



# Machine Safeguarding

Our Business Is Safeguarding Yours!

- Machine Safety Surveys
- Machine Guarding Products
- Custom Guarding Fabrication
- Installation Services
- Machine Process Controls
- Safety Training

# Lovegreen Risk Management

## TO ORDER

### PHONE

800-262-8284

### FAX

651-890-8370

### ONLINE

[lovegreen.com/shop](http://lovegreen.com/shop)

### EMAIL

[sales@lovegreen.com](mailto:sales@lovegreen.com)



## QUESTIONS?

Call our safety experts with any questions you have about machine safeguarding or compliance issues.

800-262-8284

7am to 5pm CST



Lovegreen Risk Management, LLC  
2280 Sibley Court  
Eagan, MN 55122  
800-262-8284  
[www.lovegreen.com](http://www.lovegreen.com)



***Machine guarding may be one of the biggest areas for safety improvement in your facility. In fact, machine guarding violations continue to be ranked in the top ten of OSHA's cited standards, year after year.***

***We can help you with all aspects of machine guarding including machine assessments, safety products, custom fabrication, installation and complete electrical and integration services.***

### **Guarding Products**

We offer OSHA compliant guards that are easy to install. We have many options for common equipment like drill presses, milling machines, and lathes.

### **Guard Installation**

Our expert installers can install custom guards at your facility. We can provide turnkey service or work with your employees.

### **Custom Guard Fabrication**

We can engineer and fabricate custom guards that for you in our 45,000 square foot manufacturing facility.

### **Electrical & Integration Services**

Our electricians and integrators can install engineered process controls to bring old machinery into compliance with current OSHA and NFPA-79 regulations.

### **Safety Assessments**

Do you have machines that don't meet OSHA standards? We will evaluate your machines and create a confidential, detailed report outlining safeguarding issues.

***Lovegreen Risk Management is a subsidiary of Lovegreen Industrial Services. LIS is a third-generation business with over 60 years of experience specializing in millwright contracting, metal fabrication and machining.***

***Our Business is Safeguarding Yours!***

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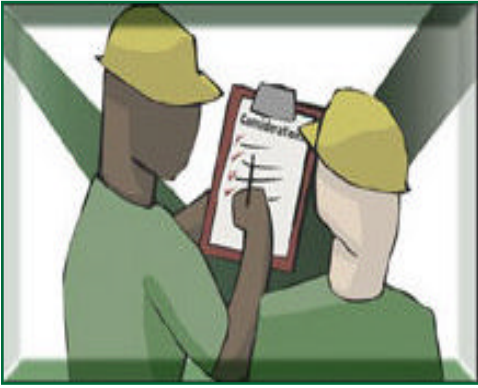
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## TERMS AND CONDITIONS OF SALE.....



# Safety Consulting Services



## Machine Safeguarding Assessments

Are there machines in your facility that do not meet OSHA safeguarding standards? We can help you find out with an on-site machine safety evaluation. Our safety engineers will tour your facility to assess your machines and then create a confidential, illustrated report documenting what is deficient, why it should be improved, and reference the relevant standards. Additionally, we will provide turn-key remediation pricing.

Please call **800-262-8284** for more information.



## Safety Training Seminars

Developing safety training programs in-house is a complicated and expensive process. Federal and state OSHA programs require that employers provide basic and recurring training to employees.

Lovegreen Risk Management offers an array of safety training programs, classes, and resources. We will help you understand, and comply with, OSHA, ANSI and NFPA standards. We specialize in training programs that meet your specific needs. Call us for more information.

# Installation Services



## Safeguarding Installation Services

Do you know if your machines are properly guarded to current OSHA standards? Call us to take the guess work out of machine safety.

Our expert technicians will install safeguarding systems on your machines in accordance with relevant safety standards. Our expert installers will fabricate and install custom guards on-site. Our trained electricians and electronic integrators ensure that the appropriate requirements of safety circuitry are met.

Our technicians actively seek input from machine operators to make sure the machine guarding does not interfere with machine operation. Upon job completion, our safety engineer will perform an on-site review to monitor quality and ensure that all safety measures were properly installed. We can provide turnkey service, work with your maintenance department, or just provide the guarding materials. Services include:

**Custom Fabricated Guards** - We design, build and install OSHA compliant guards and shields for shop and industrial production equipment.

**Barrier Guarding** - Our fixed barrier systems prevent employees from entering dangerous areas.

**Machine & Process Safeguarding** - Complete electrical and integration services.



# Stop Time Measurement



## Stop Time Analysis Services

Current OSHA regulations and ANSI standards require that a machine's stop time be measured to determine how long it takes a machine to stop after a stop signal is given. This is critical when using presence sensing devices like light curtains, pressure mats, and laser scanners as a safety device. We calculate the minimum safety distance required from the point of operation for their placement.

Lovegreen provides stop time measurement readings for various types of industrial machines, including mechanical and hydraulic power presses, press brakes and machines that utilize rotational movement. Experienced Lovegreen technicians use the same stop time analysis as OSHA to ensure consistent results.

Inspection reports include details as to each machine's compliance to current safety regulations and standards. Multiple measurements taken on individual machines are used to determine the minimum safety distance required for placement of the machine's safeguarding devices including light curtains and safety mats.

Call **800-262-8284** for more information or to schedule an appointment.

# Lockout / Tagout - LOTO



## Lockout / Tagout Assessment

Lovegreen will conduct an on-site assessment of manufacturing and HVAC equipment at your facility. The assessment will consist of the identification of applicable energy sources and the shut-off location for each energy source.

Lovegreen will develop specific written lockout / tagout procedures for each individual piece of machinery. Photographs will be taken of the equipment and shut-off locations will be included for each source of energy. (e.g. electrical, pneumatic, hydraulic, potential).

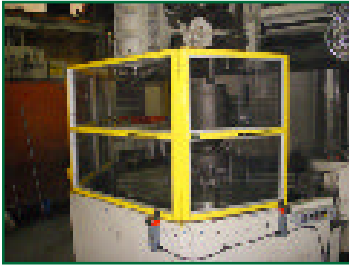
We create a three-ring binder for all of the specific procedures developed at each location and provide a laminated copy to be posted on the equipment.

## Lockout / Tagout Training

If requested, we will conduct an OSHA-required Lockout / Tagout awareness classroom training session. The training sessions cover basic LOTO information, an explanation of energy sources, the general LOTO procedure, OSHA requirements and information specific to your company.

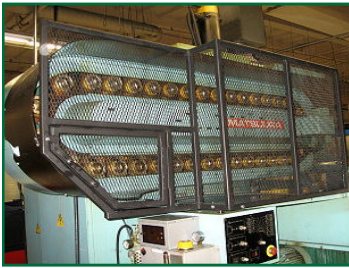
We also offer an OSHA-required hands-on training sessions for the employees who are responsible for your on-site Lockout / Tagout program. The training includes information about locks, tags, and other relevant information. Call **800-262-8284** for more information or to schedule an appointment.

# Custom Machine Guarding



## Custom Machine Guarding

We make OSHA compliant guards for common shop equipment including drill presses, sanders, and saws and for industrial production equipment. We can custom build your guarding on-site or in our 45,000 square foot manufacturing facility using metals, polycarbonate and other proven guarding materials. The guarding can be painted or power coated for a durable finish. In-house engineering services are available. Doors may be fitted with safety rated interlock switches to prevent access to the moving hazards while the machine is in operation.



