST MUFFLER

- Exhaust & Intake mufflers
- Metal body, nickel plated Breather Vent
- Temperature: -20~70°C



Item#	NPT Thread	Hex Size (mm)	Overall length
8401-0328	1/8	12	0.45"

NPT SINTERED BRONZE EXHAUST MUFFLERS

- Max. Air Pressure: 0-10 kgf/cm^2
- Metal body, nickel plated
- Temperature: -20~70°C
- Decibel Rating: 75.000

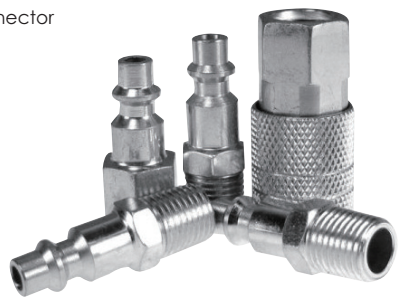


Item#	NPT Thread	Hex Size (mm)	Overall length
8401-0320	1/8	12	0.94"
8401-0322*	3/8	18	1.47"
8401-0323*	1/2	24	1.72"

* Limited Supply

5 PC 1/4" QUICK - COUPLER SET

SET INCLUDES:
1 - NTP female quick connector
1 - NPT female/male stud
3 - Male/male stud



7600-0171

4 WAY HAND OPERATED VALVES-ROTARY DISC TYPE

- Body made of Alumium Alloy
- Max. Working Pressure: 150 psi
- Number of Positions: 3
- Actuator Type: Lever/Detent



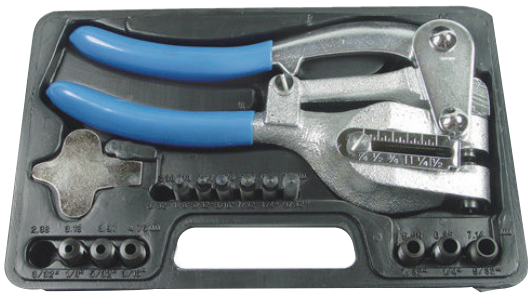
Item#	Inlet Size (Inch)	CV Rating
8401-0255*	3/8	1.83
8401-0256	1/2	1.83

* Limited Supply

17 PC POWER PUNCH KIT

- Complete with 7 sets of punches and dies.
- Common sizes: 3/32", 1/8", 5/32", 3/16", 7/32", 1/4", 9/32".
- Punches and dies hardened to HRC 50~52.
- Pierces up to 16-gage metals. (steel, aluminum, brass, copper, plastic, etc.).
- Curved handles for a natural, balanced grip.
- Supplied with plastic carry case.

7070-0016



HEAVY DUTY TAPE MEASURE

- Made of heavy duty sheet metal steel.
- One inch wide blade.
- Hold up to 8' no break.
- Shows fraction by 8ths.
- Durable rubber outfit for easy grip





FRACTION SCALE

1" x 25 FT.
7020-0025

VERTEX® HEAVY DUTY DEMAGNETIZER

- Demagnetizes general parts, tools such as dies, cutters and punches.
- Operates on 115V AC , I Phase, 2A Current with on/off switch.
- **Automatic Temperature Protection: Power cuts off when reaches certain setting point. It will restart once it cools down (cycle time 10-20min).**
- Table Size: 7.1" W x 5.0" L x 3.5" H
- New Weight: 9 lbs.





MADE IN TAIWAN





3401-0601

Dasqua® DIGITAL METRIC LASER TAPE MEASURES



- Measuring Accuracy: ±3mm
- Laser Class: 2
- Laser Type: 620-690nm, <lmW
- Operating Temperature: 0-40°C
- Storage Temperature: -20-70°C
- Display Type: OLED
- Multi-line Display: 2 lines
- Display Color: white on black
- Battery Life: 2000 measurements
- Battery Type: 3.7V Li-ion
- Laser Auto Off: After 30 seconds
- Power Auto Off: After 90 seconds
- 80.4mm x 46.4mm(with buckle)
- Tape width 2.5cm
- USB charging capability

2 in 1: tape measure, laser measure

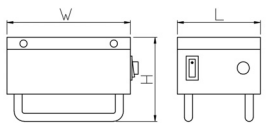
Limited Supply!

Item#	Measuring Range	Accuracy	Type
1804-1055	0.05-30m/5m	±3mm	2in1

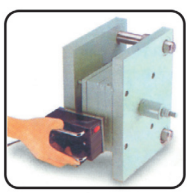
VERTEX® HANDHELD MINI DEMAGNETIZER

- **Made in Taiwan** – High Quality & Exceptional Value: Precision manufacturing delivers consistent accuracy and durability comparable to premium brands at a more competitive price point.
- **One-Way Demagnetizing Operation** – Simple pass-through design quickly removes residual magnetism from parts and tools.
- **Compact & Portable Design** – Ideal for bench-top use and easy handling in tight workspaces.
- **Dual Voltage Capability (AC 110V / 220V)** – Flexible operation for different shop environments.
- **Efficient Working Surface** – Provides consistent demagnetizing across the full contact area.
- **High Duty Cycle (90%)** – Supports continuous use in production and maintenance settings.

3401-0603
Weight: 4.4 Lbs.









MADE IN TAIWAN

SPECIFICATIONS

Input Voltage	Current	Duty Cycle	Dimension W x L x H
110V/220V	0.9A/0.3A	90%	4.84x3.27x3.3"

ITW DYKEM® BRITE-MARK MARKERS

- Makes permanent marks on metal, rubber, plastic, glass, concrete, leather, stone, wood, vinyl and more
- Valve action mechanism prevents paint in barrel from drying when cap is left off
- Heavy-duty aluminum barrel retains its shape
- Felt tips are replaceable to assure complete use of paint in each marker
- Drying time 25-35 seconds



For Marking On Any Surface!
REGULAR (Medium) LINE

Item#	Color	Case Qty
8030-8401	Blue	48
8030-8402	Black	48
8030-8403	White	48
8030-8404	Yellow	48
8030-8405	Orange	48
8030-8406	Red	48
8030-8407	Green	48
8030-8408	Silver	48
8030-8409	Gold	48

ITW DYKEM® HI-SPOT BLUE

Hi-Spot is an intensely blue, soft uniform paste that spreads easily and evenly to show high spots on bearings, A thin coating may be left on the surface day in and day out, and will not dry. The film remains pliable and transferable and in condition for months.

- Non-drying
- Non-hardening
- Transfers from one surface to another



.55 OZ. TUBE
8030-8355

7 WAY MIG WELDING PLIER

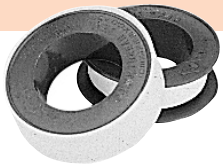
- Small serrated hole for mig tips.
- Flat surfaces for light hammering.
- Wire cutter for trimming mig wire.
- Spring loaded handle with heavy insulated grip for comfort.
- Needle nose grip wire for pulling
- Large serrated hole for nozzles.



8080-0026

TEFLON TAPE

- Helps seal pipe threads to reduce leaks.
- PTFE material wraps smoothly for quick, easy installation.
- Large 520 ft. roll is ideal for shop and industrial use.



1/2" x 520 FT.
8070-0003

PRICED AND SOLD BY 12PC/PACK

ITW DYKEM® HIGH PURITY MARKER

- DYKEM® High Purity Markers are your answer for marking on stainless steel or any surface where degradation, contamination or other adverse effects are a concern. The formulas contain trace amounts of halogens, low melting metals and are low in chlorides.
- Permanent, valve-action mechanism prevents paint in barrel from drying when cap is left off
- Drying time: 45 seconds - 1 minute
- **APPLICATIONS** – Stainless steel, aerospace, ship/boat/marine, oil & gas, power & utilities, nuclear facilities.
- **MEETS** – GE specification D50TF8 and D50YP12, PWA 36700 rev. D, U.S. Department of Energy spec RDT-F7-3T,5.1



Item#	Color	Line
8030-8434	Blue	Medium Tip

ITW DYKEM® HIGH TEMP MARKER

- Specifically formulated for marking surfaces that are exposed to extreme high temperature environments. Marks should be made at room temperature and can be applied to almost any non-porous surface such as metal, glass, and ceramic. When marking on ceramics, the marks will become permanently fused to the surface after heat is applied. Some colors can withstand temperatures up to 2000°F(1093°C).
- Fiber tip paint marker with valve-action
- Valve-action mechanism prevents paint in barrel from drying when cap is left off
- Threaded barrel allows marker to be screwed into a jig or apparatus
- Drying time: 45 seconds - 1 minute
- **APPLICATIONS:** Components exposed to high temperatures, Ideal for marking glass, metal and ceramics, Electronics industry.



Item#	Color	Line
8030-8450	Black	Medium Tip

SHOP APRON

- 14 oz. heavy denim apron
- 1 two part big pocket



28" Wide x 36" Long
8070-7004

METAL SCRIBER

- Tempered and heat treated steel all over body, handle, and sharp tips.
- Long length handy for hard to reach holes.
- Knurled body for tight grip.

OAL: 9.50"

7600-4302



SCRIBER WITH CLIP

- For marking or engraving on hard metal, glass, plastic, ceramic, jewelry, etc.
- Sharp tungsten steel tip.
- Convenient pocket clip and covered cap.
- Knurled body grip.

7600-0044



7 PC COMBINATION DRIVE PIN PUNCH SET

- Tool steel heat treated.
- Knurled body.
- Complete with vinyl pouch.

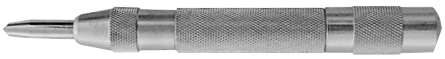


SET INCLUDES:

Solid/Parallel Pin Punch 3/16"
Taper/Starter Drift Punch 5mm
Center Punch Square 1/8"
Center Punch Round 3/16"
Center Punch Hexagonal 5/32" (4" long)
Auto Center Punch 5"
Prick Punch 2.5mm

7 PC Set
8606-4100

5" AUTO CENTER PUNCH



- No hammer required.
- Double spring loaded barrel.
- Special hardened alloy steel tip for instant marking.
- Knurled body.

8070-0482

6" HEAVY DUTY AUTO CENTER PUNCH

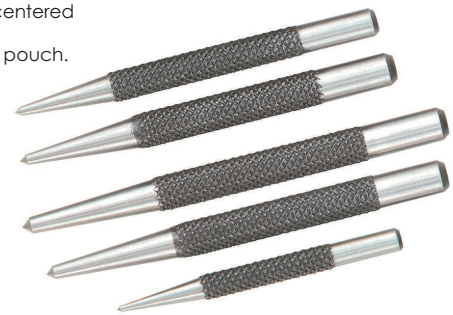
- HHIP heavy-duty center punch creates a starting point for drilling by making a small dent in the work piece, ensuring accurate hole placement or for marking starting points in riveting, chiseling, metalworking alignment, woodworking, scoring, or engraving.
- No hammer required.
- Double spring loaded barrel.
- Special hardened alloy steel tip for instant marking.
- Knurled body and black oxidized.

8070-0484



5 PC CENTER PUNCH SET
- ROUND HEAD

- Manufactured from tool steel, hardened and tempered.
- Knurled body.
- Tips are accurately centered for exact marking.
- Complete with vinyl pouch.
- Includes: Nos. 1-5.



No.	Tip Size (Inch)	OAL (Inch)	Body Dia. (Inch)
1	1/16	3	1/4
2	5/64	3-1/2	1/4
3	3/32	4	1/4
4	1/8	4	3/8
5	9/64	4	3/8

5 PC Set
8606-4105

AUTO CENTER PUNCH & CARBIDE TIPPED SCRIBER SET

5" Long Auto Center Punch

- Made of tool steel and hardened.
- No hammer required, simply hold punch in upright position and press handle down for a perfect center mark.
- Depth of mark is conveniently controlled by adjusting cap screw.
- Point can be resharpened.
- Double spring loaded barrel.
- Knurled body.

6" Long Carbide Tipped Scriber

- For marking or engraving on hard metal, glass, plastic, ceramic, jewelry, etc.
- Carbide tipped point for long lasting use.
- With convenient pocket clip.
- Knurled body.

2 PC Set
8606-4112



TRANSFER PUNCH SETS

- Undersize .0025" .
- Heat treated tempered tool steel for longer life.
- Black oxide finish.
- Used for transferring of threaded, drilled and tapped holes.

28 PC SET
Range: 3/32-1/2" x 64ths
8600-0041

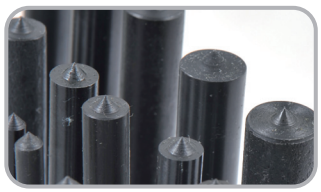


33 PC SET
Range: 1/2-1" x 64ths
8600-0411



Item#	No. of Pieces	Range
8600-0041	28	3/32-1/2" x 64ths & 17/32"
8600-0411	33	1/2-1" x 64ths
8600-0043	25	1-13mm x 0.5mm
8600-0044	26	A-Z
8600-0045	60	#1-60

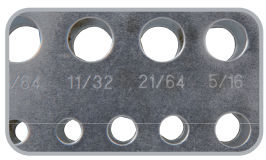


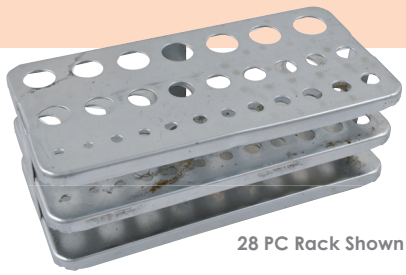


REPLACEMENT RACKS FOR TRANSFER PUNCH SETS

- **Rack only.**
- Metal rack with sizes marked.

Item#	Description
8600-0041R	28 PC Rack: 3/32-1/2" x 16ths
8600-0411R	33 PC Rack: 1/2-1" x 64ths





28 PC Rack Shown

61 PC TRANSFER PUNCH COMBO SET (3/32~1")

- Used for transferring threaded, drilled and tapped holes.
- Undersize .0025" .
- Heat treated tempered tool steel for longer life.
- Black oxide finish.
- 28pc Set Range: 3/32~1/2" by 64ths & 17/32"
- 33pc Set Range: 1/2~1" by 64ths

28PC & 33PC COMBO SET

BUY COMBO SET & SAVE!





61 PC SET
Range: 3/32~1"
8600-0050

53 PC INCH/METRIC TRANSFER PUNCH COMBO SET

- Used for transferring threaded, drilled and tapped holes.
- Undersize .0025" .
- Heat treated tempered tool steel for longer life.
- Black oxide finish.
- **28pc Set Range: 3/32~1/2" by 64ths & 17/32"**
- **25pc Set Range: 1~33mm by 0.5mm**

BUY COMBO SET & SAVE!

28PC & 25PC COMBO SET
Range: 3/32~1" & 1-33mm
8600-0054



OPTICAL PUNCH SETS

3 PC OPTICAL PUNCH SET

- This Optical Punch Set is indispensable when doing critical layout work. Just look down the magnifying lens and align the cross hairs with the mark on your workpiece. Replace the magnifier with the supplied punch and give it a tap.
- Punch set Includes 3 components a bull's eye and cross hair lens, a 120 degree made of tempered steel, a precisely manufactured of aluminum main body and a fitted case.

3 PC SET
8600-4120

Lens Magnifier Power: 9x
Punch Size: 3/8"
Pin Length: 1.85"



Pro-Series 6 PC OPTICAL CENTER PUNCH SET

- This Optical Punch Set is indispensable when doing critical layout work. Just look down the magnifying lens and align the cross hairs or center of circle with the mark on your workpiece. Replace the magnifier with the supplied hardened tool steel punch and give it a tap.
- **Punch set Includes:** a bull's eye with cross hair lens, a bull's eye with center dot and circle lens, a 60 degree punch, a 120 degree punch and a precisely manufactured of aluminum main body and a fitted case.

Lens Magnifier Power: 9x
Punch Size: 3/8"
Pin Length: 1.85"
Main Body Diameter: 1.9"





60° & 120°





Cross Hair & Bull's Eye





6 PC SET
8600-4118



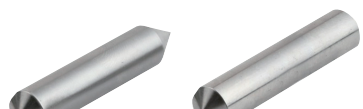
7 PC OPTICAL PUNCH COMBO KIT

- **Punch set includes 7 components:** a bullseye lens, a cross hair lens, a 150 degree center punch made of tempered steel, a 60 degree center punch made of tempered steel, a precisely manufactured aluminum main body, a auto center punch 6" long double spring loaded barrel and a fitted storage case.
- Punch size is 3/8".
- Pin length is 1.85".
- Acrylic lens magnifier power is 9x.
- Allows you to punch layout points within .002" of location easily.
- Even the inexperienced can punch accurate holes every time with this set.
- It is indispensable when doing critical layout work.
- It is also ideal for metalworking, woodworking, jewelry making, and other precision crafts.
- Just look down the magnifying lens and align the cross hairs with the mark on your work piece.
- Replace the magnifier with the supplied punch and give it a tap.
- The cork bottom helps to provide stability and grip. It reduces slippage and ensures that the center punch remains in position while marking the material accurately.

7 PC Combo Kit
8600-4119

Lens Magnifier Power: 9x
Punch Size: 3/8"
Pin Length: 1.85"





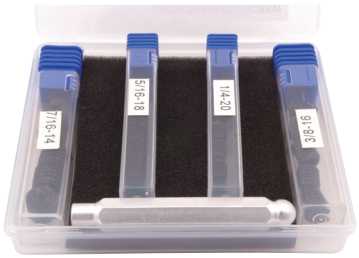




25 PC TRANSFER SCREW COMBO SETS

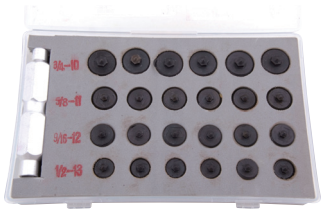
- Convinent & economic combination of four sizes often used together.
- More accurate than transfer punches. The fastest and most precise method of transferring threaded holes to mating parts. Great for tool and die work and in lay outs.
- Solid handle.
- Plastic storage case.

SET INCLUDES:
Handle & 24 Screws
(6 pc each size)



3601-0511 Shown





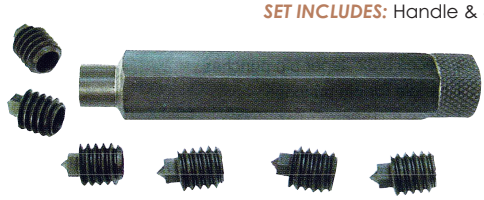
3601-0513 Shown

Item#	Set Thread
3601-0511	1/4-20, 5/16-18, 3/8-16, 7/16-14
3601-0513	1/2-13, 5/8-11, 3/4-10, 9/16-12
3601-0515	10-24, 8-32, 6-32, 4-40
3601-0517	M3x0.5, M4x0.7, M5x0.8, M6x1.0
3601-0519	M6x1.0, M8x1.25, M10x1.50, M12x1.75
3601-0521	M14x2.00, M16x2.00, M20x2.50, M24x3.00

7 PC TRANSFER SCREW SETS

- More accurate than transfer punches. The fastest and most precise method of transferring threaded holes to mating parts. Great for tool and die work and in lay outs.

SET INCLUDES: Handle & 6 Screws



Inch

Item#	Thread
3601-0004	4-40
3601-0006	6-32
3601-0008	8-32
3601-0010	10-24
3601-0011	10-32
3601-0012	12-24
3601-0250	1/4"-20
3601-0312	5/16-18
3601-0375	3/8"-16
3601-0376	3/8"-24
3601-0438	7/16"-14
3601-0500	1/2"-13
3601-0501	1/2"-20

MM

Item#	Thread
3601-1003	M3x0.5
3601-1004	M4x0.7
3601-1005	M5x0.8
3601-1006	M6x1.00
3601-1008	M8x1.25
3601-1010	M10x1.50
3601-1012	M12x1.75

108 PC BLIND HOLE SPOTTER SET

- Fast, easy way to locate opposite centers. When holes do not extend through material(such as holes for dowel pins, perforating punches, etc.) Blind-hole spotters get the job done simply. Correct size spotter can be used in threaded, drilled or reamed holes.



