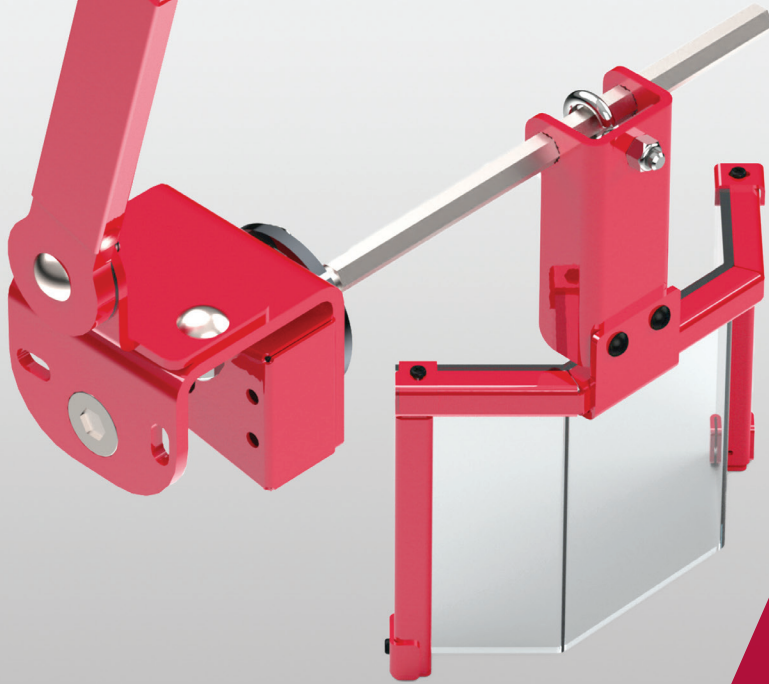




The Trusted Choice for Machine Safety



PATENT-PENDING
PROTECTOR™
SERIES SHIELDS

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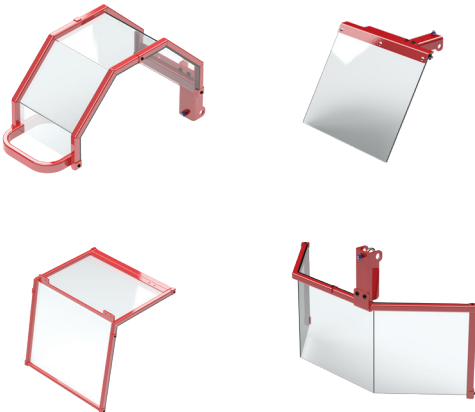
CREATING A SAFER WORK ENVIRONMENT

Rockford Systems LLC, a leader in machine safeguarding solutions, introduces PROTECTOR™ Series Shields. This highly innovative and patent-pending product line improves the safety and productivity of operators working with dangerous machinery.

CUSTOMER-DRIVEN SOLUTIONS

With over 45 years of industrial safety experience, Rockford Systems has integrated over 25,000 machine safeguarding solutions and collaborated extensively with Environmental Safety & Health (EHS) leaders, supervisors, operators and maintenance personnel across a variety of industries. We leveraged this wealth of knowledge and applications expertise into the design and production of our newest innovation:

PROTECTOR™ SERIES SHIELDS



SOLVING COMMON PROBLEMS

PROBLEM:

- » Equipment operators complain that safeguarding shields limit visibility because of reflectivity or obstruction and nearby clip-on lamps get too hot.

SOLUTION:

- » PROTECTOR Series Shields are manufactured with scratch-resistant polycarbonate and incorporate cool, bright LED lighting into the shield frame to yield superior **visibility of the work area**.

PROBLEM:

- » Supervisors report that safeguarding shields can be bypassed when shields get pushed out of the way or are tampered with, thereby making the machines unsafe to operate.

SOLUTION:

- » PROTECTOR Series Shields are offered in both non-interlocked and interlocked versions, which disengages power and **prevents a machine start-up when the shield is not closed**.
- » PROTECTOR Series Shields feature a tamper-resistant interlock enclosure and redundant safety monitoring. The safety relay monitors the interlock switch for failure, **providing a notification if the interlock has been removed or is not functioning correctly**.