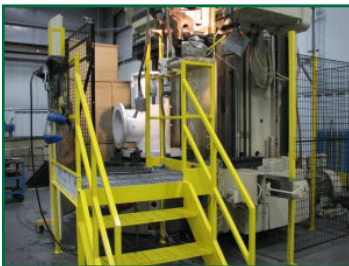
## Tool Magazine Enclosures

Tool magazines contain sharp, cutting tools that pose a hazard when they are moving. Current standards dictate that moving parts, that pose a hazard, must be guarded if they are within 7 feet of the walking surface. We can fabricate and install custom tool changer enclosures at your facility. Sturdy steel frame construction with a black, steel mesh. Because the mesh is black, the press operator's eyes can easily focus on the point of operation. Access panels include safety rated interlock switches that allow bit changes only while the machine is not running.



## Extruded Aluminum Enclosure Cabinets

Installing cabinet style guarding is a cost effective way to protect employees from coming into contact with machine hazards at the point of operation. Let us fabricate guarding that completely covers hazardous points without compromising productivity. Constructed on-site using extruded aluminum framing and fitted with a variety of panel options, reducing the need for off-site engineering and detailed drawings. Modular guard construction makes it easy to add hinged access panels wherever they are required. Optional interlock switches prevent access to the hazards while the machine is in operation.



## Custom Platforms, Railings, Stairways and Ladders

Existing walkways and railings may not be compliant with today's safety standards. (29 CFR Part 1910 Subpart D - Walking-Working Surfaces). Stair treads that vary in height and width pose trip and fall hazards to employees. Older railing systems are often times too short and lack the required toe boards. Ladders must have a self closing gate to prevent employees from stepping through the opening and falling. With over 60 years of experience, our fabrication shop and millwrights will manufacture compliant interior and exterior stairway and railing systems to meet your needs. In-house engineering services are available.



## Heavy Duty Fence Enclosures

The Fixed Fencing System prevents employees from entering into dangerous work areas while the machine is in operation. The posts are fabricated out of 2" square, 14 gauge steel and power coated safety yellow. The panels are 8 gauge, welded wire with bends on top and bottom for extra strength. The black powder coated mesh allows the press operator's eyes to easily focus on the point of operation. Doors are pre-hung and have 94" clear height opening. Available options include keyed or mortised locks and safety interlocks provide an extra level of protection.



## Draw Press Flywheel Guarding

Flywheels located so that any part is seven (7) feet or less above floor or platform shall be guarded in accordance with the requirements of 1910.219(b)(1)(i). Machine mounted flywheel guarding is installed to prevent access to the pinch, crush and entanglement hazards. Fabricated using heavy gauge steel, it has steel mesh panels that allow air flow. Hinged access panels allow preventative maintenance. Latching interlock switch and EMF sensor prevent access until the flywheel has come to a complete stop.



# New Products



## Unirail™ - Sliding Lathe Guard

Safeguarding large capacity metal turning lathes poses a special challenge. Both the work holding chuck and the point of operation must be provided with shields to control chips, stringers, coolant, and inadvertent operator contact. The UniRail™ has an innovative mounting and suspension system that is both user friendly and effective.

Each UniRail™ shield is supported by a robust, floor anchored rail above and behind the lathe center line. Two or more UniRail™ shields may be mounted above a lathe to provide maximum protection while still allowing easy setup. Work piece installation and removal is unrestricted because the UniRail™ shields can be rolled out of the way. Each UniRail™ is custom designed and fabricated for your specific lathe. This design can be sized to fit lathes from 20" to 60" swing. An optional interlock for the chuck shield is available.



## MillSafe™ - Vertical Boring Mill Shield

The manually controlled vertical boring mill is one of the most versatile and productive machines in today's shop. Unfortunately, very few have effective shields. Our customers asked for a positive way to protect their workers from the hazards of flying chips, razor sharp stringers and splashing coolant. The result is our new MillSafe™.

This segmented MillSafe™ safeguard incorporates a series of lightweight, strong aluminum shields. The operator can easily lower the mechanically counterbalanced shields to remove/replace work pieces, do setups, or check on the progress of the cut. Each MillSafe™ shield set anchors to the floor around the base of the turntable. This system can be fitted with optional interlocks to assure that the operator is properly protected prior to starting the turning process.



## Ballistic Curtain - Steel Mesh Ejection Curtain

Perfect for hydraulic press guarding where easy access is desired, and safety can't be compromised. When properly installed, the safety mesh will stop dangerous, flying debris and allow it to fall safely to the ground. The curtain is fabricated from steel mesh that was designed to protect people in the vicinity of a bomb blast.

The curtain slides into place along an overhead rod that is similar to a shower curtain. Black mesh allows the press operator's eyes to easily focus on the point of operation. The curtains are lightweight, easy to install, and maintenance free. Exceeded the ISC/GSA Performance Condition 3b and meets the Unified Facilities Criteria (UFC) 4-010-01 standard. Custom built to your specifications guarantees a great fit. Locking interlock switch is available.



## Balancer Bunker - Balancer Ejection Shields

The balancing process exposes workers and passers-by to entanglement and ejection hazards. The Balancer Bunker is designed to enclose the balancer and work piece inside of its protective wire-mesh cage. Constructed out of welded steel tubing and wrapped with wire mesh to allow viewing of the process.

Ends can be designed with doors or chains for added protection. The Balancer Bunker rides on specially designed rails so you can roll it out of the way for loading the balancer. Each Balancer Bunker is custom designed for your specific application. Interlocks are also available for added safety.



# Machine Motor Controls



## 120 Volt Motor Control - With Power Outage Protection

Provides Start, Stop and latching E-stop functions. This control will prevent the restart of the machine it controls after a power outage using an internal, latching relay. This control is UL / CUL listed. OSHA and NFPA 79 Compliant. Dimensions - 4.5" W x 9.5" L x 4.5" H.

| Part No. | Maximum Amps | Maximum H.P. | Box Style        |
|----------|--------------|--------------|------------------|
| LRM120   | 13.8 amps    | 3/4 hp       | Nema 4 - Plastic |
| LRM125   | 20.0 amps    | 1 hp         | Nema 4 - Plastic |



## 120 Volt Motor Control with Locking E-stop

Provides Start, Stop and latching E-stop functions. Power outage protection prevents accidental motor restart. This control is UL / CUL listed. OSHA and NFPA 79 Compliant. Includes locking E-stop button to deter unauthorized machine startup. Requires included key to unlock stop button.

| Part No. | Maximum Amps | Maximum H.P. | Box Style        |
|----------|--------------|--------------|------------------|
| LRM120-K | 13.8 amps    | 3/4 hp       | Nema 4 - Plastic |
| LRM125-K | 20.0 amps    | 1 hp         | Nema 4 - Plastic |



## 120 Volt Motor Control with E-stop Guard

Provides Start, Stop and latching E-stop functions. Power outage protection prevents accidental motor restart. This control is UL / CUL listed. OSHA and NFPA 79 Compliant. E-stop button has an integrated E-stop guard. Specifically designed for hard service environments like middle schools.

| Part No. | Maximum Amps | Maximum H.P. | Box Style        |
|----------|--------------|--------------|------------------|
| LRM120-E | 13.8 amps    | 3/4 hp       | Nema 4 - Plastic |
| LRM125-E | 20.0 amps    | 1 hp         | Nema 4 - Plastic |