108 PC SET
8016-0108

INCLUDES:
1/8 to 21/32" by 32nds, 6pc each

36 PC DELUXE TRANSFER PUNCH SET

- 1/2" - 1" range in 1/64"
- 36 piece set, 3 master punches and 33 individually sized sleeves
- Each sleeve and punch is clearly laser etched with its size
- Simply select the sleeve for the size required, place it on one of the master punches for that range and it is ready to use
- Punches and sleeve ranges are color coded for easy pairing
- Heavy duty for larger applications
- Punch tips are hardened 48-55 HRC
- Master punches are 4-7/8" in length and sleeves are 1" in length
- 25% the weight of a conventional transfer punch set with this range (approximately 4.5 lbs.)
- Supplied in a fitted durable case

36 PC SET
Range: 1/2-1" x 64ths
8600-0060



4 PC TAPER/STARTER DRIFT PUNCH SET

- Manufactured from fine tool steel hardened and tempered.
- Knurled body.
- Complete with vinyl pouch.
- Includes: Nos. 1-4



No.	Tip Size (Inch)	OAL (Inch)	Body Dia. (Inch)
1	1/8	7	5/16
2	3/16	9	3/8
3	1/4	10	3/8
4	5/16	12	1/2

4 PC Set
8606-4104

8 PC DRIVE PIN PUNCH SET

- Tool steel heat treated, ground and polished.
- Complete with vinyl pouch.
- Knurled body.
- Overall length: 4"



8 PC Set
8600-4106

8 PC SET INCLUDES:
1/16~1/4" by 32nds & 5/16"

8 PC. DRIVE PIN PUNCH SET - With Stand

- Hardened and tempered steel construction.
- Precision ground tips for accurate pin driving.
- Knurled handles for better grip and control.
- Includes multiple punch sizes for common applications.
- ABS stand keeps punches organized and easy to store.



8 PC SET INCLUDES:
1/16, 3/32, 1/8, 5/32, 3/16, 7/32, 1/4 & 5/16"



8 PC Set
8606-4109

7 PC DISC CUTTER SET

- Punches are made of tool steel, case-hardened.
- The top and bottom plates are made of durable shock-resistant tool steel through hardened for long-wear.
- Round disc cutters let you cut perfectly round discs in up to 1mm(18 gauge) thick metal sheets.
- Slide metal between the plates and, with a mallet or heavy hammer of your choice, hit once for best results.



Block Size: 2.44x2.42x0.98"
Punches Length: 1.50"

INCH, 7 PC Set
8606-4127

7PC INCLUDES DISC SIZES:
1/4, 5/16, 3/8, 7/16, 1/2, 9/16 & 5/8"

8 PC BRASS DRIVE PIN PUNCH SET

- **Used in spark-free environments.**
- Made from brass hexagonal stock.
- Punch section centerless ground.
- 3-1/2" overall length.
- Punch tip diameters are undersized approximately 0.005" (0.127mm).
- **Set Includes:** 1/16(1.6mm), 3/32 (2.4mm), 1/8(3.2mm), 5/32(4.0mm), 3/16(4.8mm), 7/32(5.5mm), 1/4(6.4mm), 5/16"(8.0mm) & Plastic Pouch.



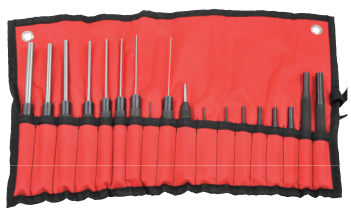


8 PC Set
8600-4110

18 PC. COMBINATION DRIVE PIN PUNCH SET

- Hardened and tempered tool steel for durability.
- Precision ground tips for accurate pin driving.
- Knurled handles provide a secure grip.
- Includes multiple punch sizes for versatile use.
- Comes with a vinyl pouch for easy storage.

18 PC Set
8606-4118



SET INCLUDES:
- **7pc. Drive Pin** 4" lengh (1/16, 3/32, 1/8, 5/32, 3/16, 7/32, 1/4")
- **2pc. Drive Pin** 6" length(5/16 & 3/8")
- **8pc. Long Drive Pin** 8" length (1/16, 3/32, 1/8, 5/32, 3/16, 1/4, 5/16 & 3/8").
- **1pc. Automatic Center Punch** 5" length.



BRASS HAMMERS FIBERGLASS HANDLE

- Non-sparking brass head helps improve safety in flammable work areas.
- Non-marring striking surface reduces damage to finished parts and components.
- Fiberglass handle provides strength and durability for everyday shop use.
- Polished brass head delivers solid striking power without excessive rebound.
- Ideal for metalworking, assembly, automotive, and maintenance applications.



Item#	Size (lbs.)	Head Dia.(In)	Overall Length
7080-0036	1	1-1/8	11-1/2"
7080-0037	1-1/2	1-1/4	12-1/2"

HAND DRILL & PIN VISE

- **Precision Manual Drilling Control** – Hand drill and pin vise design allows slow, controlled drilling to prevent breaking delicate micro-size drill bits.
- **Wide Capacity Range (0~3.2mm)** – Suitable for fine drilling tasks including jewelry making, model building, electronics, and hobby work. 3-3/4" length
- **Swivel Head for Stability** – Rotating swivel head enables downward pressure while turning, improving accuracy and reducing hand fatigue.
- **Multiple Collets Included** – Comes with interchangeable collets to securely hold a variety of small drill bit sizes.
- **Durable & Ergonomic Construction** – Nickel-plated body with knurled grip provides enhanced control, durability, and precision handling.



2001-0225



BELL PUNCH CENTER FINDER

- Bell punch easily locates and allows center punching of ends on round stock of up to 35mm
- Hardened to 48-52 HRC.
- A very handy tool if with you require precise drilling on round bar.

8606-7006



5 PC EXTRA-LONG DRIVE PIN PUNCH SET

- Black nitrate finish.
- Alloy steel hardened on both ends.
- Finger grip knurled body.
- Pin length: 3-1/2".
- Overall length: 8".
- Complete with vinyl pouch.

5 PC SET INCLUDES:
1/8, 3/16, 1/4, 5/16 & 3/8"

5 PC Set
8600-4103



8 PC EXTRA-LONG DRIVE PIN PUNCH SET

- Black nitrate finish.
- Tool steel hardened and tempered.
- Finger grip knurled body.
- Pin length: 3-1/2".
- Overall length: 8".
- Complete with vinyl pouch.
- Includes: Nos. 1-8



No.	Tip Size (Inch)	OAL (Inch)	Body Dia. (Inch)
1	1/16	8	3/8
2	3/32	8	3/8
3	1/8	8	3/8
4	5/32	8	3/8
5	3/16	8	1/2
6	1/4	8	1/2
7	5/16	8	1/2
8	3/8	8	1/2

8 PC Set
8606-4108

13 PC COMBINATION DRIVE PIN PUNCH SET

- Tool steel heat treated, ground and polished.
- Knurled body.
- Complete with vinyl pouch.

SET INCLUDES:
8 pc. 4" lengh 1/16~5/16" and 5 pc. 8" length 1/8, 3/16, 1/4, 5/16 & 3/8" in vinyl pouch.

13 PC Set
8606-4113



NYLON FACE DEAD BLOW HAMMERS

- Shot loaded interior produces a powerful driving force.
- Nylon material strike faces.
- Resistant to industrial chemicals.
- Non-marring, non-sparking.





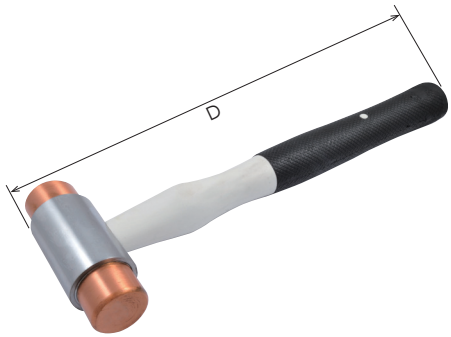
Replacement Tip

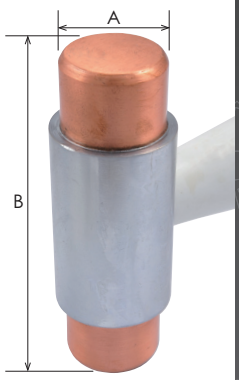
Item#	For Size (OZ.)
7080-0310	12
7080-0311	20

Item#	Size (OZ.)	Head Dia. A	Head Length B	Overall Length D
7080-0300	12	1.0"	4"	11"
7080-0301	20	1.5"	4"	11.5"

2 LB. COPPER HAMMER WITH FIBERGLASS HANDLE

- Non-sparking, non-marring copper striking faces.
- 2 lbs. balanced head for controlled impact.
- Durable fiberglass handle reduces vibration.
- Smooth, well-machined copper faces.
- Built for industrial and maintenance use.



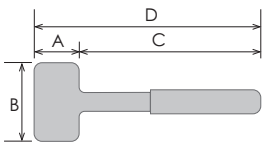


Item#	Size (lbs.)	Head Dia.(A)	Head Length(B)	Overall Length(D)
7080-0040	2	1.22"	4.2"	12.4"

VERTEX® DEAD BLOW HAMMERS - UPE PLASTIC

- Shot loaded interior produces a powerful driving force.
- UPE material strike faces.
- Resistant to industrial chemicals.
- Non-marring, non-sparking.

MADE IN TAIWAN





2 PC HAMMER SET
7080-0303
INCLUDES: 16 & 29OZ.

Item#	Size (OZ.)	Head Dia.(In)	Overall Length
7080-0302	16	1.2	11"
7080-0305	29	1.6	11.8"

Replacement Tip

Item#	For Size (OZ.)
7080-0312	16
7080-0315	29

VERTEX® PU-DEAD BLOW HAMMERS

- Advanced Polyurethane(PU) material will not mar surfaces or absorb liquids.
- Basic: Steel structure and include steel shot.
- Absorbs shock from impact reduces rebound and maximizes force due to steel shot filled canisters.
- Grip is synthetic rubber improving grip and comfort.

MADE IN TAIWAN



Item#	Size OZ	(mm) A	B	C	D
7080-0331	18	38	100	249	287
7080-0333	24	46	100	260	306
7080-0339	49	60	130	308	368

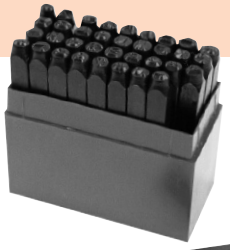
DEAD BLOW HAMMERS

- Shot loaded interior produces a powerful driving force.
- Tough, durable polypropylene casting.
- Resistant to industrial chemicals.
- Non-marring, non-sparking.



Item#	Size (lbs.)	Head Dia.(In)	Overall Length
7080-0291	1	1-3/4	12"
7080-0292	2	2	13-1/2"
7080-0293	3	2-1/2	14-1/2"
7080-0294	4	3-1/2	15"

STEEL STAMP COMBO SETS



- Hardened to RC 59-61 at tip and tempered to RC 40 Rockwell at striking end.
- Made from carbon steel.
- Character style designed to give sharp clear impressions.
- Packed in durable box.
- Easy selection and storage.



SET INCLUDES:
Numbers (0-9), Letters (A-Z)

Item#	Size of Impression
8016-0002	1/8"
8016-0003	3/16"
8016-0004	1/4"
8016-0005	3/8"

MACHINISTS' BENCH BLOCK

- Made from steel-hardened and ground
- A handy tool for holding work when driving pins, drilling, etc.
- The knurled side provides a good gripping surface
- V-groove across the face accommodates round and odd shaped stock
- Holes from 1/8 to 5/8 (3-16mm) diameter

3600-0042

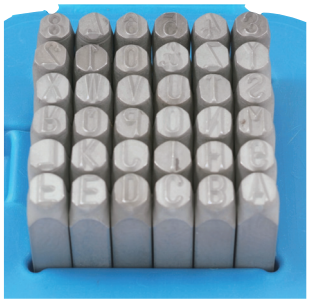
3" Dia.x 1-1/2" H





Pro-Series 36 PC NUMBER/LETTER STEEL STAMP KITS

- Sand blasted surface finish.
- Kit consists of A-Z letters & 0-9 numbers.
- Made of high grade tool steel, each character is hardened and tempered to 60-62 HRC.
- Heavy duty plastic case.





Item#	Size of Impression
8016-0012	1/8"
8016-0013	3/16"
8016-0014	1/4"
8016-0015	3/8"

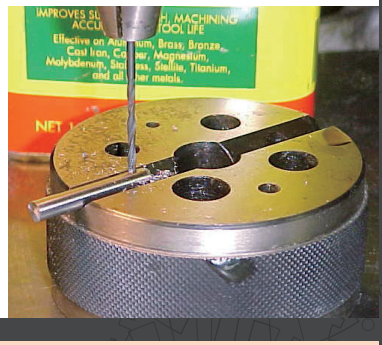
METRIC MACHINISTS' BENCH BLOCK

- Made from steel-hardened and ground
- A handy tool for holding work when driving pins, drilling, etc.
- The knurled side provides a good gripping surface
- V-groove across the face accommodates round and odd shaped stock
- Hole Sizes: 3,4,5,6,8,9,10,12 & 16mm diameter

75MM Diameter x 38MM Height

3-16MM DIAMETER
3600-0043





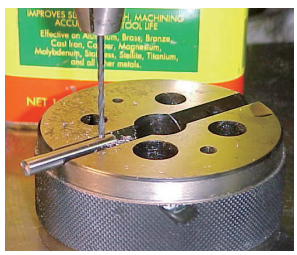
MACHINISTS' BENCH BLOCK & 5 PIECE EXTRA-LONG DRIVE PIN PUNCH SET

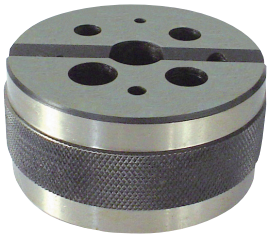
MACHINISTS' BENCH BLOCK

- Made from steel-hardened and ground
- A handy tool for holding work when driving pins, drilling, etc.
- The knurled side provides a good gripping surface
- V-groove across the face accommodates round and odd shaped stock
- Holes from 1/8 to 5/8 (3-16mm) diameter

COMBO SET
9999-0048

3" Dia.x 1-1/2" H







5 PC EXTRA-LONG DRIVE PIN PUNCH SETS

- Black nitrate finish.
- Alloy steel hardened on both ends.
- Finger grip knurled body.
- Pin length: 3-1/2".
- Overall length: 8".
- Complete with vinyl pouch.

BUY A COMBO & SAVE !

5 PC SET INCLUDES:
1/8, 3/16, 1/4, 5/16 & 3/8"

12OZ BRASS HAMMER WITH WOOD HANDLE

- **Non-Marring & Non-Sparking** – Ideal for delicate work where minimal surface damage is required and for use in hazardous environments.
- **Solid Brass Head** – Durable and resistant to wear, providing a softer impact compared to steel hammers.
- **12 oz Weight** – Lightweight for precise control and reduced user fatigue.
- **Shock-Absorbing Wood Handle** – Traditional wooden handle provides a comfortable grip and absorbs vibrations.
- **Balanced Design** – Offers controlled strikes for applications in metalworking, automotive, and machinery maintenance.
- **Corrosion-Resistant** – Brass material resists rust and oxidation, extending the tool's lifespan.

A brass hammer with a wood handle is used for applications where a softer, non-marring, and non-sparking tool is needed. Some common uses include: Ideal for positioning and adjusting machine parts without causing dents or damage to precision surfaces.



Item#	Size	Head Dia. (In)	Overall Length
7080-0032	12OZ	1.35	6"

GROMMET SETTING DIES

- Manufactured from solid steel for inserting sheet brass washer & teeth grommets.
- Useful tool for setting up eyelets.





Item#	For Eyelet Size
8606-2281	10mm
8606-2282	13mm

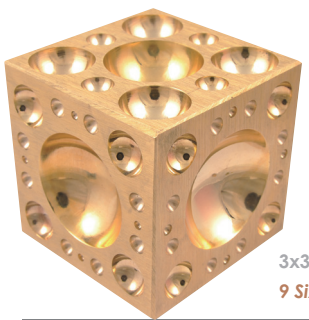
DAPPING DIE BLOCKS - Steel & Brass

- 2x2" block has 18 half-sphere depressions from 4 - 40 mm in diameter.
- 3x3" block has 9 half-sphere depressions from 22 - 62.5 mm in diameter.
- Ideal for doming soft metals with the use of dapping punches or arbor presses and making beads and shaping metals.



Steel
2x2x2" Shown

18 Sizes: 4,5,6,7,8,9,10,11,12,13,14, 16,18,20,25,30,35,40mm



Brass
3x3x3" Shown

9 Sizes: 22,25,28,32,38,45,50,60 & 62.5mm

Block Size	Dapping Size	Steel Item#	Brass Item#
2" x 2"	4,5,6,7,8,9,10,11,12, 13,14,16,18,20,25,30, 35,40mm	8606-3400	8606-3410*
3" x 3"	22,25,28,32,38,45, 50,60 & 62.5mm	8606-3402*	8606-3412*

* Limited Supply

24 PC DAPPING DIE BLOCK & PUNCH SET

- Ideal for making beads and shaping metals.
- Dapping block(2x2") has 18 half-sphere depressions from 2.3 - 25 mm in diameter.
- 24pc Dapping Punches(3.5" long): 2.3, 3.5, 4.3, 5.1, 5.9, 6.7, 7.5, 8.3, 9.1, 9.9, 10.7, 11.5, 12.3, 13.0, 13.8, 14.6, 15.4, 16.2, 17.0, 18.6, 20.2, 21.8, 23.4 & 25.0mm.
- Hardened tool steel.
- Ideal for foming soft metals with the use of dapping punches or arbor presses.

SET INCLUDES:
Dapping Block, 24pc Punches & Wood Stand with Index.

Metric, 24 PC Set
8606-3406



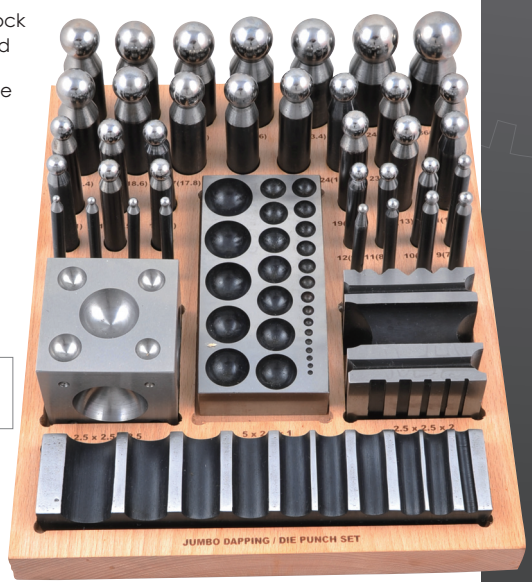
40 PC DAPPING DIE BLOCK & PUNCH SET

- Ideal for multi purpose formings.
- Made of hardened steel.
- Steel Dapping Block 2.5x2.5x2.5"(20 Depressions: 2.0, 3.2, 4.8, 6.4, 7.9, 9.5, 11.1, 12.7, 14.3, 15.9, 17.5, 19.1, 20.6, 22.2, 25.4, 27.0, 28.6, 31.8, 34.9, 44.5 & 50.8mm)
- Steel Flat Dapping Block: 5"x2.5"x1"(27 Depressions: 1.5, 2.0, 2.4, 2.8, 3.2, 3.6, 4.4, 4.8, 5.6, 6.4, 7.1, 7.9, 8.7, 9.5, 10.7, 11.1, 12.7, 14.3, 15.5, 15.9, 17.1, 17.5, 19.1, 20.6, 22.2, 23.8 & 25.4mm)
- Steel Forming Block: Half Round (18 Grooves 4-22mm).
- Forming block (60 x 60 x 50 mm): Constructed of hardened steel. It is with half-round, flat and right-angle grooves. It has different shaped grooves on all sides for shaping metals.
- 36 pc Dapping Punches(3.5" Long): 3.5, 4.0, 4.5, 5.0, 5.5, 6.0, 6.5, 7.0, 7.5, 8.0, 8.5, 9.0, 9.5, 10.0, 10.5, 11.0, 11.5, 12.0, 12.5, 13.0, 13.5, 14.0, 14.7, 15.4, 16.2, 17.0, 17.8, 18.6, 19.4, 20.2, 21.0, 21.8, 22.6, 23.4, 24.2 & 25.0mm
- Wooden stand with index included.