PROBLEM:

- » EHS professionals need to maximize safety while minimizing expenses, thereby generating a positive return on investment (ROI).

SOLUTION:

- » PROTECTOR Series Shields are modular in design and easily configurable to tailor a custom fit for any machine application, thereby **optimizing employee safety and generating a positive ROI**.

A PATENT-PENDING, HIGH-QUALITY, HIGHLY-FEATURED LINE OF ROBUST MACHINE SAFEGUARDING SHIELDS THAT MAXIMIZE SAFETY, IMPROVE PRODUCTIVITY AND REDUCE RISK.

PROTECTOR™ SERIES FEATURES & BENEFITS

ROBUST CONSTRUCTION

PROTECTOR Series Shields are constructed of 14-gauge powder-coated steel and 3/16" shock-proof and oil-resistant polycarbonate, creating an extremely tough, rigid and durable safety shield to protect operators from flying debris, lubricants, coolants and swarf. All components carry a CE, UL and CSA certification and shields feature a limited one-year warranty. A full line of replacement polycarbonate shields is available to keep shields operating at peak efficiency.

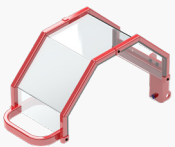
MODULAR DESIGN

PROTECTOR Series Shields are modular in design so that shield shape, size, mount, arm, offset, lighting, interlocking and safety

monitoring can be configured to provide the best solution for even the toughest machine guarding challenge. Available with various mounting options, these high-quality shields allow for reversal to address opposite-hand mounting scenarios when necessary. All shields are vertically and horizontally adjustable to clear varying work setups and table heights.

Rockford Systems configured the most popular shields for milling and drilling machines, lathes and grinders, which represent over 95 percent of all safeguarding applications. However, for those unusual applications or hard-to-guard machines, PROTECTOR Series Shields can be configured into **over 60,000 modular combinations** to ensure a precise, customized fit to improve worker safety.

Shield Options:



Octagonal Shield



Curved Shield



3 Sided Shield



2 Sided Shield



Flat Shield



Dual Flat Shield

Arm Options:



Single Pivot 3 Arms



Double Pivot 3 Arms



Single Pivot 2 Arms



Double Pivot 2 Arms

Mount Options:



Left Mount



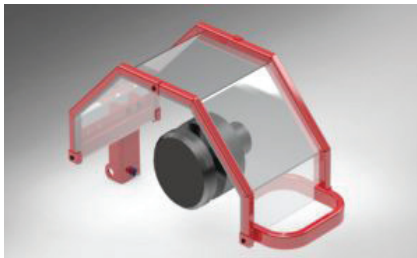
Center Mount



Right Mount

WORKSPACE SAFETY LIGHTING

PROTECTOR Series Shields can include color-changing LED lighting nested into the frame of the shield to illuminate the work area during machine operation. The LED light strip is integrated into the shield frame and each strip packs 262 Lumens of light per linear foot. For example, the PROTECTOR 28" octagonal or circular shield provides 2180 Lumens, compared to a typical clip-on work lamp that provides only 800 Lumens. Operators will appreciate the non-reflective, true-color rendering white light illuminating their work area. When the shield is moved out of the safe work position, **white LEDs switch off and red LEDs switch on, thereby providing visual indication that the shield is in the open position.** All LED lighting has been manufactured to exacting IEC IP65 outdoor/wet location standards to withstand coolant and lubricant splashes.



Lathe Chuck without Illumination



Lathe Chuck Illuminated with *WHITE LEDs* in "run" position



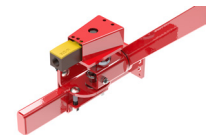
Lathe Chuck Illuminated with *RED LEDs* in "stop" position

SAFETY INTERLOCKS & MONITORING

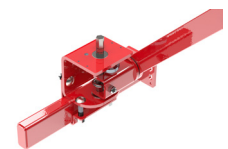
PROTECTOR Series Shields can be upgraded with a safety interlock switch or switches, dependent upon application. Interlocking shields exceed OSHA regulations and ANSI standards and are considered a best safety practice.