## High Voltage Motor Control - 208 Volt or Greater

Provides Start, Stop and latching E-stop functions for machines with an existing magnetic contactor. Designed to operate the magnetic motor control voltage only, not line voltage. The controller should be installed by a qualified electrician. Mounting brackets available.

| Part No. | Switch Rating  | Box Size                 | Box Style        |
|----------|----------------|--------------------------|------------------|
| LRM140   | 240 volts @ 3A | 3" W x 6.25" L x 4.25" H | Nema 4 - Plastic |
| LRM145   | 240 volts @ 3A | 3" W x 6.25" L x 4.25" H | Nema 12 - Metal  |



## Emergency Stop Controller

E-stop button uses a push-to-stop, twist-to-release mechanism to provide emergency stop actuation. This button provides a rapid way to disconnect the energy source of the device to protect the operator. Meets current NFPA-79 standards that require a red, latching mushroom shaped control with yellow background.

| Part No. | Switch Rating  | Box Size               | Box Style        |
|----------|----------------|------------------------|------------------|
| LRM141   | 240 volts @ 3A | 2.5" W x 2.5" L x 3" H | Nema 4 - Plastic |
| LRM146   | 240 volts @ 3A | 2.5" W x 2.5" L x 3" H | Nema 12 - Metal  |



## 4 Button Milling Machine Motor Controller

Replaces existing drum style switches with a modern, compliant set. Functions include Start, Stop, E-stop and Forward / Reverse functions. Designed to operate the magnetic motor control voltage only, not line voltage. The controller should be installed by a qualified electrician. Mounting brackets available.

| Part No. | Switch Rating  | Box Size           | Box Style        |
|----------|----------------|--------------------|------------------|
| LRM150   | 240 volts @ 3A | 3" W x 7" L x 3" H | Nema 4 - Plastic |
| LRM155   | 240 volts @ 3A | 3" W x 7" L x 3" H | Nema 12 - Metal  |

# Machine Motor Controls



## Lockable Disconnect

Provide a lockable disconnect to any machine. Make Lock Out/Tag Out/Try Out simple and safe. The disconnect operating handle is lockable in the off position only. Motor magnetics are required to reduce the control circuit voltage to 115-VAC in order to comply with NFPA 79. This control is UL and C-UL listed, OSHA and NFPA 79 compliant. Dimensions - 4" W x 6" L x 3.75" H

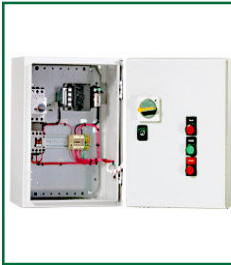
| Part No. | Maximum Voltage | Maximum Amperage | Box Style        |
|----------|-----------------|------------------|------------------|
| LRM160   | 600 VAC         | 25 Amps          | Nema 4 - Plastic |



## Latching E-stop Button with Background Ring

The red, latching, mushroom shaped E-stop button includes a yellow background ring. Intended as a new or replacement e-stop button that can be installed in an existing machine control panel. Available with or without integrated key lock to deter unauthorized machine startup.

| Part No. | Post Size  | Switch Rating  | Key Style       |
|----------|------------|----------------|-----------------|
| LRM98    | 30 mm post | 240 volts @ 3A | No Key          |
| LRM98-K  | 30 mm post | 240 volts @ 3A | Includes 2 keys |



## Custom-Built Enclosed Motor Starters

Industrial grade magnetic switches protect against thermal overload and automatically shut down if power is interrupted. Equipment will not restart when power is restored until the ON button is depressed by the operator. Available for reversing and non-reversing motors.

| Part No. | Description                                      | Box Style      |
|----------|--|----------------|
| LFM-000  | For Non-Reversing Motors (208-460 VAC) (5-200HP) | Nema 4 - Metal |
| RFM-000  | For Reversing Motors (208-460 VAC) (5-75HP)      | Nema 4 - Metal |



## Start/Stop Enclosed Motor Starters

Motor Magnetics are used on electrical machinery to prevent tools from restarting after a power loss occurs and power is subsequently restored. If your machine can present a hazard to an operator when it restarts by itself, current safety standards mandate that it must be equipped with power outage protection to control this hazard. IP65 Rating environmental protection

| Part No. | Description  | Box Style        |
|----------|--|------------------|
| SMS-000  | For Non-Reversing Motors (120-460 VAC) (1/3-75 HP) | Nema 4 - Plastic |



## Motor Controller Brackets

Heavy gauge, galvanized steel brackets make motor control installation easy. Perfect for horizontal and vertical installation of Lovegreen motor controls and other products.

| Part No. | Size                         | Part No. | Size                      |
|----------|------------------------------|----------|---------------------------|
| BKT-120  | 8"H x 3" W (Fits LRM120)     | BKT141   | 3" H x 3" W (Fits LRM141) |
| BKT-140  | 6.75" H x 3" W (Fits LRM140) | BKT150   | 8" H x 3" W (Fits LRM150) |



## E-stop Background Rings

NFPA79 requires a yellow background ring behind red E-stop buttons. EU standards for machine safety also require this contrasting color scheme. The background ring helps assure compliance and easy identification of this essential control. Available with or without adhesive back.

| Part No. | Description                    | Ring Style            |
|----------|--------------------------------|-----------------------|
| LRM102-1 | 80 mm ring - 22 mm center hole | Plastic - No Adhesive |
| LRM102-3 | 60 mm ring - 22 mm center hole | Vinyl - Adhesive      |

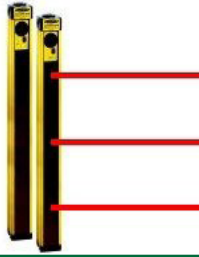
# Process Safety Controls



## Safety Light Curtains

Safety light curtains protect personnel from injury and machines from damage by guarding points of operation, access areas and perimeters. Type 4 light curtains meet CE requirements. Non-contact machine guarding systems protect fingers, hands and ankles, and guard perimeters and access using self-contained emitters and receivers without a separate control box. Available in 14mm resolution for finger protection and 30mm resolution for hand and foot protection. Systems have ranges up to 70 m, with power and range for all types of applications including long-range perimeter guarding.

**Part No. SOLID-4 / SOLID-4E** - Several models and configurations available



## Perimeter Light Beams

Systems allow one, two, three or four-beam perimeter and access guarding to protect personnel from entering hazardous areas. Operates in ranges from 0.8 m to 70 m, depending on the model. Includes blocked beam zone indicators. Displays operating status, configuration, and error codes. Resists impact, twisting and abusive environments with a durable, aluminum housing. Certified per CE (Type 4 / Category 4) and cULus (Type 4) applications.

**Part No. EZ-Grid** - Several models and configurations available



## Interlock Safety Switch

Safety interlock switches respond when a mechanical guard opens. They feature “positive opening” contacts for high reliability and coded actuators to discourage tampering or defeat. Non-locking models may be used when the dangerous movement has stopped before the entering person can reach the point of operation. Locking style switches lock a mechanical guard until hazardous motion stops completely. Easy to install. The swivel deflecting head and numerous actuators enable universal use of this Safety Switch. Contact sets for integration up to category 4 in accordance with EN ISO 13849.

**Part No. SI-LS42** - Several models and configurations available



## Magnetic Safety Switches

Magnetic safety switches respond when a mechanical guard opens. Switch contains several differently polarized magnets that align with pole-stable reed contacts to minimize possibility of defeat. Sealed components resist water, dirt and are more accommodating to misalignment than mechanical switches. All models provide one normally open (NO) and one normally closed (NC) actuator contact. Three housing styles are available for flat or 30 mm barrel-style mounting. For safety rated applications, switch must be used with monitoring module.