SET INCLUDES:

- 1pc Dapping Block,
- 1pc Flat Dapping Block
- 1pc Steel Half Round Forming Block
- 1pc Flat&Right Angle Forming Block
- 36pc Punches

40 PC Set
8606-3409



WINDOW DIRECT READOUT TORQUE WRENCH

- Meets or exceeds ISO 6789, US Fed. GGG-W-686D & ANSI B107.14M.
- Chrome-vanadium ratchet gear (32 teeth) and fully heat treated handle.
- Patented unique pull-push system, micro-click & reversible.
- Dimension: Width of Head 1.4", Depth of Head 1.23", OAL 19.5"
- Release accuracy ±3%
- Push locking.
- Window scale design for easy reading.
- With fitted case.

1/2" DRIVE



Item#	Drive	Torque Range	Graduation
7020-0151	1/2"	120~150 ft/lbs (30-210Nm)	10ft/lbs

MICROMETER TORQUE WRENCHES

- Dual scale torque wrench.
- Micrometer adjusting, reversible ratcheting.
- Complete with conversion table chart.
- Lock holds torque setting.
- Chrome plated alloy steel.



1/2" DRIVE TORQUE RANGE
7020-0150
10-150 ft./lbs (1.4-20.7 m/kp)

9 PC T-HANDLE TORX KEY SET

- Industrial grade heat treated extrude S-2 alloy steel.
- PVC coated handles provide a non-slip grip.
- Arm reach: 7-1/2".
- Complete with vinyl pouch.



9 PC SET
7900-0001
T10, T15, T20, T25, T30, T40, T45, T50 & T55

COMBINATION WRENCHES

- Polished heads and raised panel.
- Forged steel.
- Open end and 15° offset box opening.



Inch

Item#	Size	OAL
7023-1001	1/4	4
7023-1002	5/16	4.6
7023-1003	3/8	4.8
7023-1004	7/16	4.5
7023-1005	1/2	5.9
7023-1006	9/16	6.3
7023-1008	5/8	6.7
7023-1009	11/16	7.5
7023-1010	3/4	8.2
7023-1011	7/8	10.6
7023-1012	15/16	11
7023-1017	1	10.7
7023-1018	1-1/16	13.6
7023-1019	1-1/8	13
7023-1191	1-3/16	15
7023-1020	1-1/4	13.4
7023-1021	1-5/16	16.8
7023-1022	1-3/8	17.5
7023-1023	1-7/16	18
7023-1024	1-1/2	18.7
7023-1025	1-5/8	19.6
7023-1026	1-11/16	20.2
7023-1027	1-3/4	21.2
7023-1028	1-13/16	22.7
7023-1029	1-7/8	22.4
7023-1030	2	23.5
7023-1031	2-1/8	24.2
7023-1032	2-1/4	25
7023-1033	2-3/8	26
7023-1034	2-1/2	26.7

MM

Item#	Size	OAL (Inch)
7023-2012	6	4.2
7023-2013	7	4.4
7023-2014	8	4.2
7023-2015	9	4.8
7023-2051	10	4.4
7023-2052	11	4.6
7023-2016	12	5.7
7023-2053	13	5.8
7023-2017	14	6.3
7023-2018	15	8
7023-2020	16	8
7023-2021	17	7.6
7023-2022	18	8.6
7023-2023	19	8.3
7023-2024	20	10
7023-2025	21	10
7023-2054	22	10.8
7023-2026	23	11.3
7023-2027	24	11.5
7023-2028	25	12.5
7023-2030	26	13.5
7023-2031	27	12.3
7023-2034	28	14.8
7023-2035	29	14.8
7023-2036	30	13.3
7023-2038	32	13.5
7023-2040	34	16.4
7023-2042	36	17

15 PC COMBINATION WRENCH SET

- Forged chrome plated tool steel.
- All sets fully polished.
- With pouch.



15 PC SET 6~24MM
7023-0006
6,7,8,9,10,11,12,13,14,15,17, 19,21,22,24mm

ADJUSTABLE HAND LEVER WAND KNOBS -Hex Head

- Quick-adjust handle for fast setup changes.
- Hex head design provides secure tightening.
- Durable plastic handle offers comfortable grip.



Item#	Female Thread	Hex (mm)	Handle Length
8017-0048	M6 x 1.5	14	1.65"
8017-0051*	M8 x 1.25	14	2.83"

* Limited Supply

KNURLED KNOBS

- Knurled surface improves grip and control.
- Black oxide finish helps resist wear.
- Ideal for adjustments, lock nuts, and bearings.



8017-0120 Shown

8017-0123 Shown

Item#	Thread	Top Width	Top Diameter	Base Diameter
8017-0120	10-24NC	1/4"	3/4"	7/16"
8017-0123	1/4"-20NC	1/4"	1"	3/8"
8017-0125	3/8"-16NC	1/2"	1-1/4"	3/4"

BALL KNOBS

- Round shape provides comfortable hand grip.
- Bakelite material offers long service life.
- Ideal for machine handles and controls.



Item#	Diameter (mm)	Thread
8017-0030	25	M6
8017-0032	25	M8
8017-0033	38	M8
8017-0035	38	M10
8017-0037	38	M12
8017-0038	42	M12

RATCHET DIGITAL READOUT COUNTER

- 5-digit display provides easy reading.
- Reset knob allows quick counter reset.
- Compact design fits many machine applications.
- Base: 2-1/8 x 1-3/4".
- Height: 1-1/4".

3900-0203



REVOLVING HANDLES

- Revolving grip improves comfort during operation.
- Bakelite handle provides durable everyday use.
- Ideal for machine controls and handwheels.

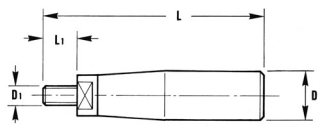


Item#	Thread x Length	Handle Length (mm)	Handle Dia (mm)
8017-0080	M8 x 13mm	56	20
8017-0085	M10 x 13mm	56	20
8017-0086*	M10 x 13mm	76	22
8017-0087	M10 x 13mm	83	25

* Limited Supply

FLAT END HANDLES- REVOLVING

- Revolving handle allows smooth handwheel operation.
- Steel construction provides strength and durability.
- Fits most movable handwheels and controls.

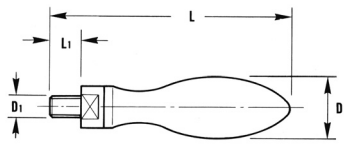




Item#	Thread D1	Dimensions (mm) D	L1	L
8017-0001	M10X1.5	23	16	100
8017-0002	3/8"-16	22	16	99

ELLIPSE END HANDLES- REVOLVING

- Ergonomic shape improves operator comfort.
- Revolving design allows smooth turning action.
- Steel construction handles heavy shop use.





Item#	Thread D1	Dimensions (mm) D	L1	L
8017-0010	M6x1.0	16	7	60
8017-0012*	M10x1.5	26	13	110
8017-0016	3/8"-16	25	13	99

* Limited Supply

KNOB HAND

- Large knob provides comfortable grip and control.
- Plastic construction is lightweight and durable.
- Threaded stud allows quick installation.

8017-0042



HEAVY DUTY PEDESTAL BENCH GRINDER STAND



- Designed to accommodate 6", 7", 8", and 10" bench grinders and bench buffers, and 1", 2" and 4" belt grinders.
- Base and top are made of heavy-duty cast iron
- Top size: 10-5/8x10-5/8"
- Steel column is 3-1/2" diameter
- Adjustable height water pot provides quenching for work piece.
- Unique design allows mounting with 4 bolts, Mounting slots are 1/2" width & mounting holes are 1/2" diameter.
- Stand Height: 33"
- Pedestal leg length: 9.5"
- Weight: 58 lbs.

8071-0035

PEDESTAL STAND FOR BENCH GRINDERS



- For 6, 8 & 10" grinders
- Base for Grinder : 9-3/4 x 9-3/4"
- Overall height: 34"
- Weight: 22 Lbs.
- Coolant tank and adjustable tool tray.

8071-0034

HEAVY DUTY BENCH GRINDERS

- Direct drive motor with no brushes or belts to adjust or replace
- Permanently lubricated motor bearings
- Adjustable shatter-resistant plastic eye shields
- Removable wheel covers for easier wheel changes
- Free speed: 3,500 RPM
- Adjustable tool rests
- Power: 110 V/ 1Phase
- 6' wire cord
- UL approved
- Spindle Dia. : 1/2"
- Thread: 14 TPI.

6", 1/2 HP
7600-0030

COLOR MAY VARY

8", 3/4 HP
7600-0028*

* Limited Supply



WILTON STYLE 4" MACHINE BENCH VISE

A Wilton-style 4" Machine Vise is a robust and precise clamping tool commonly used in milling, drilling, and machining applications.

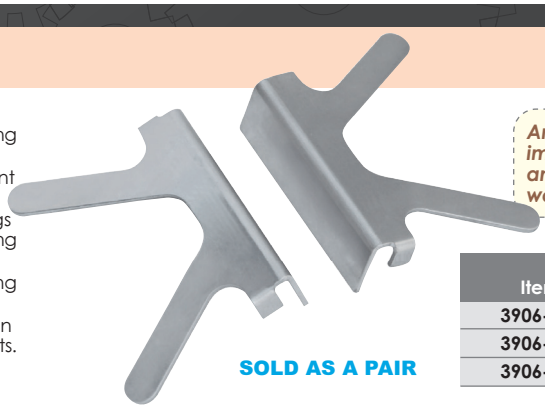
- **Precision Ground Base & Jaws** - Ensures accurate alignment and secure workpiece clamping for precision machining.
- **Heavy-Duty Cast Iron Construction** - Provides durability and rigidity, reducing vibrations during cutting operations.
- **Replaceable Hardened Steel Serrated Jaws** - Offers long-lasting performance and can be replaced when worn out.
- **Strong Clamping Force** - Designed to hold workpieces securely, preventing movement during machining.
- Swivel base included.
- **Large Opening Capacity** - Typically accommodates workpieces up to approximately 4 inches wide, allowing versatility in use.
- **Adjustable Gibs for Smooth Operation** - Ensures consistent jaw movement with minimal backlash.
- **Lead Screw with Protective Enclosure** - Helps prevent chips and debris from damaging the screw mechanism, increasing lifespan.
- **Versatile Mounting Options** - Pre-drilled holes for secure attachment to milling tables or drill presses.



Item#	Jaw Width	Jaw Opening	(Inch) Height	Wt. (Lbs.)
3906-2514	4	4	6.52	30

ALUMINUM VISE JAW CAPS

- **Durable Aluminum Construction** – Made from high-quality aluminum, providing a lightweight yet strong solution for protecting workpieces.
- **Protects Workpieces** – Softens the clamping pressure to prevent damage, marring, or scratching of delicate or soft materials.
- **Non-Marring Surface** – The smooth surface ensures no markings or impressions are left on the workpiece, making it ideal for finishing or precision work.
- **Easy Installation** – Simple to attach to existing vise jaws, enhancing functionality without the need for complex setup.
- **Corrosion-Resistant** – Aluminum's natural resistance to corrosion ensures the jaw caps maintain their durability in harsh environments.
- **Sold in pairs**.



SOLD AS A PAIR

An affordable solution for improving vise functionality and protecting both the workpiece and the vise jaws.

Item#	For Vise Jaw Width
3906-2172	4"
3906-2173	5"
3906-2174	6"

48" PAN & BOX BRAKE

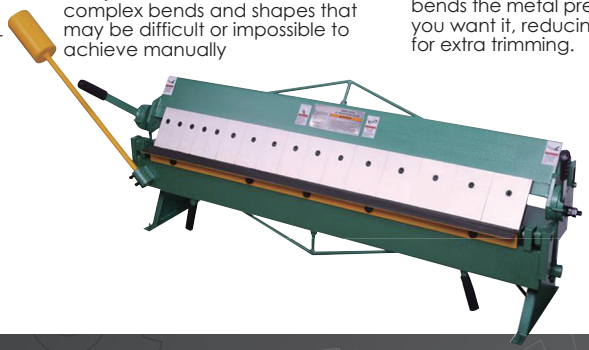
HHIP pan and box brake is designed for bending sheet metal. A valuable tool for anyone working with sheet metal, from metalworking professionals to DIY enthusiasts, due to its ability to create precise and efficient bends. Its key features include adjustable fingers for customized bend angles and widths, a durable construction made of steel and a clamping mechanism to secure the metal during bending.

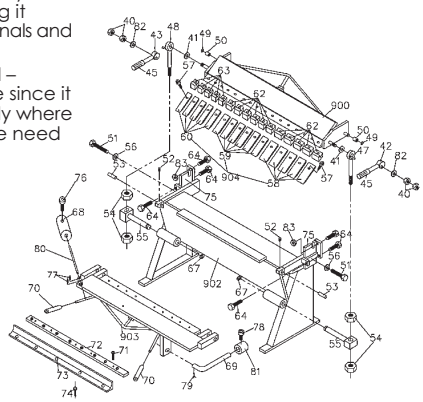
8600-4032

- **Precision Bends** – allows for precise and consistent bends in sheet metal, ensuring accuracy in your projects.
- **Versatility** – 46" width can handle various thicknesses and types of sheet metal, making it suitable for a wide range of applications.
- **Efficiency** – speeds up the bending process compared to manual methods, saving time and effort.
- **Hardened steel fingers** – easily removed and or repositioned.
- **Left and right beam control levers** – for easy operation.
- **Large contour balanced brake handle** – for brake past 90-130°
- **Safety** – It provides a controlled and secure environment for bending metal, reducing the risk of accidents or injuries
- **Repeatability** – allows you to replicate bends with high accuracy, important for producing multiple identical parts.
- **Complex Bends** – can handle more complex bends and shapes that may be difficult or impossible to achieve manually
- **Professional Finish** – produces clean and neat bends, resulting in a polished and professional appearance for your projects.
- **Reduced Strain** – Using a pan and box brake reduces the physical strain on the user, making it suitable for both professionals and hobbyists.
- **Conservation of Material** – minimizes material waste since it bends the metal precisely where you want it, reducing the need for extra trimming.

SPECIFICATIONS	
Capacity (mild steel)	16 gauge
Brake range	0~135°
No. of finger	2"/5, 3"/6, 4"/5
Footprint	52" x 12"
Weight	368 lbs.

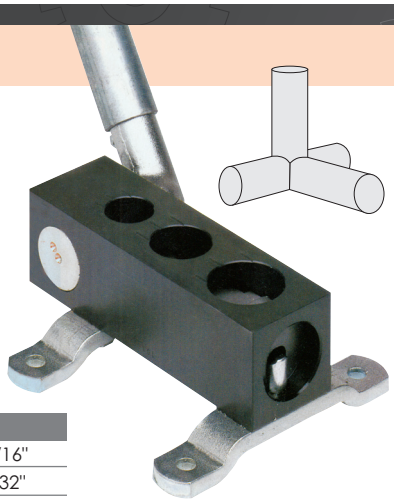






TUBE NOTCHERS

- Operated on tubes with up to .118" wall thickness for steel.
- Advantage for joining and welding of tubes at a 90° angle.
- One device covers several tube diameters.
- Horizontal and vertical operation.
- Suitable for double-connections.

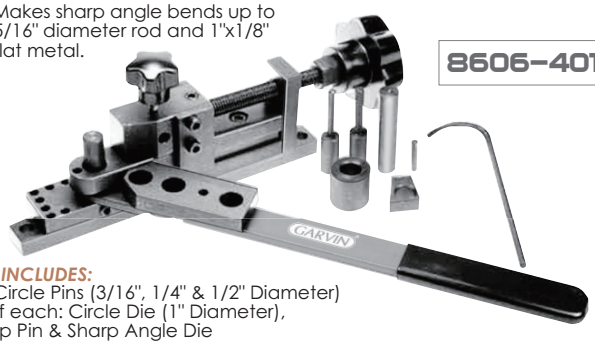


Item#	Range
8600-4046	1-1/16 ~1-11/16"
8600-4047	1-7/8 ~ 2-13/32"

MINI UNIVERSAL BENDER-Forms Wire,Flat Metal & Tubing

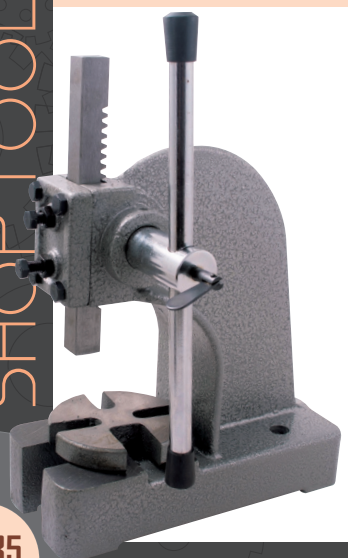
- Forms wire, flat metal and tubing into clamps, handles, brackets, hooks, coils and more.
- Makes sharp angle bends up to 5/16" diameter rod and 1"x1/8" flat metal.
- Made of hardened tool steel.
- Mounts on a work bench or held in a vise.

8606-4019

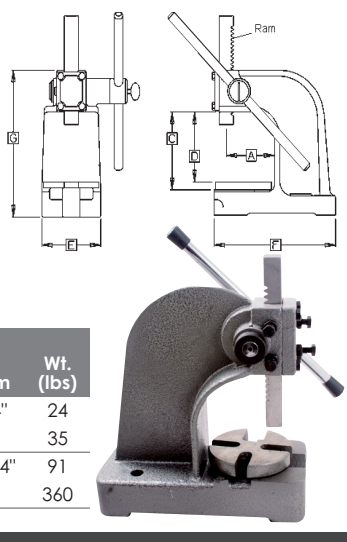


KIT INCLUDES:
3- Circle Pins (3/16", 1/4" & 1/2" Diameter)
1 of each: Circle Die (1" Diameter),
Stop Pin & Sharp Angle Die

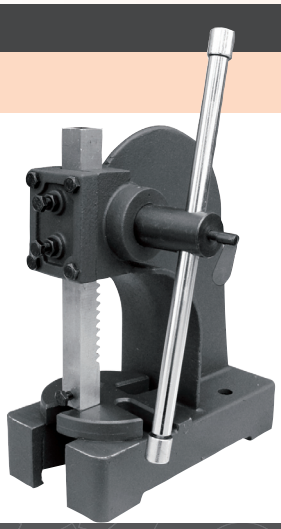
HEAVY DUTY ARBOR PRESSES



- Durable frame for long-lasting use. Precision-made for accurate pressing.
- 4-position steel anvil for versatility. Steel pinions for smooth and easy operation.
- Can be used to press fitting bearings, bushings, and sleeves onto shafts.
- Bends and shapes small metal parts, such as wire or sheet metal.
- Punches holes in materials such as leather or metal.
- Riveting and staking operations.
- Assembling and disassembling small parts.
- Installing and removing press-fit parts in machinery and equipment.
- Flattening and crimping sheet metal for fabrication.
- Forming and stamping jewelry and small metal art pieces.