Shield interlocks shut off or disengage power and prevent machine start-up when the guard is not closed, thereby increasing operator safety and preventing operating bypassing. All safety-rated interlock switches are mounted in a tamper-resistant NEMA 4 housing, comply with the IEC/EN 60947 safety standard and carry IEC IP66/67 device ratings. Additional motor starter or anti-restart devices may be required when incorporating interlocking devices into the PROTECTOR Series Shields in order to ensure safe and compliant operation.

To achieve a Category 2 rating, a safety monitoring relay can be added as a redundant level of security, monitoring the integrity of the interlocking feature so that a removed or failed safety interlock will not permit unsafe operation of the machine.



Interlock



Non-Interlock

MADE IN THE USA

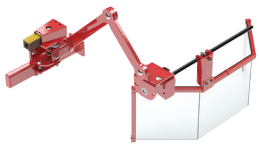
In recent months, it has become clear that complex international supply chains are not resilient to the immediate sourcing needs of organizations. PROTECTOR Series Shields are manufactured by Rockford Systems LLC in Rockford, Illinois, USA. **All shields are shipped within 2-3 weeks of order.**

CONTACT US

Our team is always ready to help customers, discuss their unique applications, and solve their machine safety problems. Call 1-800-922-7533 or visit www.rockfordsystems.com.

POPULAR CONFIGURED PROTECTOR™ SERIES SHIELDS

MILLING MACHINES



RSSC2LL202L163



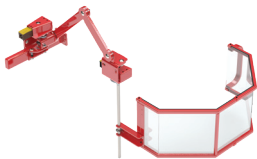
RSSD4LL202L163



RSSD4LL000L183



RSSD5LL202L163



RSSD6LL202L163



RSSE3LL202L163

DRILLING MACHINES



RSSC1LL161L103



RSSD2LL000L123

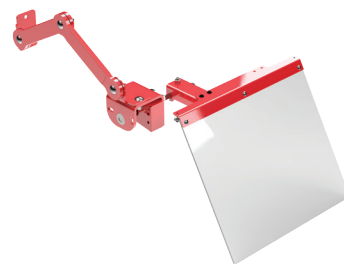


RSSD2LL000L143

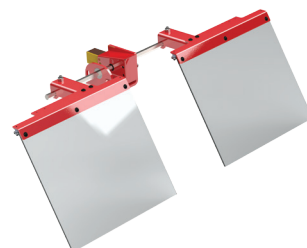


RSSD2LL000L183

GRINDERS

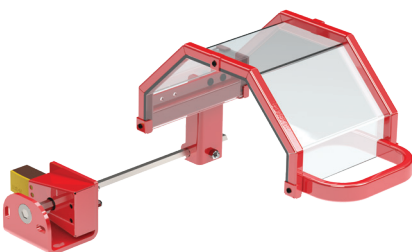


RSSA4LL161L042



RSSF3LC000LD73

LATHES



RSSD3LL000L103

CUSTOMIZABLE PROTECTOR™ SERIES SHIELDS

To create a PROTECTOR Series Shield, determine the 14-digit configured part number by following directions 1 - 6 and use the information in the **PART NUMBERING SYSTEM CHART** (see next page).

- 1 – The first 3 characters will always be RSS (Rockford Systems Shields)
- 2 – The first 3 digits will determine the type and size of the shield and LED lighting option
- 3 – Digit 4 will determine the shield mount
- 4 – The next 4 digits will determine the shield arm type, pivot, reach and interlock option
- 5 – The next 2 digits will determine the shield offset
- 6 – The last digit will determine with enclosure (interface type), depending upon the LED and interlock options selected:

If you have selected no LED, then you should select “No Enclosure” (0)

If you have selected LED and no interlock, then you should select “Lighted – Non-Interlocked Enclosure” (1)

If you have selected LED and interlock, then you should select “Lighted – Interlocked Enclosure” (2)

If you have selected LED and interlock and monitoring, then you should select “Lighted – Interlocked & Monitored Enclosure” (3)

LED Lighting?	Interlock?	Monitored?	Group 6 Option
NO	NO	NO	0
YES	NO	NO	1
NO	YES	NO	0
YES	YES	NO	2
YES	YES	YES	3

PART NUMBER EXAMPLE

RSSA1LL000X101 – Shield, Flat, 7” x 6” w/LED, Left Mount, Direct Mount w/o Interlock, 10” Offset, Lighted – Non-Interlocked Enclosure

PROTECTOR™ SERIES SHIELDS PART NUMBERING CHART

Reference the catalog or website for dimensional drawings for all shields shown below.