**Part No. SI-MAG1-SM** - Several models and configurations available



## Safety Hinged Switches

Safety Hinge Switches are used for position monitoring of hard guards that can rotate (e.g. protective hoods) with a monitoring switch (without guard interlocking) integrated into the hinge. This Safety Switch is used with machines with small stopping times, depending on the distance to the point of operation. As external actuators are not required with this Switch, it can also be used problem-free in environments with high dust concentration levels or with heavy particle loads. It also boasts a simple switching angle alignment. The covered screws of the Safety Hinge Switch ensure that it is highly tamper proof.

**Part No. SI-HG / SI-LS** - Several models and configurations available



## E-stop Rope Switch

For stopping in emergencies EN ISO 12100-1 stipulates protective devices and supplementary measures, such as E-STOP buttons or emergency rope switches, for example. When used with steel, wire rope, this switch provides emergency stop actuation for conveyors and large machinery. Contact sets for integration up to category 4 in accordance with EN ISO 13489. Compact metal housing and IP67 protection rating. Simple setup through switching point indicator. Easy integration with 3 cable approach direction.

**Part No. ERS200** - Several models and contact configurations available



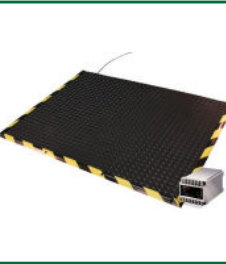
# Process Safety Controls



## Safety Laser Scanners

Two-dimensional laser scanner effectively protects personnel, as well as stationary and mobile systems within a user designated area. The highly flexible, protective and warning fields can be set to match the shape of the work area. Compact design, simple installation and easy-to-use software provide efficient integration into work zones. All configuration data, such as the definition of the zones, the resolution or the response times, is defined with the RS4soft configuration and diagnostics software. System meets all requirements for Type 3 per IEC 61496.

**Part No. RS4** - Several models and configurations available



## Safety Mats

The Zippswitch Safety Mat is an industrial grade, pressure sensitive, presence sensing device. The Zippswitch Safety Mat uses a 4-wire, normally open switch circuit. When contact is made with the safety mat, the safety mat switch closes the circuit and emits a signal to the machine controls in response. When activated, the Safety Mat acts as an emergency stop that removes power from the machine. The Safety Mat includes ramped edge trim with mounting holes. The Safety Mat includes a 2 year, 5 million activation warranty.

**Part No. ZS-MS** - Several models and configurations available



## Safety Switch Bumpers and Controllers

The Safety Switch Bumpers are an industrial grade, pressure sensitive, 4-wire safety switch bumper and control reliable safety system. The purpose of a Safety Edge and Safety Bumper is to protect personnel and machinery. The Safety Bumper are used as "pinch point" and "collision" safety sensors. They are designed to detect contact of an object and to emit a signal to the machine controls in response. When correctly installed, contact with the bumper stops the machine. Standard lengths are 6" to 96". The Safety Bumpers have a 2 year, 5 million activation warranty.

**Part No. ZS-SB** - Several models and configurations available



## Optical Two-Hand Controls and Run Bars

These buttons are touch-activated, photoelectric devices designed to replace capacitive touch switches and mechanical push buttons. The buttons are ergonomically designed to eliminate the hand, wrist and arm stresses associated with mechanical push buttons. They require absolutely no physical pressure to operate. Pair these controls with a type IIIC control module to meet ISO13851 / EN574)

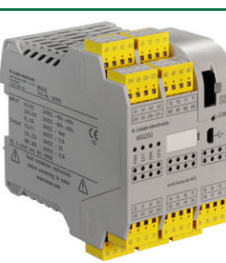
**Part No. STBVP6** - Several models and configurations available



## Safety Relay Modules

Safety relays are used to increase the control reliability and safety integrity of a circuit and devices. The safety module provides the redundant safety outputs required for creating a control-reliable safety circuit. The self-checking, safety relay constantly monitors the 'health' of the safety device. If a fault is detected, the module will lock out, open its safety outputs and indicate the problem on its LED display. When the fault is cleared and no other faults exist, the module can be reset.

**Part No. MSI-SR4** - Several models and configurations available



## Safety Controllers and Modules

In automated systems, sensors and actuators must interact with one another functionally and safely. Modules monitor normally closed emergency stop switch circuits or safety interlock switch circuits for a contact failure or wiring fault. Industrial safety controllers and modules provide an interface between safety devices and the machines and processes those devices monitor. Used to monitor numerous safety devices such as E-stop buttons, interlocking switches, safety light screens, two-hand controls and rope pull switches.

**Part No. MSI-200** - Several models and configurations available

# Band Saw Protection

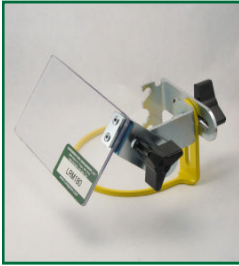


## Band Saw Chip Shield

Heavy-duty, polycarbonate shield helps protect the saw operator from inadvertent blade contact, chips and broken blades.

Installs easily in minutes on most band saws. Designed to move up and down with blade guide. Fully adjustable shield rotates in a vertical plane and locks in place with a quick twist of the knob. Band Saw Standard (29 CFR 1910.213 (i))

**LRM180**



## Band Saw Chip Shield Kit

Heavy-duty, polycarbonate shield helps protect saw operator from inadvertent blade contact, chips and broken blades. Includes bumper bar to protect the operator's hand from getting too close to the exposed portion of the band saw blade. Installs easily on most band saws. Designed to move up and down with the blade guide. Kit includes chip shield, band saw bumper and mounting hardware. Band Saw Standard (29 CFR 1910.213 (i))

**LRM183 - Fits 14" and small band saws**

**LRM184 - Fits band saws greater than 14"**

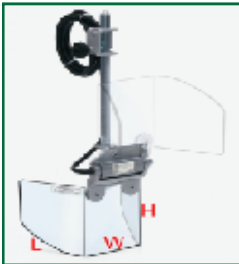


## Flexible Arm Chip Shield

Protects operator from inadvertent blade contact, chips and broken blades. Includes a 6" H x 6" L x 4" W polycarbonate shield on a 9" flexible arm.

Turning the knob releases pressure on the flexible arm, allowing easy adjustment of the shield. Kit includes band saw shield, mounting bracket, flexible arm and mounting hardware.

**13464**



## Interlocked Band Saw Chip Shield

Protects the operator from inadvertent blade contact, chips and broken blades. Shield equipped with innovative system of vertical opening, in the positions of 60°, 120° and 180°. Supported by widely adjustable hexagonal arms. Available in two versions. PTR10 front mount version and PTR11 side mount version. Provided with safety switch integrated to the hinge. Release knob for the vertical adjustment of the shield. Semi-hexagonal shield in polycarbonate.

**PTR 10/140 - 4.25" L x 8" W x 5.5" H**

**PTR 10/180 - 4.25" L x 8" W x 7" H**

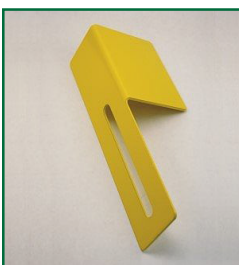


## Adjustable Lower Blade Guard

Lower blade guard protects the operator from becoming cut or entangled in a moving blade below the table. Manufactured using heavy-duty steel with a safety yellow, powder coat finish. Unique design allows access panel to open quickly.