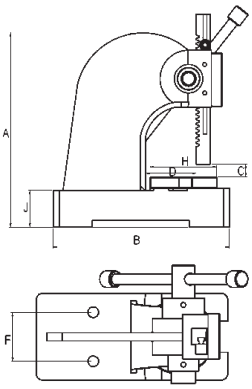


Item#	Press (Ton)	Max. A	Press Ht. G	Base ExF	Capacity Over Table C	Capacity Over Anvil D	Ram	Wt. (lbs)
8600-0031	1/2	3.54"	10.24"	4.35 x 9.53"	4.33"	3.62"	3/4"	24
8600-0032	1	4.29"	13"	5.04 x 10.63"	5.63"	4.84"	1"	35
8600-0033	2	4.52"	17.72"	6.77 x 16.93"	8.44"	7.68"	1-1/4"	91
8600-0035	5	7.87"	33.67"	10.95 x 25.59"	18.76"	17.72"	2"	360



HHIP HEAVY DUTY ARBOR PRESSES

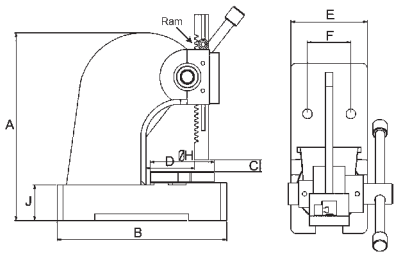
- Heavy-duty cast frame construction delivers maximum rigidity and long service life for demanding shop press operations.
- Precision-machined ram and steel pinions provide smooth, accurate pressure control for repeatable pressing results.
- 4-position steel anvil increases versatility and allows fast setup changes for different workpiece sizes.
- Compound leverage handle design reduces operator effort while generating high pressing force with better control.
- Ideal for pressing bearings, bushings, gears, pins, and other assembly or repair work in machine shops and maintenance departments.



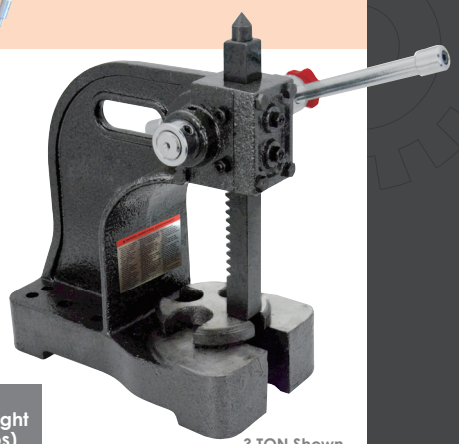
Item#	Press (Ton)	A	B	Capacity Over Anvil C	Capacity Over Table	(Inch) D	E	F	Anvil H	Wt. (lbs)
8600-1031	1/2	10.20	9.25	2.95	3.69	3.54	2.36	4.17	2.68	18
8600-1032	1	12.80	10.63	3.94	4.68	4.92	2.95	5.12	3.35	33
8600-1033	2	17.91	16.93	5.91	6.68	6.50	3.94	6.50	4.72	69

Pro-Series ARBOR PRESSES - With 3 PC Punch Set

- For riveting, squeezing, punching, bending, and other pressing applications.
- Base drilled for mounting on bench or pedestal.
- Sturdy, cast-iron construction.
- Removable machined steel anvil provides accurate work support in four slot positions.
- Rugged steel ram is driven by machined pinion.
- Punches or tools may be added to the end of the ram with the aid of a magnetic insert.




1 TON Shown


3 TON Shown

Item#	Press (Ton)	High Speed Wheel	Max. D	Press Ht. A	Capacity Over Anvil C	Anvil Dia. H	Ram	B	E	J	Weight (lbs)
8600-0130	1/2	No	3.3"	11"	4.6"	3-1/2	3/4"	9.5"	5	2	20
8600-0131	1	Yes	4"	14"	5.5"	4-1/2	1"	16"	8	2-1/8	33
8600-0132	2	No	6"	18"	8.52"	6-3/4	1-1/4"	18"	9-1/2	3-1/8	71
8600-0133	3	No	9"	36"	18"	6-3/4	1-1/2"	21"	10	4	105

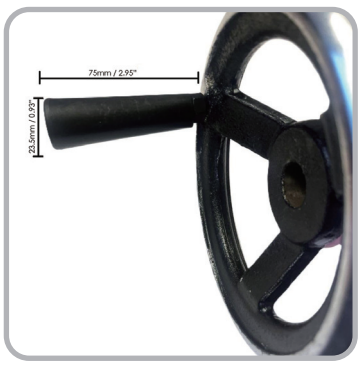

Arbor Press Bit Set Included

REPLACEMENT ARBOR PRESS SPEED HANDLE FOR 1 TON PRESS

- Heavy-duty steel construction delivers long service life and dependable performance in demanding shop environments.
- Quick-install replacement design restores arbor press operation fast, minimizing downtime and keeping production moving.
- Speed-handle design allows faster ram positioning and smoother operation for improved workflow efficiency during repetitive pressing jobs.
- Precision-machined handle components provide secure fitment and reliable leverage for accurate pressing and assembly applications.
- Ideal for replacing worn or damaged handles on our HHIP Pro-Series 8600-0131 1-ton arbor presses used for bearing installation, riveting, staking, broaching, and light assembly work



8600-3300



3 PC PIN SET FOR ARBOR PRESSES

- **Three Essential Pressing Pins** – Includes flat, pointed, and round drift pins for a wide range of pressing, aligning, and assembly tasks.
- **Versatile Shop Applications** – Ideal for riveting, squeezing, punching, bending, staking, and other precision press operations.
- **Fits Most Arbor Presses** – 3/8" shank diameter fits arbor presses with a standard 3/8" ram hole for quick, secure installation.
- **Hardened Steel Construction** – Built to withstand repeated shop use while maintaining strength and reliable performance.
- **Perfect for Machine Shops & Maintenance** – A versatile accessory set for machinists, maintenance departments, toolrooms, and general repair work.
- **Pin Dimensions(Shank Diameter x Shank Length x Overall Length):**
  Flat: 3/8x0.76x1.58"
  Point: 3/8x0.76x1.50"
  Round Drift: 3/8x0.76x1.50"

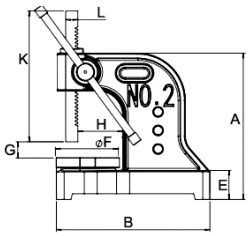
FITS MOST ARBOR PRESSES WITH RAM HOLE 3/8" DIAMETER

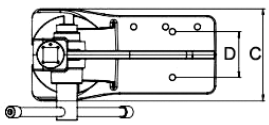


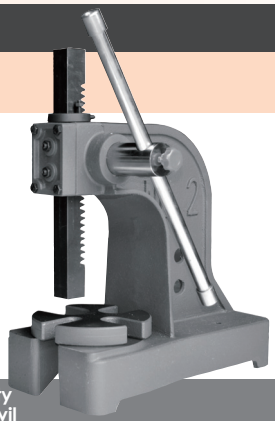
3 PC Pin Set
(Flat,Point & Round Drift)
8600-3310

Pro-Series ARBOR PRESSES

- For riveting, squeezing, punching, bending, and other pressing applications.
- Base drilled for mounting on bench or pedestal.
- Sturdy, cast-iron construction.
- Removable machined steel anvil provides accurate work support in four slot positions.
- Rugged steel ram is driven by machined pinion.







8600-1132 Shown

Item#	Press (Ton)	A	B	C	(MM) D	E	Anvil Dia. F	Capacity Over Anvil G	H	K	Wt. (lbs)
8600-1130	1/2	235	235	135	60	45	85	100	75	200	17
8600-1131	1	280	270	155	60	45	110	125	90	250	31
8600-1132	2	390	405	200	100	80	170	170	115	330	60
8600-1133	3	540	456	240	100	100	170	280	130	455	117
8600-1135	5	796	624	290	120	118	250	450	210	648	269

Pro-Series 3 TON RATCHET LEVER ARBOR PRESS - LARGE CAPACITY

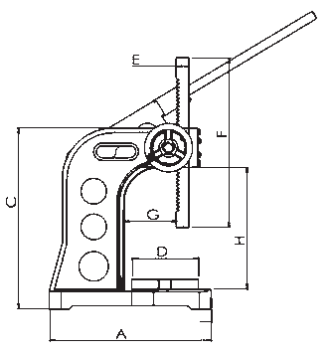
RATCHET TYPE

8600-4401
Weight: 130 Lbs.



Designed for pressing, riveting, bending, broaching, and assembly work, these Pro-Series 3 Ton Ratchet Lever Arbor Presses deliver powerful, controlled operation with reduced operator effort. The ratcheting lever system, quick positioning handwheel, and heavy-duty cast iron construction make them ideal for machine shops, fabrication, maintenance, and production applications. Interchangeability with Palmgren RP30 components provides added convenience for replacement parts, tooling compatibility, and easier integration into existing shop setups.

- Ratcheting lever mechanism provides controlled high-force pressing while reducing operator fatigue during repetitive production work.
- Handwheel quickly advances the ram for fast positioning, improving setup speed and precision alignment on workpieces.
- Large-capacity open frame design accommodates oversized parts for pressing, riveting, bending, broaching, and assembly applications.
- Counterweighted ram and smooth-action gearing deliver easier operation, better control, and faster return between cycles.
- Heavy-duty cast iron construction with slotted table openings supports arbors and shafts while providing long-lasting shop durability.
- Reversible steel ram accepts punches and tooling, increasing versatility for custom pressing and fabrication operations.
- Precision-machined gears and lever system provide fine ram movement control for accurate pressing pressure and positioning.
- Bench or pedestal mounting capability allows flexible installation for machine shops, maintenance departments, and production environments.
- Interchangeable with Palmgren RP30 components, allowing convenient replacement part compatibility and easier integration into existing shop equipment.





Optional Pedestal
8600-3610
Weight: 70 Lbs.

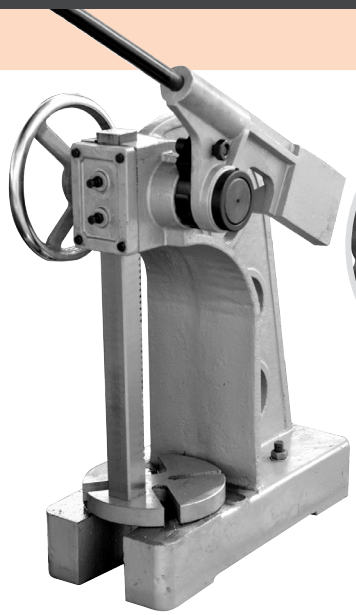
- This arbor press floor pedestal is used with the Dake Model1 or 1-1/2 (3 ton) arbor presses & our #8600-4401.
- Features slot to accomdate pieces that extend below the base.
- Anvil diameter word area 22-1/4".
- Dimension(LxWxH): 12x21x36"

SPECIFICATIONS

Unit: Inch/mm

Capacity (Ton)	A	B	C	D	Ram E	Ram Punch Hole Dia.	G	Capacity Over Table H
3	21-1/4 / 539.8	9-7/8 / 250.8	27-3/4 / 704.9	7-13/16 / 198.4	1-1/4x1-1/4 / 31.8x31.8	1/2 / 12.7	6-7/8 / 174.6	17 / 413.8

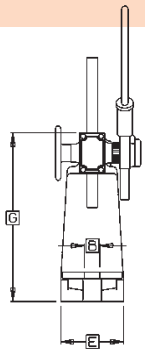
RATCHET LEVER ARBOR PRESSES

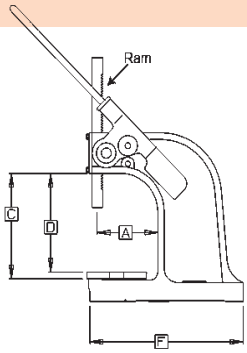




- Ratchet device permits lever to be used in most convenient position.
- Heavy-duty casting frame.
- 4-position anvil.
- Hand wheel advances ram to work quickly.

RATCHET TYPE





Item#	Capacity (Ton)	Height of Press G	Max. A	Arbor	Ram	Capacity Over Anvil D	Base E x F	Weight (lbs)
8600-3301	**2**	18-1/2"	6"	1-7/8"	1/1/4"	8-1/2"	11.0 x 17.3"	86
8600-3401	**3**	21-1/2"	6"	1-3/4"	1-1/2"	12-5/8"	10.7 x 17.5"	132
8600-3501	**5**	35"	8.5"	2"	2"	15"	14.6 x 25.4"	440

REPLACEMENT RATCHET ARMS WITH HANDLE

- Direct replacement for HHIP ratcheting arbor presses.
- Complete ratchet arm and handle assembly.
- Restores smooth, easy press operation.



Item#	For Arbor Press Ratchet Type	Fits
8600-3315	2 Ton	For 8600-3301
8600-3316	3 Ton	For 8600-3401
8600-3318	5 Ton	For 8600-3501

REPLACEMENT RAMS

- Heavy-duty replacement ram for arbor presses.
- Precision-machined for proper fit and operation.
- Available for multiple press capacities.



Item#	For Arbor Press Type	Square	Fits
8600-3320	1/2 Ton	3/4"	For 8600-0031
8600-3321	1 Ton	1"	For 8600-0032
8600-3322	2 Ton	1-1/4"	For 8600-0033
8600-3323	5 Ton	2"	For 8600-0035

REPLACEMENT SPINDLE FOR RATCHET ARBOR PRESS

- Original-style replacement spindle.
- Designed for HHIP ratcheting arbor presses.
- Durable construction for reliable pressing performance.



Item#	For Arbor Press Type	Fits
8600-3304	2 Ton	For 8600-3301
8600-3305	3 Ton	For 8600-3401
8600-3306	5 Ton	For 8600-3501

REPLACEMENT RATCHETING GEARS & RINGS FOR ARBOR PRESSES

- Original replacement parts.
- Ring & ratcheting gear sold seperatly.
- Fits HHIP brand ratcheting arbor presses.

For Arbor Press Type	I.D.	Ratcheting Gear Item#	Retaining Ring Item#
2 Ton	1.77" / 45mm	**8600-3302**	**8600-3303**
3 Ton	2.2" / 54.5mm	**8600-3402**	**8600-3403**
5 Ton	3.0" / 76.5mm	**8600-3502**	**8600-3503**

Retaining Ring Shown





Ratcheting Gear Shown

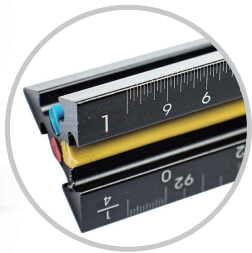
Dasqua® 12" TRIANGULAR SCALE RULE

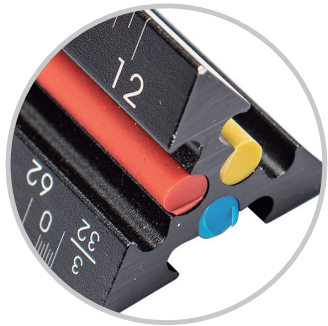
- Triangular architect's rule features 3 sides with 6 different scales.
- Professional grade for supreme accuracy.
- Color-coded grooves for quick and accurate selection of the desired scale.
- Made from high grade anodized aluminum.
- 3 Color Coded Sides: Red--1:100; 1:200; Yellow--1:500; 1:600, Blue--1:300; 1:400

12" RULE
1804-4405







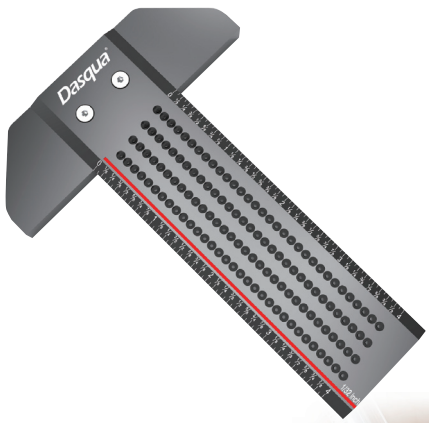


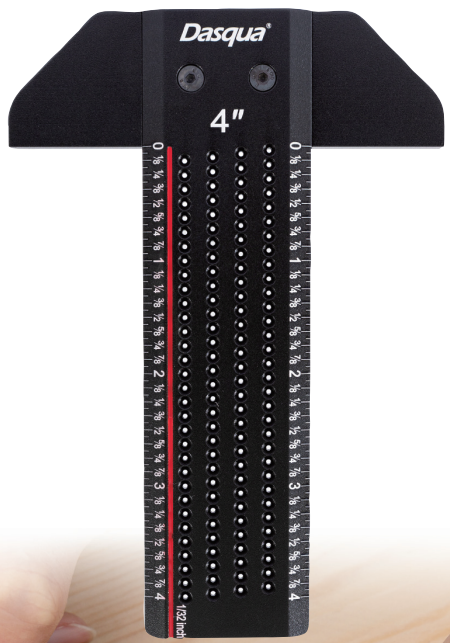


Dasqua® 4" T-SHAPED RULER WITH MARKED HOLES

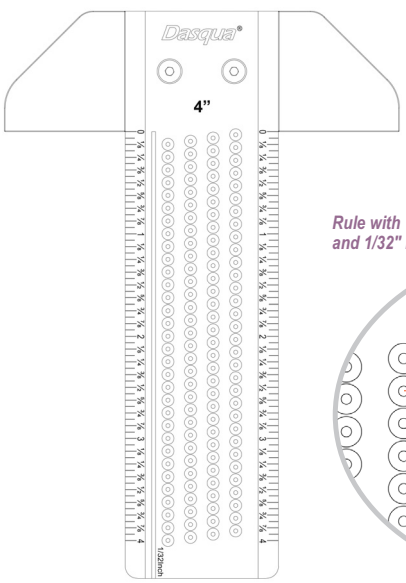
- Precision CNC machined for accuracy and durability.
- Laser engraved with high-contrast scale markings for easy reading.
- 4-inch (100mm) length with marked holes for precise positioning and layout.
- Features a bevel surface for easy reading and marking.
- Designed for marking, positioning, splicing, and inlaying on wood.

HEAVY DUTY TRADITIONAL RULER WITH LASTEST FUNCTION

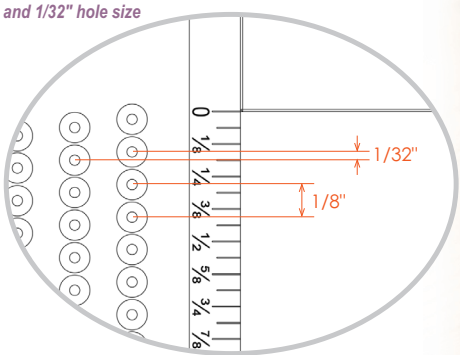




4" LENGTH
1804-5333



Rule with 1/8" hole distance and 1/32" hole size





Dasqua® 6" T-SHAPED HEAVY DUTY RULE WITH MARKED HOLES

- Precision CNC machined for accuracy and durability.
- Laser engraved with high-contrast scale markings for easy reading.
- 6-inch (150mm) length with marked holes for precise positioning and layout.
- Features a bevel surface for easy reading and marking.
- Designed for marking, positioning, splicing, and inlaying on wood.

