

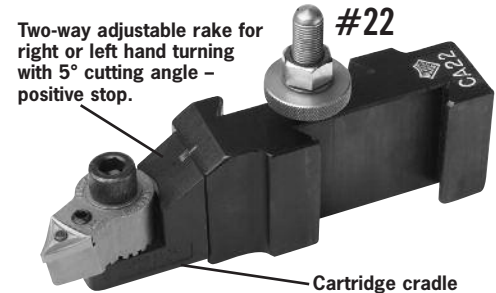
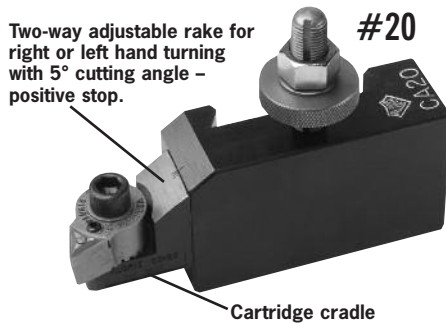
UNIVERSAL TOOL HOLDERS #20, #30, #22

FOR RIGHT OR LEFT HAND TURNING, FACING, CHAMFERING AND BORING (#22)

A unique design for models #20 & #30 holders provides for many angular turning, contouring and chamfering operations. The cartridge has 12 indexing positions at 15° intervals. See illustration below.

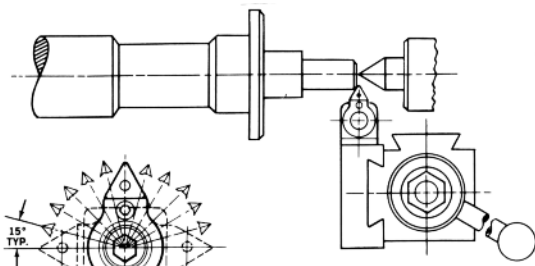
The model #22 with its two dovetail design leads to a wide range of applications by permitting front and rear turning, contouring, boring and facing operations.

All holders assure proper cutting edge and clearance angles at all indexing positions.

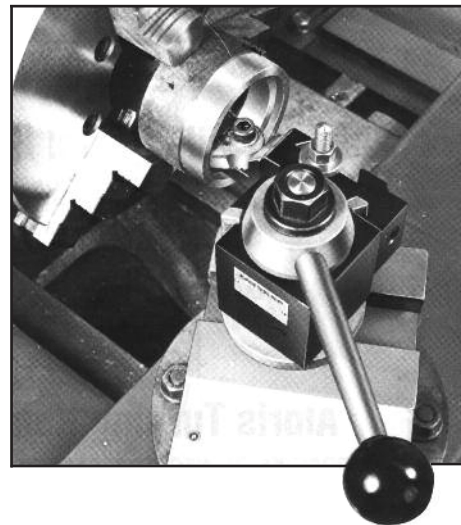


Tool Steel Cartridge adjusts every 15° for right or left hand turning, facing or chamfering. 12 positive lock positions. Exclusive positive lock with 2-way force holding insert down and tight against shoulder. Standard triangular carbide insert has 6 cutting edges.

ILLUSTRATIONS SHOW WHAT ONE SINGLE TOOL CAN ACCOMPLISH

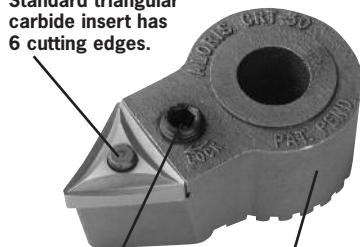


CARTRIDGE has 12 indexing positions at 15° intervals. This means many angular turning and chamfering jobs can be done faster and easier.



CARTRIDGE CRT-20, CRT-30, CRT-40 UNITS

Standard triangular carbide insert has 6 cutting edges.



Exclusive positive lock with 2-way force holding insert down and tight against shoulder.

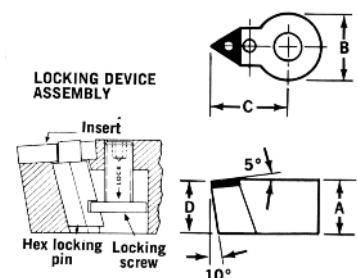
Tool Steel Cartridge adjuster every 15° for right or left hand turning facing or chamfering. 12 positive lock positions.

Can be easily adapted on bars, other special tools, to meet any customer's specifications. Cartridges can be supplied separately or combined with cartridge cradle.


















CARTRIDGE ORDER #	DIMENSIONS				INSERT SIZE	
	A	B	C	D	I.C.	THICK
CRT-20*	5/8	1"	1 1/8	9/16	3/8	1/8 - 3/16
CRT-30*	7/8	1 1/4	1 1/16	25/32	1/2	3/16 - 1/4
CRT-40*	1"	1 1/4	1 13/16	15/16	5/8	1/4 - 5/16

Choose from carbide style TNMS, TNMP, or TNMG. See page 38.