Installs in minutes on most band saw models and features 3" of adjustability. For band saw models with left-hand hinged doors.

**LRM185 - Fits band saws greater than 14"**



## Lower Blade Guard

Lower blade guard protects the operator from becoming cut or entangled in a moving blade below the table. Manufactured using heavy-duty steel with a safety yellow, powder coat finish.

Installs in minutes on most band saw models.

**LRM186 - Fits band saws greater than 14"**

# Belt & Disc Sander



## Upper Belt Sander Shield

This fully adjustable shield covers the unused portion of the sanding belt above the work table, allowing for quick setups. Easy to install on a wide range of common belt sanders. Models available for installing on the left or right side of the sander. Manufactured using heavy-duty steel with a safety yellow, powder coat finish. Includes mounting hardware.

The unused portion of the sanding belt shall be guarded against accidental contact. (29 CFR 1910.213 (p)(4)).

**LRM210-L** - Left side mount

**LRM210-R** - Right side mount



## Lower Belt Sander Guard

Protects operator from unused portion of the belt below the work surface. This permanent guard eliminates accidental contact with the belt. Easy to install on a wide range of common belt sanders. Installs on the left side of the sander. Manufactured using heavy-duty steel with a safety yellow, powder coat finish. Includes mounting hardware.

The unused portion of the sanding belt shall be guarded against accidental contact. (29 CFR 1910.213 (p)(4))

**LRM220**



## Disc Sander - Upper Shield

Adjustable shield protects operator from the unused portion of the disc above the work table. Easily adjusted to maintain 1/4" disc exposure. Manufactured using heavy-duty steel with a safety yellow, powder coat finish. Includes mounting hardware. (29 CFR 1910.213 (p)(3))

**LRM303** - Fits 9" Upper Disc

**LRM302** - Fits 20" Upper Disc

**LRM300** - Fits 12" Upper Disc

**LRM304** - Fits 24" Upper Disc

**LRM301** - Fits 16" Upper Disc



## Disc Sander - Lower Guard

Protects the operator from the unused portion of the disc below the table. Fits most disc sanders. Manufactured using heavy-duty steel with a safety yellow, powder coat finish. Includes mounting hardware. (29 CFR 1910.213 (p)(3))

**LRM313** - Fits 9" Lower Disc

**LRM313** - Fits 20" Lower Disc

**LRM310** - Fits 12" Lower Disc

**LRM319** - Fits 24" Lower Disc

**LRM311** - Fits 16" Lower Disc

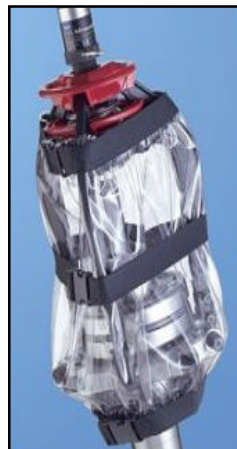
# Hydraulic & Mechanical Presses



## Steel Mesh Ejection Curtain

Perfect for hydraulic press guarding where easy access is desired, and safety can't be compromised. Fabricated out of a steel mesh that is secured at the top and hangs free at the sides and bottom. The mesh will stop dangerous, flying debris and allow it to fall safely to the ground. The mesh is painted black to allow the operator's eyes to focus more easily on the point of operation. Custom built to your specifications.

**LRM114** - Many sizes available



## Ballistic Protection Blanket

This heavy, flexible enclosure is specifically designed to contain the flying parts and pieces if the puller or press malfunctions.

It is adjustable to fit a wide range of part sizes and may be used in either a horizontal or vertical position.

**LRM113-S** (29" L x 16.5" W)

**LRM113-M** (38" L x 18.9" W)

**LRM113-L** (47" L x 22.8" W)



# Drill Press Guarding



## Drill Press Chip Shield

This chip shield mounts directly to the drill post and fits most machines. Easily moves out of the way for tool changes. Fully adjustable, polycarbonate shield is approximately 6" high.

Mounts to any drill press with a column diameter ranging in size from 1-1/2" to 3-11/16".

**LRM410**



## Bench Drilling Machine Guards

Model BT/2 is made from injection molded, high impact polycarbonate which offers clear and safe vision through body and visor. In the operating position the guard is securely locked in the closed position by a spring-loaded plunger pin assembly, when released the guard hinges up allowing instant access for drill and chuck change. Secures to drilling spindle collar or by drilling and tapping two, 6mm holes and bolting the guard directly to the casting face. Shield height - 4.5" retracted to 6.75" extended.

**SF-BT-02** - Secures to spindle collar

**SF-BT-04** - Mounts to casting face



## Flexible Arm Chuck Shield

Provides operator protection from chips and broken drills on drill presses, milling machines and other drilling equipment. Flexible arm is 10" long and permits setting of the shield at the correct height and angle for each setup. Flip shield up to load part and down for machining. Special spring-loaded shaft makes shield stay put. Shield is 6" wide by 6" high with 4" sides to protect workers at adjacent machines. Can be installed in minutes.

**13032**



## Telescoping Drill Guard

Provides complete operator protection. Inner cage moves down to protect the operator from metal slivers and broken bits. Window caged housing moves up while the drill chuck moves down and quickly snaps back in place when the drill chuck moves up. For drill bit changes, simply pull down on housing. Interchangeable bushings available to accommodate most drill press quill sizes. Bushings fit quill diameter from 2.00" to 2.75". Order body and bushings separately.

**13125**



## Bench Drilling Machine Guard

Drill guards give full protection from quill to drill point by the smooth telescopic action of the guards, which collapse as the drill penetrates the work piece, returning to the extended position when the spindle is raised. Drill guard coverage is from 4.25" to 7". Aluminum frame with polycarbonate visor. Flip up front to access spindle.

**SF-MTS-02** - Quill mount

**SF-MTS-ADJ** - Multi adjustment fitting

**SF-MTS-04** - Mounts to casting face

**SF-MTS-RV** - Replacement Visor



## Light Radial Drilling Guard

Side opening guard secures around depth stop collar using fixing top. Telescopes on contact with work piece. Extends from 6" to 10.5". Positive latching side, aluminum body with polycarbonate viewing window. Includes thumb screw to keep window up. Two mounting styles include a model that attaches to quill, (Bore hole size to fit) and one that use three fasteners that tighten around quill

**SF-LRTL-02** - Quill mount

**SF-MTS-RV** - Replacement Visor

**SF-LRTL-ADJ** - Multi-adjustment feature

# Drill Press Guarding

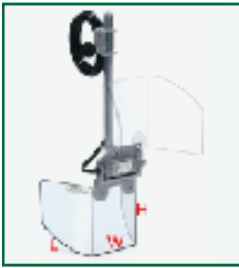


## Heavy Duty Drill Guard

Designed to suit most drilling machines the SECURVUE Drill chuck guard is manufactured from sheet steel with a clear 4mm adjustable polycarbonate visor. The unique design totally encloses the danger zone yet enables the guard to hinge aside to allow immediate access for drill and chuck change. Available with optional interlock switch. Interlock Switch manufactured by Honeywell which automatically locks into position to complete the electrical circuit; the machine will not operate when the guard is open.