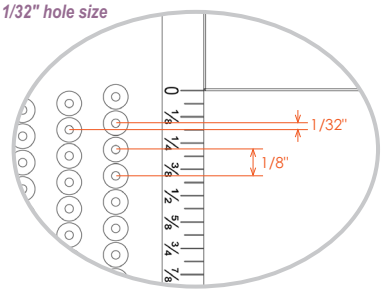
6" LENGTH
1804-5339



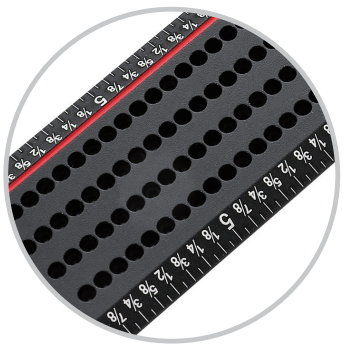




Rule with 1/8" hole distance and 1/32" hole size

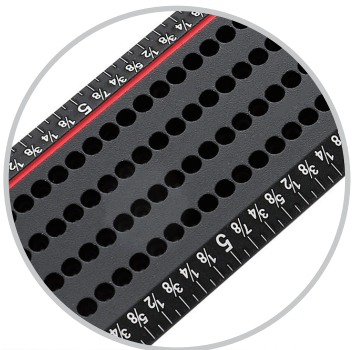


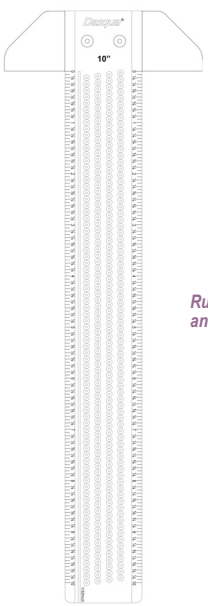




Dasqua® 10" T-SHAPED HEAVY DUTY RULE WITH MARKED HOLES

- Precision CNC-machined for excellent accuracy and long-lasting durability.
- High-contrast laser-engraved scale for clear, easy-to-read measurements.
- 10" (250 mm) length ideal for layout, marking, and positioning tasks.
- Marked holes with 5 mm spacing and 1 mm hole size for precise marking.
- Beveled surface allows easy reading and accurate marking.
- T-shaped design ensures stable referencing against edges.
- Designed for marking, positioning, splicing, and inlay work.
- Ideal for woodworking, cabinetry, and general layout applications.

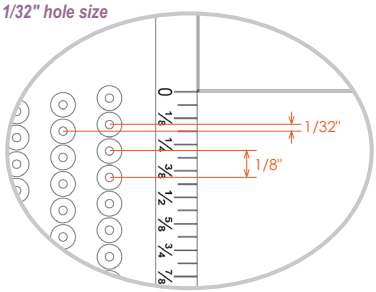




10" LENGTH
1804-5343



Rule with 1/8" hole distance and 1/32" hole size

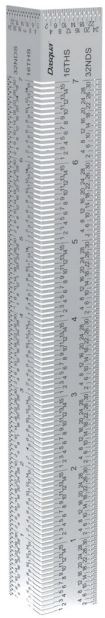


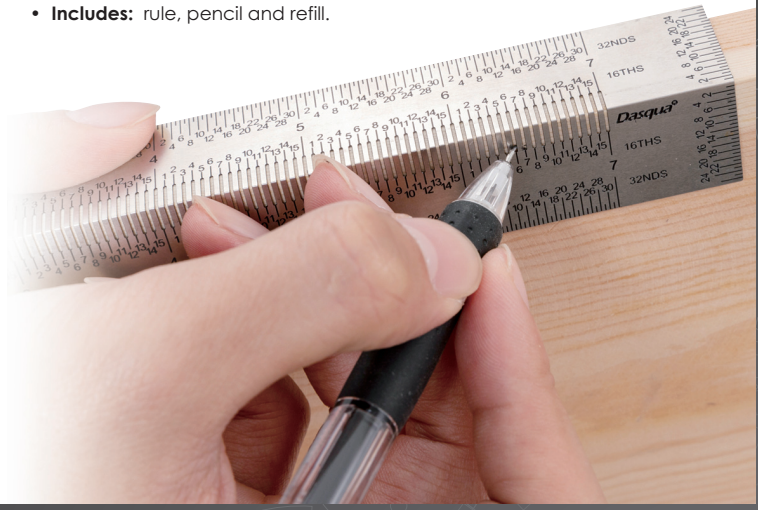
Dasqua® 7" PRECISION MARKING T-RULE & PENCIL

- **Precise Marking and Measuring:** Accurately mark straight lines, measure distances, and check for squareness with this versatile T-rule.
- **Durable Stainless Steel Construction:** Made from high-quality stainless steel for lasting performance and resistance to wear and tear.
- **CNC Machined:** Precision machining ensures accuracy and smooth operation.
- **Etched Graduations:** Clear and precise graduations in both inches and millimeters for easy reading and accurate measurements.
- **Versatile Applications:** Ideal for woodworking, metalworking, crafts, DIY projects, and more.
- **Compact and Portable:** 7-inch (150mm) size makes it easy to carry and use in any workspace.
- **T-shaped design:** Provides stability and allows for marking along edges.
- **Includes:** rule, pencil and refill.

7" LENGTH
1804-5772



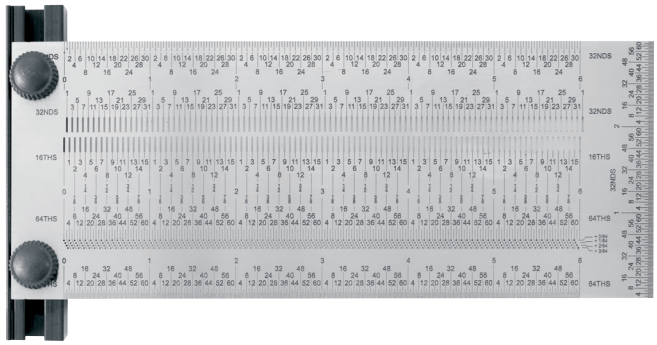




Dasqua® 8" PRECISION WIDE MARKING T-RULE

- Special thin stainless steel, clear and accurate scale, CNC processing, and comfortable texture.
- Horizontal line, vertical line, long line, short line, parallel, right angle, lets you draw the line as you like.
- Combination square for marking with perfect, instant accuracy.
- T-rules make it very easy to draw exact lines in either direction.
- Marking pencil and refill included.

8" LENGTH
1804-5774



Dasqua® 12" PRECISION MARKING T-RULE

- Special thin stainless steel, clear and accurate scale, CNC processing and comfortable texture.
- Horizontal line, vertical line, long line, short line, parallel, right angle, lets you draw the line as you like.
- Combination square for marking with perfect, instant accuracy.
- T-rules make it very easy to draw exact lines in either direction.
- Includes: T-rule, Pencil and Refill.

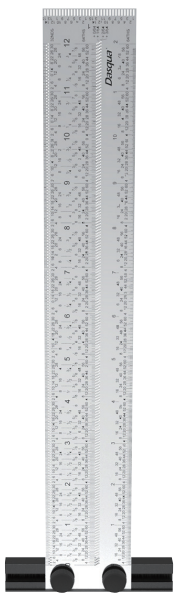
12" LENGTH
1804-5770



THIN-FLEXIBLE-PRECISE







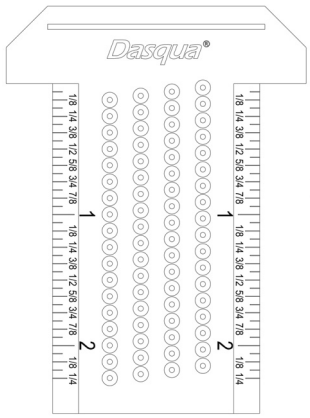
Dasqua® POCKET MARKING RULES

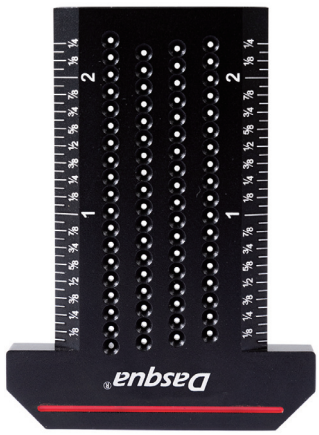
- High quality durable and rust-resistant aluminum alloy
- The marking rule helps to mark precise, straight and parallel lines as needed.
- The holes are the perfect size to use with the included mechanical pencil for drawing different parallel lines
- Precision marking rule with 5mm hole distance and 1mm hole size.

T-SHAPED RULE
1804–5662

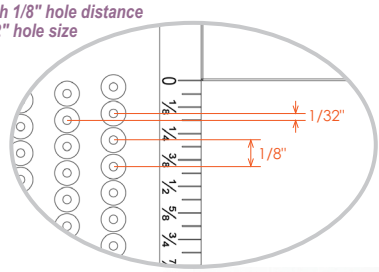






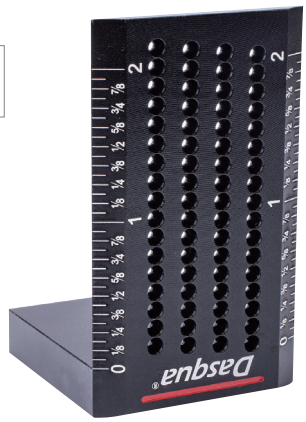


Rule with 1/8" hole distance and 1/32" hole size



SQUARE RULE
1804–5552





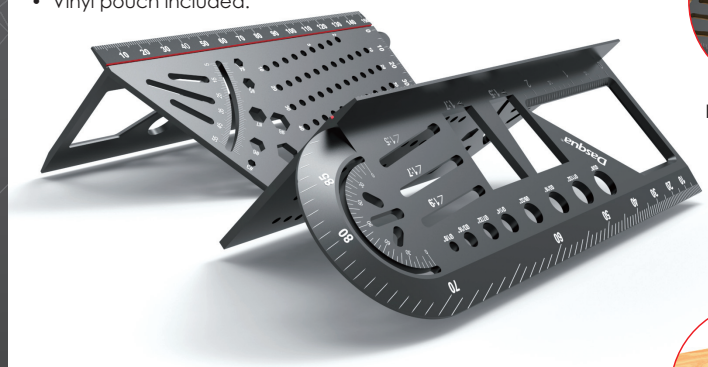






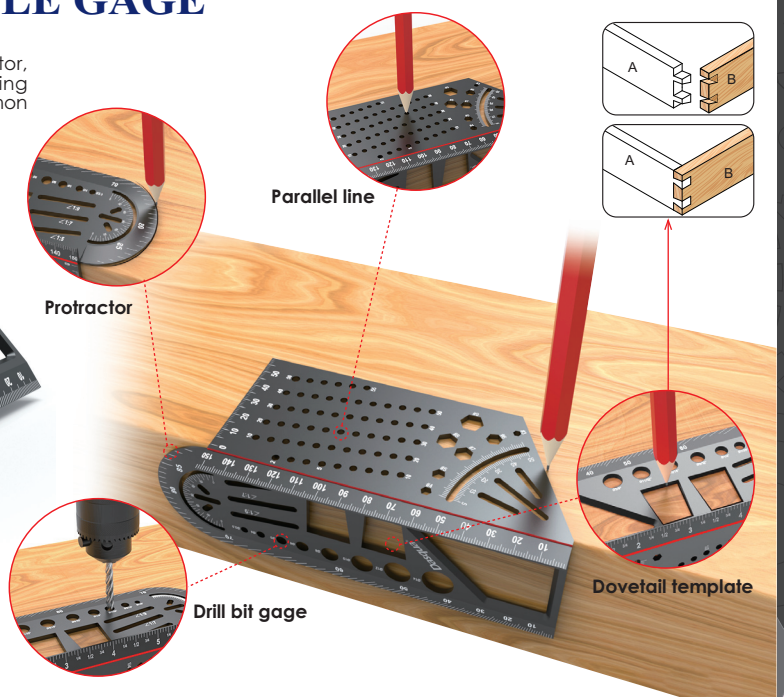
Dasqua® 45/90° ANGLE RULE GAGE

- The angle rule gage has more than 10 functions: square, protractor, dovetail template, circular hole, parallel line, vertical line, drilling positioning, T-shaped dovetail joint, 60° angle, 90° angle. Ten common angles to meet your different needs.
- High quality durable and rust-resistant aluminum alloy.
- CNC machined for precision and accuracy.
- Vinyl pouch included.



6" Rule Gage
1804–1107

Rule: 6" long



Dasqua® 6" PRECISION MARKING PROTRACTOR

- Special thin stainless steel, clear and accurate scale, CNC processing, and comfortable texture.
- Horizontal line, vertical line, long line, short line, parallel, right angle, lets you draw the line as you like.
- Combination square for marking with perfect, instant accuracy.
- T-rules make it very easy to draw exact lines in either direction.
- Includes: Protractor, Pencil and Refill.

1804-5778






Dasqua® 8" UNIVERSAL BEVEL PROTRACTOR

- **Precise Angle Measurement:** Accurately measure and transfer angles from 0 ~ 180° for various applications.
- **Durable Aluminum Construction:** Made from high-quality aluminum alloy for strength and durability.
- **CNC Machined:** Precision machining ensures accuracy and smooth operation.
- **Black Anodized Finish:** Provides enhanced corrosion resistance and a professional look.
- **Shock Resistant:** Withstands impacts and drops for reliable performance in demanding environments.
- **Versatile Applications:** Ideal for woodworking, metalworking, carpentry, construction, DIY projects, and more.

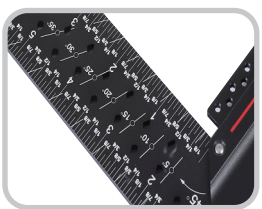
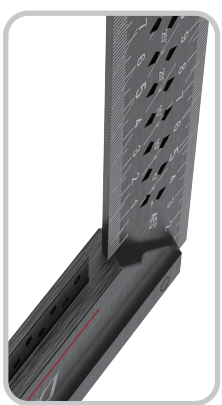
6 x 8"
1804-4105



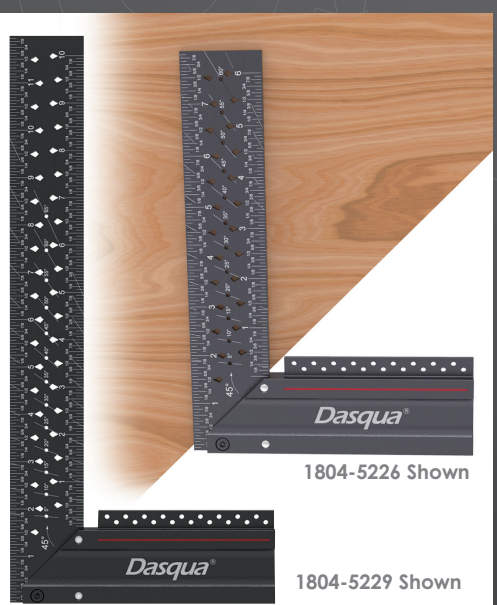


Dasqua® MULTIFUNCTION SQUARE

- Precision CNC single-frame blade and base ensure guaranteed 90° accuracy.
- Durable anti-scratch anodized finish with precision laser-engraved markings for long-lasting clarity.
- Built-in marking holes every ½" for fast, accurate markings with angles from 5°–65° in 5° increments.
- Parallel and perpendicular layout capability for versatile measuring tasks.
- Center-finding capability for improved alignment.
- Diamond marking hole for easy scribing and centering.
- Heavy-duty construction designed for professional use.
- Ideal for woodworking, machining, and layout applications.

Item#	Size	Graduation
1804-5226	8"	1/16"
1804-5229	12"	1/16"



1804-5226 Shown

1804-5229 Shown

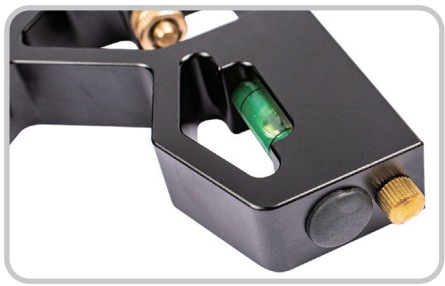
Dasqua® 2 PC 12" COMBINATION SQUARE SET

- **Versatile 2-Piece Set:** Includes a 12-inch (300mm) rule, a square head, a brass scribe, and a knurled nut for a wide range of measuring and marking tasks.
- **Precise Construction:** CNC machined aluminum body and rule for accuracy and durability.
- **Black Anodized Finish:** Provides enhanced corrosion resistance and a sleek look.
- **Multiple Applications:** Ideal for woodworking, metalworking, construction, DIY projects, and more.
- **Easy to Use:** Simple design and clear markings for effortless measurements and marking.
- **Precise Graduations:** Rule features 1/32" and 1/64" graduations on one side and 0.5mm and 1mm graduations on the other.



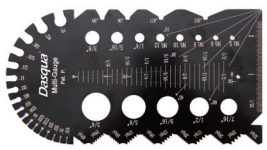
12", 2 PC SET
1804-0805



Dasqua® 5 PC MARKING & LAYOUT TOOL SET

Inch Multi-gage



- Made of tool steel with black coating
- Laser engraved markings.
- **7-IN-1 Combine:** Wire gage, Drill Sizes, Drill Point gage, Screw Pitch gage, Bore gage, Ruler & Protractor.
- Tap/Drill recommendation chart included.
- **Wire Gage:** 0.024~0.25"
- **Drill Sizes:** #5, 6, 8, 10 ,12, 1/4", 5/16", 3/8", 7/16", 1/2" 9/16", 5/8" & 3/4".
- **Drill Points:** 60°, 90°, 118° & 135°.
- **Screw Pitch Gage:** 40th, 32nd, 24th, 20th, 18th, 16th, 14th, 13th, 12th, 11th & 10th TPI.
- **Bore Gage:** 1/64~1/2"
- **Rule:** 2-1/2" (32nds)
- **Protractor:** 15°, 30°, 45°, 60° & 90°
- 6-5/8" long x 3-1/2" wide.

Rafter Square



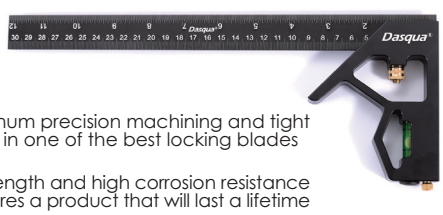
- Solid, one-piece aluminum body with CNC machined edges for accuracy and durability.
- Permanent graduations and numbers are easy to read.
- Thick edge makes for a safer saw guide.
- Mark and cut boards up to 12 inches wide.
- Complete instruction manual included with rafter tables.
- Anodized finish will not rust or corrode.
- With a protractor scale 0-90°.
- Increased heel width for cutting deck boards.
- Strong cast aluminium body with clear embossed imperial graduations and common rafter conversion table.

STRONG CARBORD BOX WITH FITTED FIRM FOAM INSERT



5 PC SET
1804-1406

Combination Square 300mm/12"



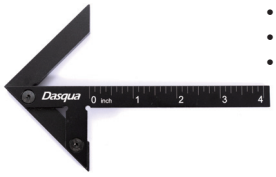
- **Accuracy:** Aluminum precision machining and tight tolerances results in one of the best locking blades available.
- **Durability:** The strength and high corrosion resistance of aluminum ensures a product that will last a lifetime
- Brass scribe and knurl nut.
- Deep etched graduations which will not wear out.
- Light weight and durable.

Engraving Pen





Center Square 4"x3"



- Made of hardened aluminium
- Scale has special laser-engraving.
- Scratch resistant with inch graduations.
- Enables the user to accurately locate the center of round stock, has a 90° right angle head with a rule at precisely at the center to give an accurate 45° use in location turning centers on square, or round stock as well as measures 90° for other squaring functions.

Dasqua® 6 PC PRECISION MULTI-FUNCTIONAL SQUARE SET

- Made of high-quality aluminum alloy with stainless-steel clamps for a durable set that protects against rust and corrosion providing you with long-term service.
- This set is used both professionally and DIY by clamping boxes, drawers, cabinets, frames. It is perfect for squaring up shelf cabinets and wood board jointing.
- Exact 90 degree angle.
- High accuracy laser marked scale.
- Perfect for wood board jointing.
- Includes: 2 Aluminum Angle Squares and 4 Clamp Blocks.