Cartridge CRT-30 and CRT-40 are interchangeable.



ORDERING INFORMATION FOR #20, #30, #22

	AXA SERIES	BXA SERIES	CXA SERIES	CA SERIES	DA SERIES	EA SERIES
UNIVERSAL TOOL HOLDER #20 Holder supplied as shown less insert. 	ORDER # AXA-20	ORDER # BX-20	ORDER # CX-20	ORDER # CA-20		
	"A" DIM. = 1½	"A" DIM. = 1¾	"A" DIM. = 2"	"A" DIM. = 2½		
	"E" DIM. = 1⅝	"E" DIM. = 1⅜	"E" DIM. = 1⅝	"E" DIM. = 1¾		
	REPLACEMENT PARTS					
	CARTRIDGES 	ORDER # CRT-20*	ORDER # CRT-20*	ORDER # CRT-20*		
CRADLE 	ORDER # CC-20*	ORDER # CC-20*	ORDER # CC-20*	ORDER # CC-20*		
LOCK SCREW 	ORDER # LS-20*	ORDER # LS-20*	ORDER # LS-20*	ORDER # LS-20*		
HEX LOCKING PIN 	ORDER # LP-20*	ORDER # LP-20*	ORDER # LP-20*	ORDER # LP-20*		
HEIGHT ADJUSTMENT ASSEMBLY 	ORDER # AXA-HA*	ORDER # BX-HA*	ORDER # CX-HA*	ORDER # CA-HA*		
UNIVERSAL TOOL HOLDER #30 				ORDER # CA-30	ORDER # DA-30	ORDER # EA-30
				"A" DIM. = 2½	"A" DIM. = 2¾	"A" DIM. = 3
				"E" DIM. = 1⅞	"E" DIM. = 1⅞	"E" DIM. = 2⅞
	REPLACEMENT PARTS					
	CARTRIDGES 			ORDER # CRT-30*	ORDER # CRT-30*	ORDER # CRT-40*
LOCK SCREW 				ORDER # LS-30*	ORDER # LS-30*	ORDER # LS-40*
HEX LOCKING PIN 				ORDER # LP-30*	ORDER # LP-30*	ORDER # LP-40*
HEIGHT ADJUSTMENT ASSEMBLY 				ORDER # CA-HA*	ORDER # DA-HA*	ORDER # EA-HA*
UNIVERSAL TURNING & BORING HOLDER #22 	ORDER # AXA-22	ORDER # BX-22	ORDER # CX-22	ORDER # CA-22	ORDER # DA-22	ORDER # EA-22
	"A" DIM. = 1½	"A" DIM. = 1¾	"A" DIM. = 2"	"A" DIM. = 2½	"A" DIM. = 2¾	"A" DIM. = 3
	"E" DIM. = 1⅝	"E" DIM. = 1⅜	"E" DIM. = 1⅝	"E" DIM. = 1¾	"E" DIM. = 2	"E" DIM. = 2⅞
	MIN BORE DIM. = 2¼	MIN BORE DIM. = 2½	MIN BORE DIM. = 3	MIN BORE DIM. = 3½	MIN BORE DIM. = 4¼	MIN BORE DIM. = 5
	MAX BORE LENGTH = 2¼	MAX BORE LENGTH = 2¼	MAX BORE LENGTH = 2½	MAX BORE LENGTH = 2⅞	MAX BORE LENGTH = 3½	MAX BORE LENGTH = 4
	REPLACEMENT PARTS					
CARTRIDGES 	ORDER # CRT-20*	ORDER # CRT-20*	ORDER # CRT-20*	ORDER # CRT-30*	ORDER # CRT-30*	ORDER # CRT-40*
CRADLE 	ORDER # CC-20*	ORDER # CC-20*	ORDER # CC-20*	ORDER # CC-30*	ORDER # CC-30*	
LOCK SCREW 	ORDER # LS-20*	ORDER # LS-20*	ORDER # LS-20*	ORDER # LS-30*	ORDER # LS-30*	ORDER # LS-40*
HEX LOCKING PIN 	ORDER # LP-20*	ORDER # LP-20*	ORDER # LP-20*	ORDER # LP-30*	ORDER # LP-30*	ORDER # LP-40*
HEIGHT ADJUSTMENT ASSEMBLY 	ORDER # AXA-HA*	ORDER # BX-HA*	ORDER # CX-HA*	ORDER # CA-HA*	ORDER # DA-HA*	ORDER # EA-HA*