**SF-BP2-MAN** - Drill chuck guard w/o interlock

**SF-BP2-INT** - Drill chuck guard with interlock

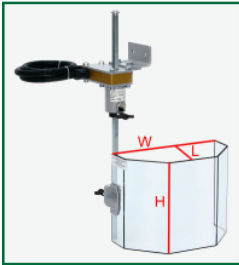


## Interlocked Drill Guard

Protects the operator from front contact with the chuck, shaving projections and lubricant coolant. Shield equipped with innovative system of vertical opening, in the positions of 60°, 120° and 180°. Supported by widely adjustable hexagonal arms. Available in two versions. PTR10 front mount version and PTR11 side mount version. Provided with safety switch integrated to the hinge. Release knob for the vertical adjustment of the shield. Semi-hexagonal shield in polycarbonate.

**PTR 10/140** - 4.25" L x 8" W x 5.5" H

**PTR 10/180** - 4.25" L x 8" W x 7" H



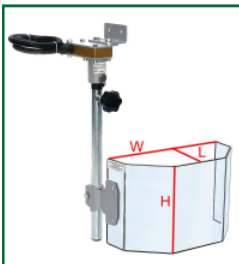
## Interlocked Drill Guard - Medium Shield

Protects the operator from front contact with the chuck, shaving projections and lubricant coolant. Install on left side of the machine. Supplied with semi-octagonal shield equipped with double vertical adjustment system. Telescopic shield arm group, adjustable by knob. Shield adjustable on the same arm. Complete with safety microswitch. 180° rotation.

Perfect for 14" to 20" drill presses.

**PTR 02/130** - 4.5" L x 9" W x 5" H

**PTR 02/180** - 4.5" L x 9" W x 7" H



## Interlocked Drill Guard - Large Shield

Protects the operator from front contact with the chuck, shaving projections and lubricant coolant. To install on left side of the machine. Supplied with semi-octagonal shield equipped with double vertical adjustment system. Telescopic shield arm group, adjustable by knob. Shield adjustable on the same arm. Complete with safety microswitch. 180° rotation.

Perfect for large drill presses and radial arm drills.

**PTR 20/300** - 6" L x 12" W x 8.25" H

**PTR 20/350** - 6.75" L x 14" W x 9.5" H



## Winged Snake Arm Shield

Provides operator protection from chips and broken drills on drill presses, milling machines and other drilling equipment. Each shield assembly consists of a U-shaped polycarbonate shield that is 3/16" thick, a shield bracket assembly, a snake arm with a direct-mount base, and mounting hardware. The direct-mount base can be fastened to most any flat surface with the included mounting hardware. (L x W x H)

**SHD-12126U** - 6" x 3" x 6" shield - 12" arm

**SHD-121510U** - 5" x 5" x 10" shield - 12" arm

**SHD-12157U** - 5" x 5" x 7" shield - 12" arm

**SHD-12169U** - 10" x 3" x 9" shield - 12" arm



## Drilling Machine Safety Sign

Safety signs are intended to identify and warn against specific hazards. They should be affixed to a prominent location on the machine. Complies with OSHA 29 CFR 1910.145 and ANSI Z535.

**LBL-002**



## Self Ejecting Drill Chuck Key

Spring-loaded, self-ejecting chuck keys designed for use with drills and other machines equipped with manually tightened Jacobs style chucks. Self-eject feature prevents machine start-up while key is still in the chuck!

**SLCK** - Many sizes available

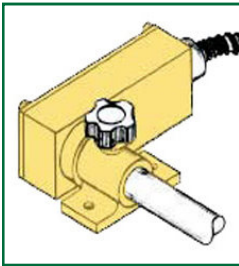
# Metal Lathe Protection



## Lathe Chuck Shield

Clear polycarbonate, semi-circular wrap-a-round guard. Protects operator from chips and broken tools. Heavy duty cast mounting bracket supplied. Easy to install. Attach mounting bracket with two screws. Available with optional interlocking mounting brackets. Accepts 3 or 4 jaw chucks.

|  |  |
|--|--|
| <b>12999</b> - For chucks up to 6" diameter  | <b>13062</b> - For chucks up to 16" diameter |
| <b>13060</b> - For chucks up to 8" diameter  | <b>13064</b> - For chucks up to 20" diameter |
| <b>13061</b> - For chucks up to 12" diameter | <b>17001</b> - Chuck shield interlock        |



## Chuck Guard Electrical Interlock

For use with all Flexbar lathe chuck shields and small metal chuck guards. When the safety shield is tilted up, the machine stops running. UL recognized. Exceeds industry standards. NEMA 4 rated. Roller and head are metal in sealed plastic housing. Available in four mounting configurations.

|   |   |
|---|---|
| <b>FB-17001</b> - Mounts at back of lathe       | <b>FB-17003</b> - Mounts on face of headstock |
| <b>FB-17002</b> - Telescoping & Swiveling Style | <b>FB-17004</b> - Mounts on top of headstock  |



## Static Lathe Guard

The shield provides a barrier between the chuck and work piece and the operator. Protects operator from chips and broken tools. The shield also deflects chips, coolant, and other particles. The shield hinges up to the back and out of the way for changing the chuck or work piece. Metal frame, nylon bushings and polycarbonate window construction. Optional interlock is available.

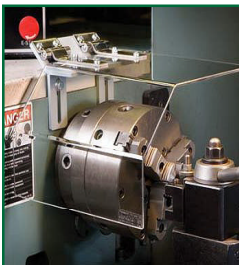
|  |  |
|--|--|
| <b>SF-L6</b> - 6" Maximum chuck size   | <b>SF-L18</b> - 18" Maximum chuck size         |
| <b>SF-L12</b> - 12" Maximum chuck size | <b>SF-100015</b> - Electrical interlock switch |



## Small Metal Chuck Guard

Designed for heavy duty applications where a steel shield is recommended on lathes up to 20" diameter. Locks in swing away or functional positions. Sturdy steel construction with polycarbonate window and baked-on finish. Easy to install. Attach mounting bracket with two screws. Available with optional interlocking mounting brackets.

|                                       |                                       |
|---------------------------------------|---------------------------------------|
| <b>13250</b> - 16" Maximum chuck size | <b>13251</b> - 20" Maximum chuck size |
|---------------------------------------|---------------------------------------|



## Left Hinged Chuck Shield

These heavy-duty lathe chuck shields are designed for lathes or similar machines. The shield provides a barrier between the chuck and work piece and individuals. The shield deflects chips, coolant, and other particles. The shield hinges left and rests above the headstock, making it easy to change the chuck or work piece.

|   |   |
|---|---|
| <b>SHD-119L</b> - 6" Maximum chuck size   | <b>SHD-4016L</b> - 24" Maximum chuck size |
| <b>SHD-2312L</b> - 12" Maximum chuck size | <b>SHD-5516L</b> - 32" Maximum chuck size |
| <b>SHD-2914L</b> - 18" Maximum chuck size | <b>SHD-6516L</b> - 40" Maximum chuck size |



## Metal Lathe Lead Screw Covers

Manufactured with a steel casing, the guard uses heavy weight neoprene nylon as its sheet medium, sprung to give a full closure against the leadscrew, therefore offering full protection for the operator. Working just like a window blind, the swarf and emulsion resistant heavy weight neoprene / nylon material pulls out of its spring loaded roller box as the lathe saddle moves, and recoils as the saddle returns. Standard sizes are 6" to 12" High x 12" to 118" Wide. Custom lengths available.