6 PC SET
1804-6551



PRECISION SQUARE WITH ACCURATE CLAMPING FUNCTION!







Dasqua® MEASURING RULES WITH HOOK STOP

- CNC machined rule to make accurate measuring and layout quicker than ever.
- Made of solid aluminum alloy material, durable and not easy to break.
- Laser etched scale makes it easy to read and very precise.
- Hook stop design making it easy to use and convenient to operate.

12" RULE
1804-6991

INCH/METRIC



24" RULE
1804-6993



36" RULE
1804-6996



HOOK STOP

Dasqua® DRILL GUIDE (1/8~3/8X64THS)-17 HOLES

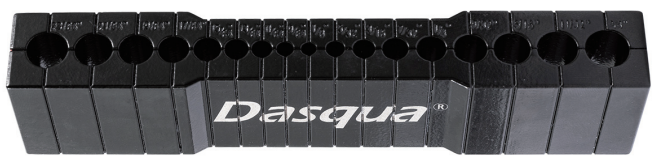
- Universal drill guide provides perpendicular alignment of drill bits on flat, round or square workpiece.
- Increments (SAE) drill sizes: 1/8, 9/64, 5/32, 11/64, 3/16, 13/64, 7/32, 15/64, 1/4, 17/64, 9/32, 19/64, 5/16, 21/64, 11/32, 23/64 & 3/8"
- Heat-treatment and electrophoresis provides durability & accuracy
- Heavy duty steel construction to ensure the hardness.

JUST LIKE A PORTABLE DRILL PRESS!!

1804-6333

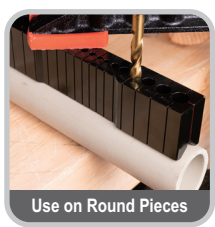


LASER ENGRAVED SCALE



USE ON WOOD, PLASTIC, METAL & MORE!


Use on Corners


Use on Round Pieces


Use on Flat Materials

Dasqua® 7"/170MM MITER SAW PROTRACTOR

- **Accurate Miter Cuts:** Transfers the work angle directly to the miter saw in 3 steps, eliminating error-prone calculations and ensuring perfect miter joints every time.
- **Easy to Use:** Set your miter saw to the angle you read on the protractor, regardless of whether it's upside down or backward.
- **Two Scales:** A red scale and arrow show the angle for a miter joint, while the black arrow and scale provide the angle to fit a single workpiece to an angle.
- **Durable Construction:** Made from high-grade aluminum with a sandblasted finish and coated with a protective anti-rust coating.
- **Precision Machined Edges:** Align with the laser engraved scale graduations for accurate readings.
- **Compact Size:** 7-inch (178mm) design makes it easy to carry and use in any workshop.
- **2-Year Warranty:** Provides peace of mind and ensures long-lasting durability.



7"/170MM
1804-1006





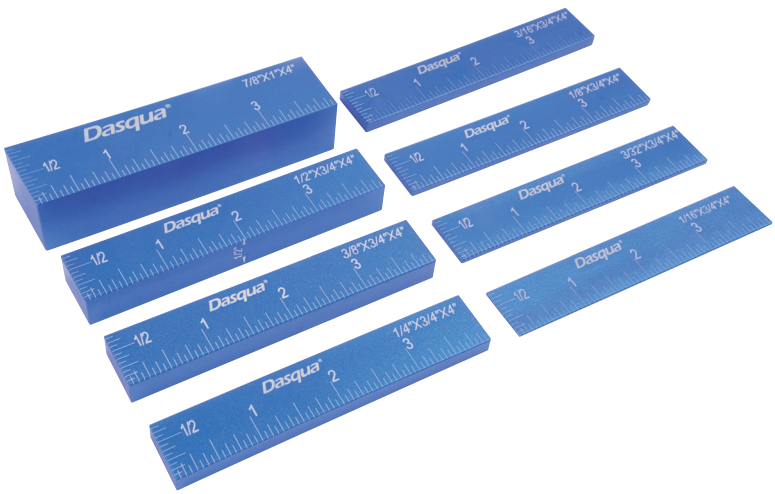




Dasqua® 8 PC SETUP BLOCK SET - INCH

NEW

- CNC-machined, anodized aluminum
- Easy-to-read, laser-etched markings
- Set-up blocks are especially handy where space is limited, or the area you're working in is obstructed. If you have a job that requires precise setups, even in an accessible area.
- **Includes:** 8 pieces with 4 x 3/4" (Length x Width) in the following thicknesses: 3/4" 1/16, 3/32, 1/8, 3/16, 1/4, 3/8, 1/2, 7/8".





8 PC SET
1804-1603

Dasqua® 15 PC PRECISION SET-UP BLOCK SET

- CNC machined and blue anodized aluminum.
- Easy-to-read, laser-etched markings.
- Block Thickness Accuracy: 0.001"/0.025mm
- Set-up blocks are especially handy where space is limited or the area you are working in is obstructed.
- For a job that requires precise setups even in an accessible area.
- **Inch Set Dimensions:** 3x2x1/16, 3x2x3/32, 3x2x1/8, 3x2x5/32, 3x2x3/16, 3x2x7/32, 3x2x1/4, 3x2x5/16, 3x2x3/8, 3x2x7/16, 3x2x15/32, 3x2x1/2, 3x2x23/32, 3x2x3/4 & 3x2x1".
- **Metric Set Dimensions:** 75x12.5x1, 75x12.5x1.5, 75x12.5x2, 75x12.5x3, 75x12.5x4, 75x12.5x5, 75x12.5x6, 75x12.5x7, 75x12.5x8, 75x12.5x10, 75x12.5x12, 75x12.5x15, 75x12.5x18, 75x12.5x20 & 75x12.5x25mm
- Case included.







15 PC Inch Set
1804–1610
Range: 1/16-1"

15 PC Metric Set
1804–1605
Range: 1-25mm







Dasqua® 6 PC PRECISION SET-UP BLOCK & 1-2-3 BLOCK SET

- Mainly used for router table, drill press table and band saw fences.
- Blue anodized aluminum.
- Heat treated and case hardened to HRC 58-62.
- Set-up blocks for measuring distance and aligning machine fixtures into parallel.
- Woodworkers will find effective in positioning drill press components, table saw jigs and router fences.
- **Block Dimensions:** 2x1/2x1/16, 2x1/2x1/8, 2x1/2x1/4, 2x1/2x1/2, 2x1/2x3/4 & 2x1/2x1".
- **1-2-3 Block Accuracy:** 0.0002".
- Includes: 5 Set-up Blocks, 1-2-3 Block and Case.

6 PC Combo Set
1804–1615



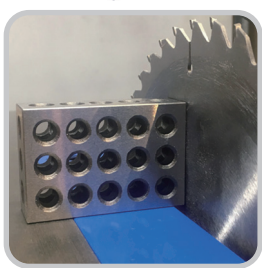
CHECK ON STOCK THICKNESS WITHOUT A TAPE MEASURE











Pro-Series 5 PC PROFESSIONAL WOOD WORKING KIT

Whether you're beginning your woodworking journey or looking to upgrade your essential hand tools, this 5-Piece Professional Woodworking Kit is designed to deliver top-quality results. Featuring matching hardwood and brass accents, this premium set includes all the essentials for precision craftsmanship. The kit comes with a 9" smoothing plane, 6" block plane, 9" try square, 9" marking gauge, 9" bevel gauge, and a fitted wooden case for organized storage.



- Premium quality kit consisting of a smoothing plane No. 4, an adjustable mouth block plane, a try square, an adjustable bevel and a mortice gauge.
- The set comes conveniently packed in a beautiful wooden carry case.
- Net Weight: 11 Lbs.

Kit Includes:

- Block Plane No. 60-1/2 (6"/150mm)
- Smoothing Plane No. 4 (10"/250mm)
- Mortice Marking Gauge (6"/150mm)
- Adjustable Bevel (9"/225mm)
- Carpenter Square Double side Brass (9"/225mm)

5 PC KIT
3006-1005

Pro-Series 3 IN 1 SHOULDER PLANE

- A shoulder plane, bull nose plane and chisel plane in one versatile tool.
- Install the long extension for a shoulder plane, the short extension for a bullnose plane, and no extension for a chisel plane.
- Polished lever cap and shims that can vary the mouth opening.
- Depth of cut is micro adjustable with the brass screw.
- Blade is a hair wider than the full width of the plane body, ensuring clean, sharp corners without leaving a ridge.
- Made of ductile cast iron and the blade is precision ground flat.
- The sides are machined perfectly square with the sole.
- Useful for fine-tuning tenons and cleaning up corners, rabbets and other joinery elements.

- **Overall Length:** 6-1/8"
- **Blade Width:** 1-1/8"
- **Weight:** 2.2 lbs.

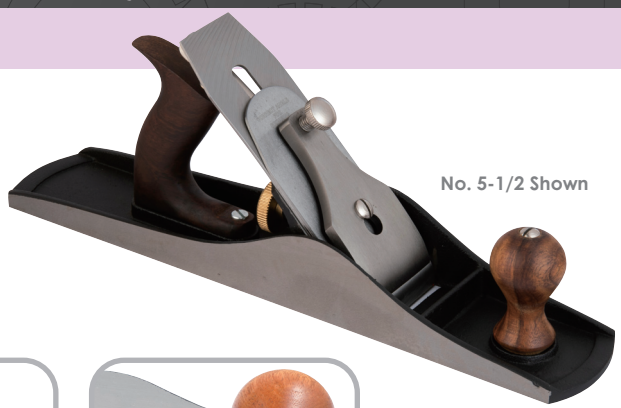


3006-0027

Replacement Blade
3006-0028

Pro-Series SMOOTHING BENCH PLANES

- A jack plane include soles and sides that are machined flat and ground, lightly finished hardwood handles, grey cast iron body and frog.
- 2mm thick blade made of carbon steel hardened and ground.
- Frog screw is made of steel, nickel plated
- The mechanism requires the removal of frog, cap ir cutting iron to reduce mouth opening.



No. 5-1/2 Shown



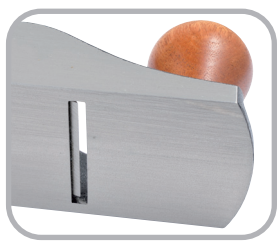
Blade Shown

No.3
3006-0031



No. 3 Shown





No. 5-1/2
3006-0038

Plane No.	Plane Length Inch	Plane Length mm	Blade Width Inch	Blade Width mm	Weight lbs.	Plane Item#	Replacement Blade Item#
3	9-1/2	240	1-3/4	45	3.85	**3006-0031**	**3006-0032**
5-1/2	14-3/4	370	2-3/8	60	6.82	**3006-0038**	**3006-0039**

INDEX

1-2-3 Blocks 86-87, 89
2-3-4 Blocks 88
2-4-6 Blocks 88-89
2-Flute Counterbores 114
see also Counterbores
3-Flute Counterbores 114-115
see also Counterbores
3-Flute Countersinks & Deburring Tools 113
see also Countersinks & Deburring Tools
4-Way Vee V-Blocks 95
see also V-Blocks
4-In-1 Master Keys 259-260
see also Drill Chuck Accessories
40-Position Quick Change Tools 334
see also Quick Change Tools
5C Collet Chucks 326
5C Collet Wrench 309
see also Collet Accessories
5C Emergency 309
see also Collets
5C Expanding 312
see also Collets
5C Hex 309
see also Collets
5C Metric 307
see also Collets
5C Mount 325
see also Lathe Chucks
5C Mounts 324
see also Lathe Chuck Accessories
5C Square 309
see also Collets
5C Step 312
see also Collets
6-Flute Countersinks & Deburring Tools 113
see also Countersinks & Deburring Tools

A

Adapters & Holders
BT 30 & 40 End Mill Holders 232
Morse Taper End Mill Holders 234
NMTB End Mill Holders 236
NMTB Shell End Mill Holders 236
R8 End Mill Holders 231
R8 Shell End Mill Holders 154, 232
R8 Stub Mill Holders 232
R8 to MT Sleeves 233
Spindle Taper Wipes 237
Straight Shank Stub Mill Holders 232, 243
V-Flange End Mill Holders 243
V-Flange MT Adapters 243
V-Flange Shell End Mill Holders 151, 243
Adjustable Clamps 262, 264-265
see also Clamping Kits & Components
Adjustable Hand Lever 383
see also Handles & Knobs
Adjustable Parallels 92
see also Parallels
Adjustable Tailstocks 123, 260, 295-296, 311, 337
see also Tailstocks
Air Tool Accessories
Blow Guns & Kits 370
Collets 370
Couplers 370
Mandrels & Wheel 370
Regulators & Separator 370
Air Tools
Die Grinders & Sets 369
Sanders 370
Wrenches 369
Aloris Style Posts, Holders & Sets 331-333
see also Quick Change Tools
Angle & Tilt Vises 288
see also Drill Press Vises
Angle Blocks 87, 92, 94
see also Blocks
Angle Gages
Digital Angle Gage 78
General 33
Precision Angle Gage Set 33
Angle Plates
2 Pc. Solid Set 92
Compound 97
Ground, Square 97
MC 99
Slotted - Open End 97-98
Slotted - Webbed End 98
Stepped & Steel 96
Angle Vises 285
see also Milling Machine Vises
Anglock Type Vises 272-275
see also Milling Machine Vises
Annular Cutters
1" Depth of Cut 108-109
2" Depth of Cut 108
Anvil Attachment, Micrometer 20
see also Micrometer Accessories
Aprons 370
Arbor Presses
General & Heavy Duty 383-386
Ratchet Type 385-386
Arbors & Mandrels
Expanding Arbors 313
Expanding Mandrels 313
Lathe Mandrels 314
Saw Arbors 140, 232
Test/Alignment Mandrels 102
Arbors for Drill Chucks
MT to JT 233, 260
NMTB to JT 236
R8 to JT 231, 260
Sensitive Hand Drill Feed 255
Straight Shank to JT 260
V-Flange 242-243
Axial Support 67
see also Indicator Accessories

B

B&S Taper Collets 235
see also Collets
Back Plates
A Mount 324
see also Lathe Chuck Accessories
D Mount 324
see also Lathe Chuck Accessories
L Mount 324
see also Lathe Chuck Accessories
Threaded 3 Jaw 318, 323
see also Lathe Chuck Accessories
Threaded 4 Jaw 323
see also Lathe Chuck Accessories
Threaded No Hole 3 & 4 Jaw 323
see also Lathe Chuck Accessories
Unthreaded 323
see also Lathe Chuck Accessories
Backs, Indicator 51, 56, 65
see also Indicator Accessories
Ball Attachment 20
see also Micrometer Accessories
Ball Knob 383
see also Handles & Knobs
Ball Nose - 2-Flute End Mills 136
see also HSS, Coated & Cobalt End Mills
Batteries 7-9, 11-17, 30, 62, 231
BBN/S/L Boring Bars 172
see also Boring Bars
Bench Blocks 380
see also Blocks
Bench Centers 100-102
Bench Grinders & Stands 384
Bench Vises 384
Benders 385
Bevel Edge Squares 74
see also Squares
Beveled Cut-Off Blades 165, 334
see also Cut-Off Blades
Blade Outside/Mechanical Micrometers 21, 24
see also Outside/Mechanical Micrometers
Blades - Iscar Type 162-163, 334
see also Cut-Off & Grooving Tooling
Blades, Deburring Tools 131-132
see also Deburring Tools
Blind Hole Spotters 376
see also Punch & Chisel Sets
Blocks
1-2-3 86-87, 89
2-3-4 88
2-4-6 88-89
Angle 87, 92, 94
Bench 380
Dapping 381
Magnetic 90° 3A
Set Up 397
Space 86
Blocks - Iscar Type 164
see also Cut-Off & Grooving Tooling
Blow Guns & Kits 370
see also Air Tool Accessories
Bore Gages
Countersink Chamfering 111
Dial Bore Gages 42
Taper Bore Gages 40
Boring Bars
BBN/S/L 172
Carbide Tipped 145
Cobalt 145
Holders - Double End 145
Round Shank - TCMT 173-175
S-CTFPR 171
S-MCLNR 171
S-MVUNR 172
S-MWLNR 172
SCLCR 169-170, 174
SCLPR 170
SDJCR 170
SDUCR 171
STFCR 171
STFPR 171
Boring Heads
Individual Heads 221-222
R8 224
Sets 218-226
Shanks 221-222, 225
Brakes, Pan & Box 385
see also Pan & Box Brakes
Brass Hammers 378
see also Hammers

INDEX

Brite-Mark & Markal Markers 372
see also Marking Supplies & Equipment

Broaches
Bushings for Broaches 142
Keyway & Sets 141-142
Shims for Keyway Broaches 142
Square 142
BT 30 & 40 End Mill Holders 232
see also Adapters & Holders
Bull Nose Live Centers 341
see also Dead & Live Centers
Burrs 133
Bushings, Tool Holder Type 314

C

Caliper/Electronic Depth Gages 29
see also Depth Gages

Calipers
Accessories
Accessory Point Kit 18
Cases 17
Centerline Gage 18
Depth Base Attachment 18
Transmitters & Cables 13
Brake Drum Gage 15
Dial 4-6
Digital/Electronic
1" (Snap Caliper) 12
12" 7-11, 13, 15
20" 13, 15
24" 13-15
4" 7
40" 13, 15
6" 2A, 6-12
60" 13-14
8" 7-11
80" 14
Plastic 1, 9
Spring 69
Vernier 1-3
Carbide Inserts *see Inserts*
Carbide Tipped Boring Bars 145
see also Boring Bars
Cases for Calipers, Replacement 17
see also Calipers, Accessories
Cast Iron & Granite V-Blocks 83, 95
see also V-Blocks
Center Cutting 2-Flute End Mills 135
see also HSS, Coated & Cobalt End Mills
Center Cutting 4-Flute End Mills 135-136
see also HSS, Coated & Cobalt End Mills
Center Finders 74
Center Gages 34
Center Punch & Chisel Sets 373, 378, 381
see also Punch & Chisel Sets
Centered V-Magnet (Base Only) 51
see also Indicator Holders & Stands
Centering Indicators 66
see also Indicators
Centerline Gage 18
see also Calipers, Accessories

Centers
Bench 100-102
Dead & Live
Bull Nose 341
Dead 339
Extended Point 340, 342
Interchangeable Point Set 340
Standard Point 339-340, 343
Chamfer Gages 111
Chamfering Cutters (HSS) 139
see also Cutters (HSS)
Chamfering End Mills (Indexable) 146
see also End Mills (Indexable)

Chucks
5C Collet 326
Collet 2A, 254
Drill
Drill Chucks with Keys 255, 258-259
Integral Shank Drill Chucks 256-257
Keyless Drill Chucks 255-256
Pin Chucks 260, 378
Drill Chuck Accessories
4-In-1 Master Keys 259-260
Drift/Center Keys 233
Removal Wedges 260
Replacement Keys 259
ER Collet
ER - NMTB 236, 249
ER - R8 249
ER - Sets 251-252
ER - Straight Shank 249, 253, 310
ER - V-Flange 250
ER to JT 250, 254
ER- Fixtures 253, 326
ER- MT 250
ER-5C 250, 303
ER-BT 250
ER Collet Chuck Accessories
Mini ER Chuck Nuts 248
Mini ER Chuck Wrenches 248
Standard ER Chuck Nuts 247-248
Standard ER Chuck Wrenches 248
Hydraulic 235, 314
Lathe
5C Mount 325
D-Mount 3-Jaw 319
D-Mount 4-Jaw 321-322
Front Mount 299, 303-305, 317-318
Morse Taper Mount 324
Plain Back - 3 Jaw 299, 305, 317-318
Plain Back - 4 Jaw 320-321
Plain Back - 6 Jaw 320
Self Centering 299, 301, 322
Lathe Chuck Accessories
5C Mounts 324
Backplates - A Mount 324
Backplates - D Mount 324
Backplates - L Mount 324
Backplates - Threaded 3 Jaw 318, 323
Backplates - Threaded 4 Jaw 323
Backplates - Threaded No Hole 3&4 Jaw 323
Backplates - Unthreaded 323
Jaw Boring Rings 327
Lathe Chuck Jaws 325, 327-328
Self-Ejecting Wrenches 326
Standard Wrenches 326
Magnetic 352-353
NT30 2A
Rotary 300
Circle Dividing Heads 303-305, 360
see also Dividing Heads
Clamping & Hold Down Kits 262-263, 265
see also Clamping Kits & Components