SYSTEM TYPE PRODUCT CATEGORY

RSS — Rockford Systems Shields

RSS XXX X XXXX XX X

SHIELDS



Flat Shield

A1X	Flat, 7" x 6"
A1L	Flat, 7" x 6" w/LED
A2X	Flat, 9" x 8"
A2L	Flat, 9" x 8" w/ LED
A3X	Flat, 14" x 12"
A3L	Flat, 14" x 12" w/LED
A4X	Flat, 16" x 14"
A4L	Flat, 16" x 14" w/LED



2 Sided Shield

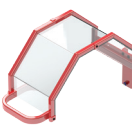
B1X	2 Sided, 14" x 12" x 12"
B1L	2 Sided, 14" x 12" x 12" w/LED
B2X	2 Sided, 16" x 14" x 12"
B2L	2 Sided, 16" x 14" x 12" w/LED

C1X	3 Sided, 8" x 6" x 2"
C1L	3 Sided, 8" x 6" x 2" w/LED
C2X	3 Sided, 24" x 9" x 6.5"
C2L	3 Sided, 24" x 9" x 6.5" w/LED
C3X	3 Sided, 28" x 12" x 8"
C3L	3 Sided, 28" x 12" x 8" w/LED



3 Sided Shield

D1X	Octagonal, 6" x 8"
D1L	Octagonal, 6" x 8" w/LED
D2X	Octagonal, 9" x 8"
D2L	Octagonal, 9" x 8" w/LED
D3X	Octagonal, 12" x 8"
D3L	Octagonal, 12" x 8" w/LED
D4X	Octagonal, 16" x 8"
D4L	Octagonal, 16" x 8" w/LED
D5X	Octagonal, 20" x 10"
D5L	Octagonal, 20" x 10" w/LED
D6X	Octagonal, 24" x 10"
D6L	Octagonal, 24" x 10" w/LED
D7X	Octagonal, 28" x 10"
D7L	Octagonal, 28" x 10" w/LED



Octagonal Shield

E1X	Curved, 12" x 8"
E1L	Curved, 12" x 8" w/LED
E2X	Curved, 16" x 8"
E2L	Curved, 16" x 8" w/LED
E3X	Curved, 20" x 10"
E3L	Curved, 20" x 10" w/LED
E4X	Curved, 24" x 10"
E4L	Curved, 24" x 10" w/LED
E5X	Curved, 28" x 10"
E5L	Curved, 28" x 10" w/LED



Curved Shield

F1X	Flat, Dual, 7" x 6"
F1L	Flat, Dual, 7" x 6" w/LED
F2X	Flat, Dual, 9" x 8"
F2L	Flat, Dual, 9" x 8" w/LED
F3X	Flat, Dual, 14" x 12"
F3L	Flat, Dual, 14" x 12" w/LED
F4X	Flat, Dual, 16" x 14"
F4L	Flat, Dual, 16" x 14" w/LED



Dual Flat Shield

ENCLOSURE

0	No Enclosure
1	Lighted – Non-Interlocked Enclosure
2	Lighted – Interlocked Enclosure
3	Lighted – Interlocked & Monitored Enclosure



Interlocked



Non-Interlocked

OFFSET

04	4" Offset
10	10" Offset
12	12" Offset
14	14" Offset
16	16" Offset
18	18" Offset
20	20" Offset
22	22" Offset
24	24" Offset
D7	7" Dual Offset