|  |
|--|
| <b>SF-LSC</b> - Custom fabricated - Many sizes available |
|--|



# Metal Lathe Protection



## Sliding Lathe Chuck Shield

Lathe Chuck shield affords operator protection against accidental machine contact and work-piece ejection. Manufactured from sheet metal with two 5mm clear polycarbonate vision panels, it has the added feature of twin roller bearing slides over the headstock to allow immediate operator access to the work area for component inspection and change. Optional interlock is available.

|                                      |   |
|--------------------------------------|---|
| <b>SA-1</b> - 24" Maximum chuck size | <b>100015</b> - Electrical interlock switch |
| <b>SA-2</b> - 40" Maximum chuck size |   |



## Slide-Track Lathe Guard

Heavy-duty, 14 gauge steel shield with polycarbonate window mounts over headstock, and slides over chuck for maximum protection. Allows easy access to the point of operation when power is off. All hardware is included with easy-to-follow instructions. Steel frame construction. Baked on painted finish.

|  |  |
|--|--|
| <b>FB-13079</b> - 24" Maximum chuck size | <b>FB-13082</b> - 32" Maximum chuck size |
| <b>FB-13080</b> - 24" Maximum chuck size | <b>FB-13083</b> - 40" Maximum chuck size |
| <b>FB-13081</b> - 28" Maximum chuck size | <b>FB-13084</b> - 48" Maximum chuck size |



## Sliding Safety Guard For Lathe - Interlocked

Protects the operator from direct contact with rotating components of the chuck, projections and lubricant coolant. Attachable on the machine head and equipped with wide visibility sliding shield, with various adjustments for an easy adaptation to various types of lathes. Available in three sizes, up to 400mm to 900mm. Complete with safety microswitch.

|  |   |
|--|---|
| <b>PTO 20/400</b> - 20" Maximum chuck size | <b>PTO20/800</b> - 36" Maximum chuck size |
| <b>PTO 20/600</b> - 28" Maximum chuck size | <b>800-262-8284</b> For more information  |



## Uni-Rail Lathe Chuck and Chip Shield - Interlocked

Heavy-duty, steel shields with polycarbonate windows, mounts behind the lathe and slides over chuck and point of operation for maximum protection. Allows easy access to the point of operation when power is off. Dual shields afford the operator protection against accidental machine contact and work-piece ejection. Moving the chuck shield to the left causes an interlock switch to open, sending a stop signal to the machine control. Custom built to a machine's measurements.

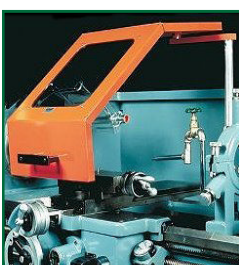
|  |
|--|
| <b>LRM710</b> - Call 800-262-8284 for more information |
|--|



## Cross Slide Lathe Guard

Heavy-duty, point-of-protection for lathes and grinding machines. Travels with carriage to provide operator protection wherever tool is cutting. The guard can be rapidly adjusted both vertically and horizontally to suit any given set-up or tooling and when at rest the guard can be pivoted upwards to give rapid access to chuck and work piece. Optional interlock is available.

|                                      |   |
|--------------------------------------|---|
| <b>SL6</b> - 6" Maximum chuck size   | <b>SL18</b> - 18" Maximum chuck size        |
| <b>SL12</b> - 12" Maximum chuck size | <b>100015</b> - Electrical interlock switch |



## Cross Slide Chip Shield

Extra heavy-duty, sliding chip shield for lathes and grinding machines. Travels with carriage to provide operator protection wherever tool is cutting. Easy to mount on cross slide. Fully adjustable in all directions. Heavy steel construction with thick, polycarbonate window. Frame is made of heavy gauge steel with high quality painted finish. Front panel is hinged and can be lifted for quick access to machine.

|                                       |                                       |
|---------------------------------------|---------------------------------------|
| <b>13086</b> - 20" Maximum chuck size | <b>13087</b> - 28" Maximum chuck size |
|---------------------------------------|---------------------------------------|

# Metal Lathe Protection



## Interlocked Lathe Chuck Shield

Interlocked chuck shields for metal turning lathes. When the interlocked shield is moved, the switch opens and sends a stop signal to the machine control. The safety switches are mounted in an IP 67 enclosure which makes them difficult to defeat. Tubular steel frame with polycarbonate screen. Exceeds OSHA and ANSI standards. Complies with EU Machinery Directive 2006/42/CE.

|  |  |
|--|--|
| <b>TF-300</b> - 12" Maximum chuck size | <b>TF-500</b> - 20" Maximum chuck size |
| <b>TF-400</b> - 16" Maximum chuck size | <b>TF-600</b> - 24" Maximum chuck size |



## Interlocked Lathe Chuck Shield

Protects the operator from direct contact with the chuck. Fixes to the side and front basement. Equipped with a swivelling transparent semicircular screen. Provided with a safety microswitch. Tubular steel frame with polycarbonate screen. Provided with a junction box for lateral or front installation. 90° rotation on a tempered steel rod.

|  |  |
|--|--|
| <b>PTO 01/300</b> - 12" Maximum chuck size | <b>PTO 01/500</b> - 20" Maximum chuck size |
| <b>PTO 01/400</b> - 16" Maximum chuck size | <b>PTO 01/600</b> - 24" Maximum chuck size |



## Metal Lathe Safety Sign

Rotating chucks and work pieces on lathes can cut, entangle and cause serious injuries. Sign warns the operator and pedestrians to stay away from the moving hazards.

**LBL-005**



## Self Ejecting Chuck Wrench

Spring-loaded, self-ejecting chuck wrenches designed for use with lathes and other machines equipped with manually adjusted chucks. Self-eject feature prevents lathe start-up while wrench is still in the chuck!

**SLCW** - Many sizes available



## Lead Screw Warning Sign

This sign hangs directly on the lead screw to warn the operator of an entanglement hazard. Sign is available in two sizes.

|                                       |
|---------------------------------------|
| <b>LRM107</b> - 5" x 3" - Aluminum    |
| <b>LRM109</b> - 7" x 5" - Heavy Vinyl |



## Self Ejecting Drill Chuck Key

Spring-loaded, self-ejecting chuck keys designed for use with drills and other machines equipped with manually tightened Jacobs style chucks. Self-eject feature prevents machine start-up while key is still in the chuck!

**SLCK** - Many sizes available

# Jointer Guards



## Jointer Rear Cutter Guard

Guard is designed to improve OEM guard for OSHA 29 CFR 1910.219 compliance. Helps cover upper belt and pulley on a Powermatic Model 60 jointer. Easily installed in minutes.

**LRM456**

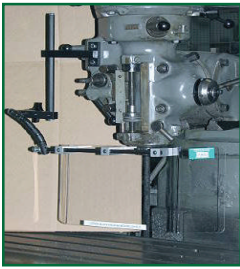


## Jointer Pulley Guard

This guard covers rear, exposed cutter heads on most jointers. Guard helps assure compliance with OSHA 29 CFR 1910.213 (j)(4). Installs in minutes. Powder coated, steel construction.

**LRM455**

# Milling Machine Protection



## Adjustable Chip Shield

Provides complete protection between cutting tool and operator's eyes. Flexible arm permits setting of chip shield at the correct height and angle for each setup. Flip shield up to load part and down for machining. Special flexible shaft makes shield stay put - no springback. Can be installed in minutes on CNC mills, conventional milling machines and others. Complete with mounting bracket and all hardware.