Clamping Kits & Components
Adjustable Clamps 262, 264-265
Clamping & Hold Down Kits 262-263, 265
Clamping Studs 264, 266
Coupling Nuts 264, 266
Flanged Nuts 264, 266
General 263, 265-267
T-Slot Bolts 264
T-Slot Nuts 264, 266
Clamping Studs 264, 266
see also Clamping Kits & Components
Clamps for Indicator 67-68
see also Indicator Accessories
Clamps, Replacement Parts 158-159,177,188,216
see also Replacement Parts
CNC Self-Centering Milling Machine Vises 275,279-283
see also Milling Machine Vises
CNC Super-Lock Milling Machine Vises 276-278
see also Milling Machine Vises
CNC Twin-Lock Milling Machine Vises 279
see also Milling Machine Vises
Cobalt Boring Bars 145
see also Boring Bars
Cobalt Drills, Jobber Length 105
see also Drills, Jobber Length

Collet Accessories
5C Collet Wrench 309
Collet Stops 309
ER Collet Wrenches 248
Collet Block Set 310
see also Fixtures & Indexers/Spacers

Collet Holders & Tool Trays
5C 247, 308
R8 230-231
Collet Stops 309
see also Collet Accessories

Collets
5C 307-308
5C Emergency 309
5C Expanding 312
5C Hex 309
5C Metric 307
5C Square 309
5C Step 312
B&S Taper 235
ER-11 245-246
ER-16 244-247, 250-251, 254
ER-20 244-247
ER-25 245-247, 311
ER-32 244-247, 251, 311
ER-40 245-247
Morse Taper Sets 234
R8 229-231
R8 Metric 230
Rubber Flex 128
SK Lyndex Style 254
W Style 235
Collets for Air Tools 370
see also Air Tool Accessories
Combination Wrench Sets 382
see also Wrenches
Combination Squares 72-74, 83, 394
see also Squares
Combination Wrenches 382
see also Wrenches
Compound Angle Plates 97
see also Angle Plates
Concentricity Checkers 101
Connectors & Valves 370
see also Pneumatic
Contour Magnetic Base 51
see also Indicator Holders & Stands
Conversion Point, Indicator 56
see also Indicator Accessories
Convex Milling Cutters 139
see also Cutters (HSS)

INDEX

Coolant & Fluid Control
Coolant Hose Units & Accessories 363-365
Pump Kits 366-368
Refractometer 365
SK 366
Coolant Hose Units & Accessories 363-365
see also Coolant & Fluid Control
Copper Hammers 379
see also Hammers
Corner Rounding End Mills 134
see also HSS, Coated & Cobalt End Mills
Counterbores
2-Flute 114
3-Flute 114-115
Sets 114
Counters 383
Countersink & Chamfering Holders 146
Countersinks & Deburring Tools
3-Flute 113
6-Flute 113
Helical 111, 113
Single Flute 111-113
Zero-Flute 111
Couplers for Air Tools 370
see also Air Tool Accessories
Coupling Nuts 264, 266
see also Clamping Kits & Components
Cross Slide Vise 288
see also Tables
Cut off Inserts 161, 163, 167, 216-217
see also Inserts
Cut-Off & Grooving Tooling
Blades - Iscar Type 162-163, 334
Blocks - Iscar Type 164
Integral Shank - Grooving 164
Integral Shank - SGTH 164
Integral Shank - SLTH 164
Sets - Iscar Type 163
Cut-Off Blades
Beveled 165, 334
Parallel, P-Type 164-165
Cutters
Annular
1" Depth of Cut 108-109
2" Depth of Cut 108
Dovetail 147
Fly 143-144
Cutters (HSS)
Chamfering 139
Convex Milling 139
Dovetail 139
Gear 140
Keyseat 138
T-Slot 138
Woodworking 337
see also Woodworking
Cylindrical Squares 74
see also Squares

D

D-Mount 3-Jaw Lathe Chucks 319
see also Lathe Chucks
D-Mount 4-Jaw Lathe Chucks 321-322
see also Lathe Chucks
D11A2 - Flaring Cup Diamond Wheels 347
see also Diamond & CBN Wheels
D11V9 - Flaring Cup Diamond Wheels 347
see also Diamond & CBN Wheels
D1A1 - Straight Style Diamond Wheels 347
see also Diamond & CBN Wheels
D1A1R - Cut-Off Diamond Wheels 347
see also Diamond & CBN Wheels
Dapping Blocks 381
see also Blocks
Dead & Live Centers
Bull Nose 341
Dead 339
Extended Point 340, 342
Interchangeable Point Set 340
Standard Point 339-340, 343
Dead Blow Hammers 379
see also Hammers
Deburring Tools
Blades 131-132
Holders & Sets 131-132
Demagnetizers & Magnetizers 371
Depth Base Attachment 18
see also Calipers, Accessories
Depth Gages
Caliper/Electronic Depth Gages 29
Dial Depth Gage 29
Micrometer/Electronic Depth Gages 30
Micrometer/Vernier Depth Gages 29-30
Depth Micrometers 29-30
see also Depth Gages
Dial Bore Gages 42
see also Bore Gages
Dial Calipers 4-6
Dial Depth Gage 29
see also Depth Gages
Dial Height Gages 79, 81
see also Height Gages
Dial Test Indicators 51,57,60-61,63-65,101-102
see also Indicators
Dial Test Indicator Sets 63
see also Indicators
Dial, Travel Indicator 42, 57-59, 61, 64
see also Indicators
Diamond & CBN Wheels
6A2C - 6" Plain Cut 347
D11A2 - Flaring Cup 347
D11V9 - Flaring Cup 347
D12V9 - Dish 347
D1A1 - Straight Style 347
D1A1R - Cut-Off 347
Diamond Dressers 349-350
see also Dressers
Diamond Pin Sets 132
Diamond Wheel Brake 351
Die Grinders & Sets 369
see also Air Tools
Die Stocks & Holders 123
Dies, Hex Rethreading 120
Dies, Hexagon Pipe 120
Dies, Round Split 121
Digital Angle Gage 78
see also Angle Gages
Digital Angle Gages 78
Digital/Electronic Calipers
1" (Snap Caliper) 12
12" 7-11, 13, 15
20" 13, 15
24" 13-15
4" 7
40" 13, 15
6" 2A, 6-12
60" 13-14
8" 7-11
80" 14
Brake Drum Gage 15
Digital/Mechanical Outside Micrometers 23,26,28
see also Outside/Mechanical Micrometers
Dividing Heads 303-305, 360
Dividing Plates & Flanges 291, 295-297, 302
see also Tables
Double End End Mills 228
see also Edge Finders
Double End 4-Flute End Mills 136
see also HSS, Coated & Cobalt End Mills
Dovetail Cutters 147
Dovetail Cutters (HSS) 139
see also Cutters (HSS)
Drawbar Hammers 227
see also Milling Accessories
Drawbars 227
Dressers
Diamond 349-350
Punch Former 344-345
Radius & Angle 345-346
Sine 346
Universal Wheel 345
Drift/Center Keys 233
see also Drill Chuck Accessories
Drill Chuck Accessories
4-In-1 Master Keys 259-260
Drift/Center Keys 233
Removal Wedges 260
Replacement Keys 259
Drill Chucks
Drill Chucks with Keys 255, 258-259
General 257
Integral Shank Drill Chucks 256-257
Keyless Drill Chucks 255-256
Pin Chucks 260, 378
Drill Guide 35, 395
Drill Press Vises
Angle & Tilt Vises 288
Drill Press With Mounting Lug 287
General 285-286
Plain Drill Press Vises 287
Quick Slide Vises 285, 287-288
Drill Press Vises With Mounting Lug 287
see also Drill Press Vises
Drills, Jobber Length
Cobalt 105
HSS - Fractional 105
HSS - Metric 105
Sets 105
Solid Carbide 105
Drills, Combined Drill & Countersinks
Long Length 109-110
Sets 108-110
Standard Length 108-110
Drills, Silver & Deming 107
Drive Pin Punches 373, 377-378
see also Punch & Chisel Sets

E

Edge Finders
Double End 228
Electronic 229
Single End 228
Wiggler or Center Finder Set 228
Z Type 228
Ellipse Handle, Revolving 383
see also Handles & Knobs
End Mills
HSS, Coated & Cobalt
Ball Nose - 2-Flute 136

INDEX

Center Cutting 2-Flute 135
Center Cutting 4-Flute 135-136
Corner Rounding 134
Double End 4-Flute 136
Fine Pitch Roughing - Cobalt 137
Roughing - Cobalt 137
Sets (All Styles) 134, 136
Solid Carbide 137
End Mills (Indexable)
90 Degree Square - ANGX 152
Chamfering 146
R-8 148
Straight Shank - APKT Inserts 149-150
Straight Shank - TP Inserts 148-150, 152-153
Engineer's Squares 73
see also Squares
ER - Straight Shank Collet Chucks 249,253,310
see also ER Collet Chucks
ER - V-Flange Collet Chucks 250
see also ER Collet Chucks
ER Collet Chuck Accessories
Mini ER Chuck Nuts 248
Mini ER Chuck Wrenches 248
Standard ER Chuck Nuts 247-248
Standard ER Chuck Wrenches 248
ER Collet Chucks
ER - NMTB 236, 249
ER - R8 249
ER - Sets 251-252
ER - Straight Shank 249, 253, 310
ER - V-Flange 250
ER to JT 250, 254
ER- Fixtures 253, 326
ER- MT 250
ER-5C 250, 303
ER-BT 250
ER Fixtures 253, 326
see also ER Collet Chucks
Expanding Arbors 313
see also Arbors & Mandrels
Expanding Mandrels 313
see also Arbors & Mandrels
Extended Point Live Centers 340, 342
see also Dead & Live Centers
External Threading Holders 156-159, 162
see also Threading Holders

F

Face Mills
45 Degree Square - ONHU 153
45 Degree Square - SCMT 154
45 Degree Square - SEHT 153-154
90 Degree Square - ANGX 152
90 Degree Square - APKT 150-151
90 Degree Square - TPG 151
Feeler Gages 34
Files 132
Fixtures & Indexers/Spacers
Collet Block Set 310
Horizontal & Vertical Collet Fixtures 310, 312
Rotary Indexing Fixtures/Spacers 301-302
Spin Jig 311-312
Super Rapid Indexer 300
Flanged Nuts 264, 266
see also Clamping Kits & Components
Flat End Handle 383
see also Handles & Knobs
Flexible Arm Magnetic Base 50-51
see also Indicator Holders & Stands
Flexible Rules - Satin Chrome 70
see also Rules/Scales
Flexible Rules - Stainless Steel 70
see also Rules/Scales
Fly Cutters 143-144
Front Mount Lathe Chucks 299,303-305,317-318
see also Lathe Chucks

G

Gage Ball Sets 85
Gage Block Accessories 85
see also Gage Blocks
Gage Block Micrometer Checking Sets 19
see also Gage Blocks
Gage Blocks
Gage Block Accessories 85
Gage Block Micrometer Checking Sets 19
General 84-85
Rectangular - Gage Block Sets 84
Square Gage Block Sets 85
Gages
Angle
Digital Angle Gage 78
Precision Angle Gage Set 33
Bore
Dial Bore Gages 42
Taper Bore Gages 40
Center 34
Chamfer 111
Depth
Caliper/Electronic Depth Gages 29
Dial Depth Gage 29
Micrometer/Electronic Depth Gages 30
Micrometer/Vernier Depth Gages 29-30
Digital Angle 78
Feeler 34
Height
Dial Height Gages 79, 81
Electronic Height Gages 79-80
Height Gage Attachments & Kits 68
Multi 392
Pin
Individual Pin Gages 45-46, 85
Metric 85
Pin Gage Cases 44
Pin Gage Handles 43
Pin Gage Inch Sets 43-44
Pin Gage Library/Cabinet Sets 44
Pin Gage Metric Sets 43
Radius 33, 70
Ring
Inch Ring Gages 38
Metric Ring Gages 38
Screw Pitch & Thread 36-37
Small Hole 41
Surface
Steel Surface Gages 74
Surface Roughness Gages 103
Telescoping 33, 39-41
Thickness 19
Thread Plug
Inch Thread Plug Gages 38
Metric Thread Plug Gages 38
Wire Measuring 35-36
Gran Check 52
see also Indicator Holders & Stands
Granite Squares 83
see also Squares
Grinding Accessories 310
Grinding Gage 34
Grip Holder for Indicators 68
see also Indicator Accessories

H

Hammers
Brass 378, 381
Copper 379
Dead Blow 379
Hand Knobs 383
see also Handles & Knobs
Hand Taps 118
see also Taps
Hand Tools
Tape Measure 371
Torque Wrenches 382
Handles & Knobs
Adjustable Hand Lever 383
Ball Knob 383
Ellipse Handle, Revolving 383
Flat End Handle 383
Hand Knob 383
Revolving Handle 383
Hard Jaws, Vise 270, 272
see also Vise Accessories & Jaws
Hardness Tester & Accessories 1A, 104
Heads, Micrometer 19
see also Micrometer Accessories
Height Gage Attachments & Kits 68
Height Gages
Dial Height Gages 79, 81
Electronic Height Gages 79-80
Height Gage Attachments & Kits 68
Helical Countersinks & Deburring Tools 111, 113
see also Countersinks & Deburring Tools
Hi-Spot Blue 372
see also Marking Supplies & Equipment
Hobby & Mini Quick Change Sets 331-332, 334
see also Quick Change Tools
Hoist Rings 306
Holders
Countersink & Chamfering 146
Threading
External 156-159, 162
Internal 157
Turning Tool
CTGPR 177
DCLNR 177
DTGNR 178
DTJNR 178
MCLNR 172, 177-179
MDJN 179
MRGN 180
MSDNN 180
MSKNR 179
MSRNR 181
MTENN 181
MTFNR 182
MTGNR 182
MTJNR 183
MVJN 183
MVVNN 184
MWLN 184-185
SCLCR 185
SDJCR 186
Sets 143, 165-168
SRDCNR 186
STGCR 186
SVJBR 186

INDEX

Holders & Sets, Deburring 131-132
see also Deburring Tools
Holders - Double End 145
see also Boring Bars
Hook Rules 69
see also Rules/Scales
Horizontal & Vertical Collet Fixtures 310, 312
see also Fixtures & Indexers/Spacers
HSS - Fractional Drills 105
see also Drills, Jobber Length
HSS - Taps 118
HSS, Coated & Cobalt End Mills
Ball Nose - 2-Flute 136
Center Cutting 2-Flute 135
Center Cutting 4-Flute 135-136
Corner Rounding 134
Double End 4-Flute 136
Fine Pitch Roughing - Cobalt 137
Roughing - Cobalt 137
Sets (All Styles) 134, 136
Hydraulic Chucks 235, 314

I

Indicator Accessories
Axial Support 67
Backs 51, 56, 65
Clamps 67-68
Conversion Point 56
Grip Holder 68
Mini Universal Arm 3A
Points & Kits 56, 58-59, 63
Uni Arm & Uni Arm Extensions 68
Indicator Holders & Stands
Centered V-Magnet (Base Only) 51
Contour Magnetic Base 51
Flexible Arm Magnetic Base 50-51
Gran Check 52
Magnetic Back - Screw On 51
Magnetic Base with Dovetail Clamp 49-50
Mini Magnetic Base 50-51
Mity Mag 51
On/Off Magnetic Bases 47-48, 50
Quill Clamp 67
Sets - Mag Base & Indicator 51, 53-54, 101
Swivel Head Clamping Holders 68
Universal Holder Magnetic Base 48-49
Universal Measuring Stand 49, 52
Indicators
Centering 66
Dial Travel 42, 57-59, 60-61, 64
Dial Test 51, 57, 60-61, 63-65, 101-102
Dial Test Sets 63
Digit Electronic 62
Electronic 60, 62
Inserts
ANGX 193
APKT 149-151, 193
CCMT 147,167-169,193-194,197,205,211
CM 199
CNMA 194
CNMG 195-196
CNMM 196
Cut-Off Inserts 161, 163, 167, 216-217
DCMT 167-168, 197
DNMA 197
DNMG 198
DPMT 199
GTN & GTR 163, 216
JCL 168
JCQ 168
KNUX 199
MT 196
ONHU08 153
PM 146, 204
RCKT 199
RDKW 200
RNMG 200
SCMT 146, 154, 168, 200-201
SD 201
SEET 154, 201
SEHT 154, 201
SEKT 153
SNKN 201-202
SNMA 202
SNMG 202-204
SPG 204
SPKN 204
SPU 205
TCMT 146, 166-167, 205, 332
TDEX 147, 205
Threading and Grooving - External 129-130, 155-156, 167, 213-215, 226-230
Threading and Grooving - Internal 155-156, 213-225
TNMA 158, 206, 215
TNMG 206-208
TNMM 208
TPG 148, 209
TPGB 208
TPGH 208
TPGN 148, 159, 162, 209, 216
TPGW 209
TPKN 209
TPMC 158, 206, 214-215
TPUN 210
TT/TPMM 209
VBMT 210
VCMT 168, 210
VNMG 211
VNMS 212
WCMT 168, 212
WCMX 167-168, 212
WNMA 212
WNMG 212-213
Inside Micrometers 31-32
Inspection Parallels 91
see also Parallels
Inspection Tool Kits 4, 17, 53, 55
Integral Shank - Grooving Holders 164
see also Cut-Off & Grooving Tooling
Integral Shank Drill Chucks 256-257
see also Drill Chucks
Interchangeable Anvil Micrometers 29
see also Outside/Mechanical Micrometers
Interchangeable Point Live Center Set 340
see also Dead & Live Centers
Internal Dial Caliper Gage 41
Internal Threading Holders 157
see also Threading Holders

J

Jack Screws & Sets 261
Jaw Boring Rings 327
see also Lathe Accessories Chucks

K

KDK Style Quick Change Tools 239, 329-330
see also Tool Post Equipment
Keyless Drill Chucks 255-256
see also Drill Chucks
Keyseat Cutters (HSS) 138
see also Cutters (HSS)
Keyway Broaches 141-142
see also Broaches
Knee Feed Adapters 227
see also Milling Accessories
Knurling Tools 335-336

L

Lamps 361-363
see also Lighting
Lathe Chuck Accessories
5C Mounts 324
Backplates - A Mount 324
Backplates - D Mount 324
Backplates - L Mount 324
Backplates - Threaded 3 Jaw 318, 323
Backplates - Threaded 4 Jaw 323
Backplates - Threaded No Hole 3 & 4 Jaw 323
Backplates - Unthreaded 323
Jaw Boring Rings 327
Lathe Chuck Jaws 325, 327-328
Self-Ejecting Wrenches 326
Standard Wrenches 326
Lathe Chucks
5C Mount 325
D-Mount 3-Jaw 319
D-Mount 4-Jaw 321-322
Front Mount 299, 303-305, 317-318
Morse Taper Mount 324
Plain Back - 3 Jaw 299, 305, 317-318
Plain Back - 4 Jaw 320-321
Plain Back - 6 Jaw 320
Self Centering 299, 301, 322
Lathe Dogs 338
Lathe Mandrels 314
see also Arbors & Mandrels
Lathe Turning Attachments 338
Levels
Digital Electronic 75
Master Precision 75-76
Square Precision 76
Lifting & Moving Products 233, 261, 306
Lighting 361-363
Lock Pins 148, 187-188
see also Replacement Parts
Long Length Drills 109-110
see also Drills, Combined Drill & Countersinks