Offset

ARM

000X	Direct Mount w/o Interlock
000L	Direct Mount w Interlock
161X	Articulating, Single Pivot, 2 Arms, 16" Reach w/o Interlock
161L	Articulating, Single Pivot, 2 Arms, 16" Reach w/ Interlock
162X	Articulating, Double Pivot, 2 Arms, 16" Reach w/o Interlock
162L	Articulating, Double Pivot, 2 Arms, 16" Reach w/ Interlock
201X	Articulating, Single Pivot, 2 Arms, 20" Reach w/o Interlock
201L	Articulating, Single Pivot, 2 Arms, 20" Reach w/ Interlock
202X	Articulating, Double Pivot, 2 Arms, 20" Reach w/o Interlock
202L	Articulating, Double Pivot, 2 Arms, 20" Reach w/ Interlock
241X	Articulating, Single Pivot, 2 Arms, 24" Reach w/o Interlock
241L	Articulating, Single Pivot, 2 Arms, 24" Reach w/ Interlock
242X	Articulating, Double Pivot, 2 Arms, 24" Reach w/o Interlock
242L	Articulating, Double Pivot, 2 Arms, 24" Reach w/ Interlock
361X	Articulating, Single Pivot, 3 Arms, 36" Reach w/o Interlock
361L	Articulating, Single Pivot, 3 Arms, 36" Reach w/ Interlock
362X	Articulating, Double Pivot, 3 Arms, 36" Reach w/o Interlock
362L	Articulating, Double Pivot, 3 Arms, 36" Reach w/ Interlock



Direct Mount



Single Pivot 2 Arms



Double Pivot 2 Arms



Single Pivot 3 Arms



Double Pivot 3 Arms

MOUNT



Left Mount



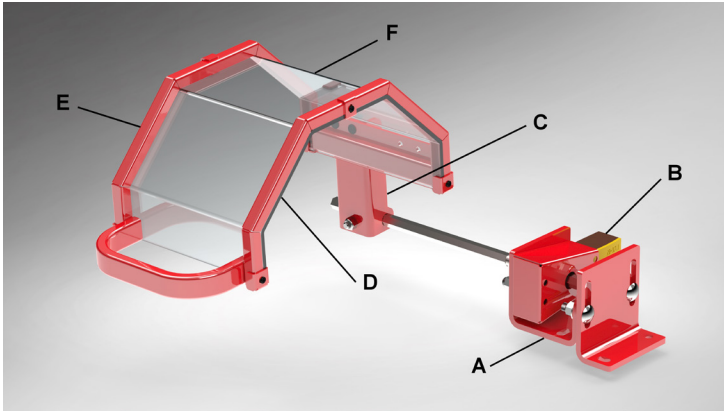
Center Mount



Right Mount

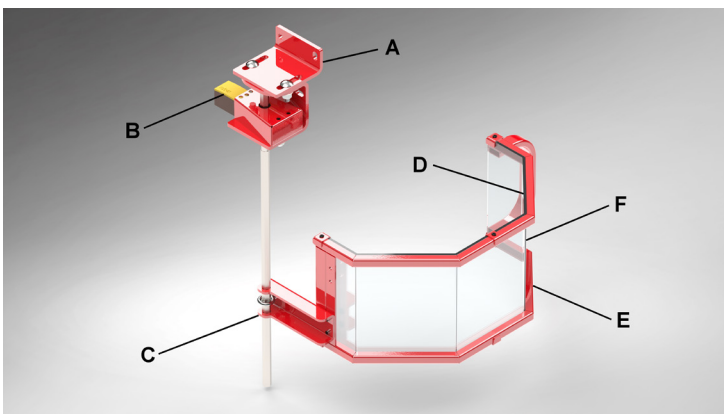
L	Left Mount
R	Right Mount
C	Center

LATHE SHIELD ILLUSTRATION (RSSD3LR000L102)