M

Magnetic Back - Screw On 51
see also Indicator Holders & Stands
Magnetic Base with Dovetail Clamp 49-50
see also Indicator Holders & Stands
Magnetic Chucks 352-353
Magnetic Sine Bar 353
see also Sine Type Tooling & Vises
Magnetic V-Blocks 3A, 96
see also V-Blocks
Magnetic V-Blocks & Parallels 96, 352
see also V-Blocks
Magnetic Vise Jaws 270
see also Vise Accessories & Jaws
Magnifiers Optical Enhancements 104, 361
see also Optical Enhancements
Mallets 378-379, 381
see also Hammers

INDEX

Mandrels for Cut-Off Wheels 370
see also Air Tool Accessories
Marking Rules 389, 391-395
see also Rules/Scales
Marking Supplies & Equipment
Brite-Mark & Markal 372
Hi-Spot Blue 372
Steel Stamps 380
Master Precision Levels 75-76
see also Levels
Metric Ring Gages 38
see also Ring Gages
Metric Spiral Flute Taps 118
see also Taps
Metric Spiral Point Taps 118
see also Taps
Metric Thread Plug Gages 38
see also Thread Plug Gages
Micrometer Accessories
Anvil Attachment 20
Ball Attachment 20
Heads 19
Stand 20
Thread Measuring Wire Set 24
Thread Triangle 24
Micrometer Stands 20
Micrometer/Electronic Depth Gages 30
see also Depth Gages
Micrometer/Vernier Depth Gages 29-30
see also Depth Gages
Micrometers
Inside 31-32
Outside/Electronic 27
Outside/Mechanical
Blade 21, 24
Digital/Mechanical 23, 26, 28
DO 27-28
Interchangeable Anvil 29
Outside Cases 20
Outside Spline 25
Outside Vernier - Individual 21-22
Outside Vernier - Metric 23
Outside Vernier - Sets 22-23
Point 25
Screw Thread 24
Tubing 26, 31
Mill Stop 268
see also Vise Accessories & Jaws
Milling Accessories
Drawbar Hammers 227
Knee Feed Adapters 227
Quill Feed Handle 227
Quill Stop 227
Milling Machine Vises
2 Pc. Quick Clamp Vise 284-285
Angle Vises 285
Anglock Type 272-275
CNC Self-Centering 275, 279-283
CNC Super-Lock 276-278
CNC Twin-Lock 279
General 274-275, 278
Shaft/Round Part Vise 285
Mini ER Chuck Nuts 248
see also ER Collet Accessories Chucks
Mini ER Chuck Wrenches 248
see also ER Collet Accessories Chucks
Mini Magnetic Base 50-51
see also Indicator Holders & Stands
Mity Mag 51
see also Indicator Holders & Stands
Morse Taper End Mill Holders 234
see also Adapters & Holders
Morse Taper Mount Lathe Chucks 324
see also Lathe Chucks
Morse Taper Sets 234
see also Collets
Morse Taper Turret Tailstocks 337
see also Tailstocks
Mufflers Pneumatic 370
see also Pneumatic
Multi Gages 392

N

NMTB End Mill Holders 236
see also Adapters & Holders
NMTB Shell End Mill Holders 236
see also Adapters & Holders
NMTB to JT Arbors for Drill Chucks 236
see also Arbors for Drills
Notchers 385
NT30 Collet Chuck Set 2A

O

On/Off Magnetic Bases (Indicator) 47-48, 50
see also Indicator Holders & Stands
Optical Enhancements
Magnifiers 104, 361
Pocket Comparator 104
Optical Punch & Chisel Sets 3A, 375
see also Punch & Chisel Sets
Outside/Electronic Micrometers 27
Outside/Mechanical Micrometers
Blade 21, 24
Digital/Mechanical 23, 26-28
Interchangeable Anvil 29
Micrometer Cases 20
Outside Spline 25
Outside Vernier - Individual 21-22
Outside Vernier - Metric 23
Outside Vernier - Sets 22-23
Point 25
Spline 25
Screw Thread 24
Tubing 26, 31

P

Pan & Box Brakes 385
Parallel (P-Type) Cut-Off Blades 164-165
see also Cut-Off Blades
Parallels
Adjustable 92
Inspection 91
Precision Sets 90-91
Ultra Thin Set 3A, 92
Wavy Set 92
Pin Chucks 260, 378
see also Drill Chucks
Pin Gages & Accessories
Individual Pin Gages 45-46, 85
Metric 85
Pin Gage Cases 44
Pin Gage Handles 43
Pin Gage Inch Sets 43-44
Pin Gage Library/Cabinet Sets 44
Pin Gage Metric Sets 43
Plain Back - 3 Jaw Lathe Chucks 299,305,317-318
see also Lathe Chucks
Plain Back - 4 Jaw Lathe Chucks 320-321
see also Lathe Chucks
Plain Back - 6 Jaw Lathe Chucks 320
see also Lathe Chucks
Planer & Shaper Gage 73
Planes, Woodworking 398
see also Woodworking
Plastic Calipers 1, 9
Pneumatic Accessories
Air Blow Guns 370
Connectors & Valves 370
Couplers 370
Exhaust Mufflers 370
Replacement Collets 370
Pocket Comparator 104
see also Optical Enhancements
Point Outside/Mechanical Micrometers 25
see also Outside/Mechanical Micrometers
Points & Kits (Indicator) 56, 58-59, 63
see also Indicator Accessories
Power Feeds 227
Precision Angle Gage Set 33
see also Angle Gages
Precision Sets 90-91
see also Parallels
Presetters & Zero Setters 237-238
Protractors 70-71, 77, 393, 396
Pull Studs/Retention Knobs
Quill Stop 238-242
Pump Kits, Coolant 366-368
see also Coolant & Fluid Control
Punch & Chisel Sets
Blind Hole Spotters 376
Center 373, 378, 381
Drive Pin 373, 377-378
Optical 3A, 375
Punch & Chisel 371, 377
Transfer Sets & Screws 374, 376
Punch Former 344-345
see also Dressers
Punch Grinders 344

Q

Quick Change Tool Posts & Holders
40-Position Quick Change 334
Aloris Style Holders 164, 332-333
Aloris Style Posts 332
Aloris Style Sets 331-332
HHIP Pro-Series 331-333
Hobby & Mini Sets 331-332, 334
KDK Style 239, 329-330
Quick Slide Vises 285, 287-288
see also Drill Press Vises
Quill Clamp 67
see also Indicator Holders & Stands
Quill Feed Handle 227
see also Milling Accessories
Quill Stop 227, 238-242
see also Pull Studs/Retention Knobs

R

R8 End Mill Holders 231
see also Adapters & Holders
R8 Metric 230
see also Collets
R8 Shell End Mill Holders 154, 232
see also Adapters & Holders
R8 Stub Mill Holders 232
see also Adapters & Holders

INDEX

R8 to MT Sleeves 233
see also Adapters & Holders
Radius & Angle Dressers 345-346
see also Dressers
Radius Gages 33, 70
Reamers 115-117
Rectangular - Gage Block Sets 84
see also Gage Blocks
Rectangular Tool Bits 144
see also Tool Bits
Refractometer Coolant & Fluid Control 365
see also Coolant & Fluid Control
Regulators & Separator (Pneumatic) 370
see also Air Tool Accessories
Removal Wedges 260
see also Drill Accessories Chucks
Replacement Handles (Vise) 271
see also Vise Accessories & Jaws
Replacement Keys for Drill Chucks 259
see also Drill Accessories Chucks
Replacement Parts for Toolholders
Clamps 158-159, 177, 188, 216
Lock Pins 148, 187-188
Screws 146-151, 153-154, 158, 166-169, 177, 187-188
SG 158, 177, 188
Shim Pins 188
Shims 154, 177, 188
Wrenches 146-147, 149-151,154, 168-169, 187
Retention Knobs 238-242
Revolving Bed Tailstocks 324
see also Tailstocks
Revolving Handle 383
see also Handles & Knobs
Right Angle Attachment 227
Rigid Rules - Satin Chrome 4,17,53,55,70,83
see also Inspection Tool Kits
Ring Gages
Inch Ring Gages 38
Metric Ring Gages 38
Rotary Chucks 300
Rotary Indexing Fixtures/Spacers 301-302
see also Fixtures & Indexers/Spacers
Rotary Table Vises 291
Rotary Tables 291-295, 297
see also Tables
Round Tool Bits 143
see also Tool Bits
Rubber Flex Collets 128
see also Collets
Rules/Scales
Flexible Rules - Satin Chrome 70
Flexible Rules - Stainless Steel 70
Hook Rules 69
Marking Rules 389, 391-395
Rigid Rules - Satin Chrome 70

S

Sanders (Air Tools) 370
see also Air Tools
Saw Arbors 140, 232
see also Arbors & Mandrels
Saws 138, 140
Scales 69-70, 389, 391-395
see also Rules/Scales
Screw Extractors 130
Screw Jacks & Sets 261
Screw Pitch & Thread Gages 36-37
Screw Thread Micrometers 24
see also Outside/Mechanical Micrometers
Screw-Fed Toolmaker's Vises 354-355, 358-359
see also Toolmaker's Vises
Screwless Toolmaker's Vises 354, 357-360
see also Toolmaker's Vises
Screws, Replacement Parts 146-151, 153-154, 158, 166-169, 177, 187-188
see also Replacement Parts
Screws, Tang IFC, 342
Scribers 373
Self-Ejecting Wrenches 326
see also Lathe Accessories Chucks
Sensitive Hand Drill Feed 255
see also Arbors for Drills
Set Up Blocks 397
see also Blocks or Woodworking
Shaft/Round Part Vise 285
see also Milling Machine Vises
Shanks for Boring Heads 221-222, 225
see also Boring Heads
Sheilds 363
Shim Pins 188
see also Replacement Parts
Shims for Broaches 142
see also Broaches
Shims for Toolholders 154, 177, 188
see also Replacement Parts
Shop Apron 372
Sine Bars 86
Sine Plates 353
Sine Type Tooling & Vises
Magnetic Sine Bar 353
Sine Vise 355-356
Sine Vise 355-356
see also Sine Type Tooling & Vises
Single End Edge Finders 228
see also Edge Finders
Single Flute C'sinks & Deburring Tools 111-113
see also Countersinks & Deburring Tools
SK Lyndex Style Collets 254
see also Collets
Sleeves & Sockets for Drills 233-234
Slide Tables (X-Y) 289
see also Tables
Slotted - Open End Angle Plates 97-98
see also Angle Plates
Slotted - Webbed End Angle Plates 98
see also Angle Plates
Small Hole Gages 41
Soft Jaws 269, 325
see also Vise Accessories & Jaws
Solid Carbide Drills 105
see also Drills, Jobber Length
Solid Carbide End Mills 137
Space Blocks 86
see also Blocks
Speed Handle (Vise) 271
see also Vise Accessories & Jaws
Spin Jig 311-312
see also Fixtures & Indexers/Spacers
Spindle Squares 228
see also Squares
Spindle Taper Wipes 237
see also Adapters & Holders
Spiral Flute Bottom Taps 118
see also Taps
Spiral Point Plug Taps 118
see also Taps
Spring Calipers 69
Square Broaches 142
see also Broaches
Square Gage Block Sets 85
see also Gage Blocks
Square Precision Levels 76
see also Levels
Square, Cobalt Tool Bits 144
see also Tool Bits
Squares
Bevel Edge 74
Combination 72-74, 83, 394
Cylindrical 74
Engineer's 73
Granite 83
Levels 77
Spindle 228
Steel Squares & Sets 70, 73-74
Stand, Micrometer 20
see also Micrometer Accessories
Steel Squares & Sets 70, 73-74
see also Squares
Steel Stamps 380
see also Marking Supplies & Equipment
Steel Surface Gages 74
see also Surface Gages
Stepped & Steel Angle Plates 96
see also Angle Plates
Striking Tools 378-379, 381
see also Hammers
Style A Tool Bits 143
see also Tool Bits, Carbide Tipped
Style C Tool Bits 143
see also Tool Bits, Carbide Tipped
Style D Tool Bits 143
see also Tool Bits, Carbide Tipped
Style E Tool Bits 143
see also Tool Bits, Carbide Tipped
Super Rapid Indexer 300
see also Fixtures & Indexers/Spacers
Super Vee V-Blocks 93
see also V-Blocks
Surface Gages
General 37
Steel Surface Gages 74
Surface Roughness Gages 103
Surface Plate Stands 33, 39-41, 81
see also Telescoping Gages
Surface Plates
Cast Iron Hand Scraped 83
Surface Plate Stands 81
Surface Plates 81-82
Surface Roughness Gages 103
see also Surface Gages
Surface Roughness Testers 103
Swivel Head Clamping Holders (Indicators) 68
see also Indicator Holders & Stands

T

T-Slot Bolts 264
see also Clamping Kits & Components
T-Slot Cleaner 262
T-Slot Cutters (HSS) 138
see also Cutters (HSS)
T-Slot Nuts 264, 266
see also Clamping Kits & Components
Tables
Cross Slide Vise 288
Dividing Plates & Flanges 291, 295-297, 302
Rotary Tables 291-295, 297
Slide Tables (X-Y) 1A, 289
Tilting Rotary Tables 296, 298
Tilting Tables 290
Tailstocks
Adjustable 123, 260, 295-296, 311, 337
Morse Taper Turret 337

INDEX

Revolving Beds 324
Tang Screws IFC, 342
Tap & Die Sets 122-124
Tap & Drill Sets 106
Tap Wrenches 124-126
Tape 372
Tape Measures 371
see also Hand Tools
Taper Bore Gages 40
see also Bore Gages
Taper Drills 107
Tapping Attachments 128
Tapping Guides & Hand Tappers 125-128
Tapping Heads 128
Taps
Hand Taps 118
Metric Spiral Flute 118
Metric Spiral Point 118
Pipe 119
Spiral Flute Bottom 118
Spiral Point Plug 118
Thread Repair Kits 129-130, 132
Telescoping Gages 33, 39-41
Test/Alignment Mandrels 102
see also Arbors & Mandrels
Thickness Gages 19
Thread Measuring Wire Set 24
see also Micrometer Accessories
Tester, Hardness 1A, 104
Thread Plug Gages
General 39
Inch Thread Plug Gages 38
Metric Thread Plug Gages 38
Thread Repair Kits 129-130, 132
see also Taps
Thread Triangle 24
see also Micrometer Accessories
Threading and Grooving - External 129-130, 155-156, 167, 213-215, 226-230
see also Inserts
Threading and Grooving - Internal 155-156,213-225
see also Inserts
Threading Holders
External 156-159, 162
Internal 157
Tilting Rotary Tables 296, 298
see also Tables
Tilting Tables 290
see also Tables
Tool Bits
Carbide Tipped 143
Rectangular 144
Round 143
Square, Long Length Cobalt 144
Square, Long Length HSS 144
Square, Standard Length Cobalt 144
Square, Standard Length HSS 144
Tool Holders, Cut-Off 165
Tool Holders, Tool Bit 160-161
Tool Post Equipment
40-Position Quick Change 334
Aloris Style Holders 164, 332-333
Aloris Style Posts 332
Aloris Style Sets 331-332
HHIP Pro-Series 331-333
Hobby & Mini Sets 331-332, 334
KDK Style 239, 329-330
Tool Setters & Tightening Fixtures 237-238, 336
Tooling Racks 238
Toolmaker's Vises
Screw-Fed 354-355, 358-359
Screwless 354, 357-360
Universal Movement 356
Torque Wrenches 382
see also Hand Tools
Torx Driver & Wrenches 382
see also Wrenches
Transfer Punch Sets & Screws 374, 376
see also Punch & Chisel Sets
Tubing Outside/Mechanical Micrometers 26, 31
see also Outside/Mechanical Micrometers
Turning Tool Holders
CTGPR 177
DCLNR 177
DTGNR 178
DTJNR 178
MCLNR 172, 177-179
MDJN 179
MRGN 180
MSDNN 180
MSKNR 179
MSRNR 181
MTENN 181
MTFNR 182
MTGNR 182
MTJNR 183
MVJN 183
MVVNN 184
MWLN 184-185
SCLCR 185
SDJCR 186
Sets 143, 165-168
SRDCNR 186
STGCR 186
SVJBR 186

U

Ultra Thin Parallel Set 3A, 92
see also Parallels
Uni Arm & Extensions (Indicator) 68
see also Indicator Accessories
Universal Holder Magnetic Base 48-49
see also Indicator Holders & Stands
Universal Measuring Stand 49, 52
see also Indicator Holders & Stands
Universal Movement Toolmaker's Vise 356
see also Toolmaker's Vises
Universal Wheel Dressers 345
see also Dressers

V

V-Blocks
4-Way Vee 95
Cast Iron & Granite 83, 95
General 94
Magnetic 3A, 96
Magnetic V-Blocks & Parallels 96, 352
Super Vee 93
Triple Vee 95
V-Blocks & Clamp Sets 88, 93-94
V-Blocks & Clamp Sets 88, 93-94
see also V-Blocks
V-Flange Arbors for Drills 242-243
see also Arbors for Drills
V-Flange End Mill Holders 243
see also Adapters & Holders
V-Flange MT Adapters 243
see also Adapters & Holders
V-Flange Shell End Mill Holders 151, 243
see also Adapters & Holders
V-Shape Vise Jaw 269
see also Vise Accessories & Jaws
Vehicle Maintenance 16, 34
Vernier Calipers 1-3
Vise Accessories
Jaw Blocks 272
Jaws 269-270, 272
Magnetic Vise Jaws 270
Mill Stop 268
Handles, Replacement 271
Soft Jaws 269, 325
Speed Handle 271
Swivel Bases 272
V-Shape Vise Jaw 269
Work Stops 267-268
Vises
Bench 384
Drill Press
Angle & Tilt Vises 288
Drill Press With Mounting Lug 287
General 285-286
Plain Drill Press Vises 287
Quick Slide Vises 285, 287-288
Milling Machine
2 Pc. Quick Clamp Vise 284-285
Angle Vises 285
Anglock Type 272-273
CNC Self-Centering 275, 279-283
CNC Super-Lock 276-278
CNC Twin-Lock 279
General 274-275, 278
Shaft/Round Part Vise 285
Rotary Table 291
Toolmaker's
Screw-Fed 354-355, 358-359
Screwless 354, 357-360
Universal Movement 356

W

W Style Collets 235
see also Collets
Wavy Parallel Set 92
see also Parallels
Welding Plier 372
Wheel Adapters 348
Wheel Balancing Stands 349
Wiggler or Center Finder Set 228
see also Edge Finders
Wire Measuring Gages 35-36
Woodworking
Cutters 337
Kits 398
Planes 398
Work Stops 267-268
see also Vise Accessories & Jaws
Wrenches
Combination 382
Combination Sets 382
Drill Chuck Keys 259-260
Lathe Chuck 326
Torx Driver & Wrenches 382
Wrenches, Air Tools 369
see also Air Tools
Wrenches, Replacement Parts 146-147, 149-151, 154, 168-169, 187
see also Replacement Parts

Z

Z Type Edge Finders 228
see also Edge Finders
Zero-Flute Countersinks & Deburring Tools 111
see also Countersinks & Deburring Tools



- PRECISION MEASURING TOOLS
- CARBIDE INSERTS
- CUTTING TOOLS
- MACHINE TOOL ACCESSORIES
- MRO & SHOP SUPPLIES
- AIR, POWER & HAND TOOLS
- WOODWORKING