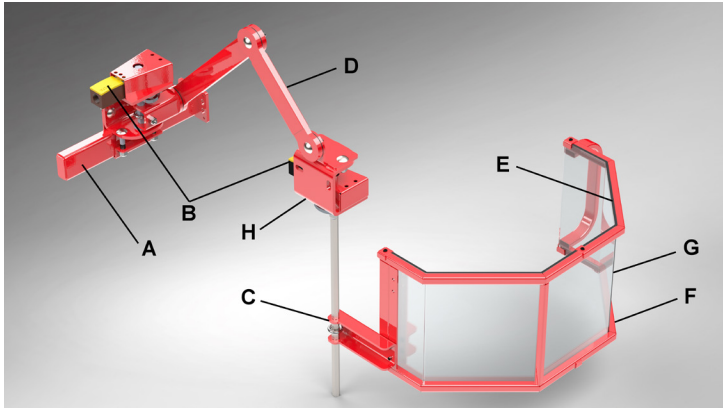
- A – 1/4" steel mounting/pivot bracket w/ball bearings – vertical or horizontal mounting – 120° rotation
- B – Safety-rated microswitch (optional) mounted in tamper-resistant steel enclosures – 1 NO, 1 NC contacts
- C – Adjustable shield-mounting clamp in 7GA steel – allows for radial and axial position adjustment
- D – Available built-in LED lighting – lights your work, indicates available Interlock status
- E – Heavy 14GA steel formed and welded shield frame with durable powder coat finish
- F – 3/16" thick polycarbonate shock-proof & oil-resistant shield

DRILL SHIELD ILLUSTRATION (RSSD4LL000L182)



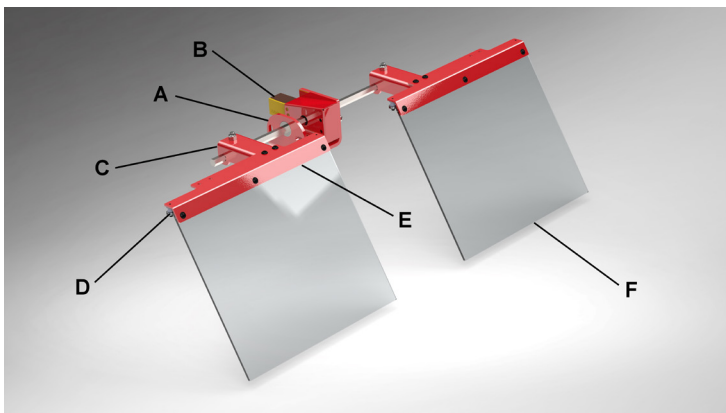
- A – 1/4" steel mounting/pivot bracket w/ball bearings – vertical or horizontal mounting – 120° rotation
- B – Safety-rated microswitch (optional) mounted in tamper-resistant steel enclosures – 1 NO, 1 NC contacts
- C – Adjustable shield-mounting clamp in 7GA steel – allows for radial and axial position adjustment
- D – Available built-in LED lighting – lights your work, indicates available Interlock status
- E – Heavy 14GA steel formed and welded shield frame with durable powder coat finish
- F – 3/16" thick polycarbonate shock-proof & oil-resistant shield

MILL SHIELD ILLUSTRATION (RSSD5LL202L162)



- A – Sturdy, tubular steel mounting post with leveling taps– provides 8” of adjustment
- B – Safety-rated microswitches (optional) mounted in tamper-resistant steel enclosures – 1 NO, 1 NC contacts
- C – Adjustable shield-mounting clamp in 7GA steel – allows for radial and axial position adjustment
- D – Tubular steel Articulating arms w/anti-slip discs – 2 & 3 segments avail. for a reach of 16”-36”
- E – Available built-in LED lighting – lights your work, indicates available Interlock status
- F – Heavy 14GA steel formed and welded shield frame with durable powder coat finish
- G – 3/16” thick polycarbonate shock-proof & oil-resistant shield
- H – 1/4” steel pivot/switch bracket w/ball bearings – vertical or horizontal mounting – 120° rotation

GRINDER SHIELD ILLUSTRATION (RSSF3LC000LD72)



- A – 1/4” steel mounting/pivot bracket w/ball bearings – vertical or horizontal mounting – 120° rotation
- B – Safety-rated microswitch (optional) mounted in tamper-resistant steel enclosures – 1 NO, 1 NC contacts
- C – Adjustable shield-mounting clamps in 7GA steel – allow for radial and axial position adjustment
- D – Available built-in LED lighting – light your work, indicate available Interlock status
- E – Heavy 10GA steel formed top frames with durable powder coat finish
- F – 3/16” thick polycarbonate shock-proof & oil-resistant shields



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