**LRM605**



## Vertical Milling Machine Guard

The two half assemblies are mounted in opposition to form either a complete three-sided box or an extended line across the front of the machine table. When the spring-loaded plunger pin is released, the guard can be hinged aside allowing instant access to the machine table.

| Model        | Vertical Height | Table Width      | Table Length     |
|--------------|-----------------|------------------|------------------|
| <b>SF-M1</b> | 7.75" to 13.75" | 14.75" to 20.75" | 27.50" to 34.50" |
| <b>SF-M2</b> | 9.75" to 17.75" | 18.75" to 31.50" | 36.50" to 49.25" |



## Enclosed Milling Machine Table Guard

This guard is designed for turret milling machines. Totally encloses front and side of machine table. Rear hinged to give access to complete table area when in open position. Steel tubular frame and 5mm polycarbonate windows. Twin interlock and positive manual latch. Adjustable with parallel rails which are T bolted to table slots. Back Guard and Swarf Trays are also available.

**SF-EM-01** - Table width 24" to 40"

**SF-EM-ST** - Optional Swarf Tray

**SF-EM-03** - Table width 40" to 60"

**SF-EM-BG** - Optional Back Guard



## Horizontal Milling Machine Guard

Sturdy, adjustable enclosure for horizontal milling. Designed to enclose dangerous milling cutters and restrict flying swarf and coolant. Visors adjust to allow entrance for work piece only. Easy to install. Attach to overarm glide using correct bracket. Steel construction with 6mm polycarbonate windows.

**SF-13-A** Single arm overarm slide

**SF-13-B** Double arm overarm slide

**SF-13-C** Vee slide

Choose Overarm Style



Single Arm



Double Arm



Vee Slide



## Vertical Milling Machine Cutter Guard

Designed to fit most milling machines, the cutter guard is manufactured from sheet steel with a clear 4mm adjustable polycarbonate visor. The unique design totally encloses the danger zone yet enables the guard to hinge aside to allow immediate access for drill and chuck change. Attaches by use of fixed pinch screw brackets. May also be installed to the underside of the head using machine screws. Remains stationary allowing depth stop collar and chuck to pass through length adjustable visor. Optional interlock switch.

**SF-15-MAN** - Mill chuck guard w/o interlock

**SF-15-INT** - Mill chuck guard with interlock



## Draw Bar Shield

Turning shafts on milling machines must be guarded. This shield covers the turning draw bar of all common vertical mills. A powerful ring magnet in the base of the guard secures it to the top of the mill.

**LRM615**



## Milling Machine Belt Cover

OSHA requires under 29 CFR 1910.219 that all mechanical power-transmission apparatuses on machinery that creates a hazard be covered. Made of durable cast aluminum, the hinged covers are sold in pairs for the left and right side.

**LRM265**



# Milling Machine Protection



## Vertical Milling Machine Shield with Interlock Switch - Curved Shield

Universal safety guard with articulated arms. The articulated joints are held in place with a friction disc, making it easy to adjust the shield. Equipped with semi-circular shield with double opening system. Shield opens horizontally on its axis and swings outside the field of work. Complete with double safety microswitch. When the interlocked shield is moved, the switch opens and sends a stop signal to the machine control.

**PFR 01/300** - 12" W x 8" H Shield

**PFR 01/500** - 20" W x 9" H Shield

**PFR 01/400** - 16" W x 9" H Shield

**PFR 01/600** - 24" W x 9" H Shield



## Vertical Milling Machine Shield with Interlock Switch - Curved Shield

Universal safety guard with articulated arms. The articulated joints are held in place with a friction disc, making it easy to adjust the shield. Equipped with a winged shield with double opening system. Shield opens horizontally on its axis and swings outside the field of work. Complete with double safety microswitch. When the interlocked shield is moved, the switch opens and sends a stop signal to the machine control. Metal frame construction with polycarbonate shield.

**PFR02/625** - 24" L x 6.75" W x 9.75" H

**PFR02/730** - 28.5" L x 7.85" W x 12" H



## Interlocked Milling Machine Shield

This shield is designed to enclose dangerous milling cutters and restrict flying swarf and coolant. The arm has flexible joints and is balanced and kept in position by a gas spring. Just move it into a desired position and it stays there. Adjustment in 3 axis - Up / Down, In / Out, and Side to Side. Shield includes 3 safety microswitches to prevent mill operation if the shield is opened, pushed to the side or lifted up.

**FBB-300** - 12" x 9.5" Shield

**FBB-500** - 20" x 9.45" Shield

**FBB-400** - 16" x 9.5" Shield

**FBB-600** - 24" x 9.45" Shield



## Interlocked Milling Machine Shield for Small Mills

Protects the operator from inadvertent blade contact, chips, and broken blades. Shield equipped with innovative system of vertical opening, in the positions of 60°, 120°, and 180°. Supported by adjustable hexagonal arms, reversible between themselves to make it available to various installation configurations. The safety microswitch is integrated to the hinge. Semi-hexagonal shield in polycarbonate. Shield flips up and down. Mill will not run while the shield is open when correctly wired.

**PFR20/218** - 10" L x 4.25" W x 7" H

**PFR20/320** - 12" L x 5" W x 7.75" H



## Horizontal Milling Machine Shields

Protects the operator from direct contact with horizontal shaft spindle and rotating parts that are accessible from both sides of the cutter head. Set of two shields attaches to the both sides of the mill slide. Equipped with axially and radially adjustable shields, that may be trimmed if needed to prevent interference with the cutter head and parts. Integrated safety microswitches built into the body of the shield.

**PFR10/420** - 15.75" x 7.75" Shield - 32" Arm

**PFR10/530** - 19.75" x 11.75" Shield - 36" Arm

**PFR10/430** - 15.75" x 11.75" Shield - 32" Arm



## Vertical Boring Machine Shields - MillSafe

The LRM MillSafe shield system helps provide the protection you need against flying chips, coolant splash and inadvertent contact with the chuck or work piece. Features counter-balanced shields that adjust easily and stay where released. Constructed from industrial grade materials including aluminum shields, stainless steel, UHMW linear bearings, and plated steel frame components to resist corrosion. Each MillSafe VBM shield set is custom crafted to fit your machine. Professional installation is available.

Call 1-800-262-8284 for more information.

# Scroll Saw



## Scroll Saw Chip Shield

Protects operator from chips and broken blades. Mounts directly to machine using existing fasteners. Fully adjustable. Clear polycarbonate shield. Installs on most scroll saws in minutes. Mounting brackets are included.

**LRM415**

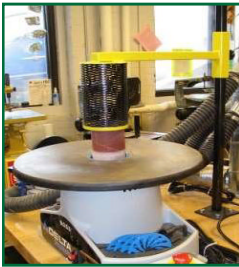


## Flexible Arm Chip Shield

Provides Complete Protection between the saw blade and the operator's eyes. Flexbar Arm permits setting of the shield at the correct height and angle for each setup. All mounting brackets included. 6" wide x 8" high shield.

**13466**

# Spindle Sander



## Bench Top Mount - Spindle Sander Shield

Protects user from unused portion of sander spindle. Installs easily by anchoring stand to machine table with included bolts.

- Anchor stand to the bench that the machine sits on
- Fully adjustable - Protects operator from unused portion of the spindle
- Guard is available with 4" and 6" diameter basket

**LRM363** - 4" Spindle basket

**LRM366** - 6" Spindle basket



## Table Edge Mount - Spindle Sander Shield

Protects user from unused portion of sander spindle. Installs easily by attaching stand to machine table edge with included bolts. Protects operator from unused portion of the spindle

- Mounts to the edge of the table
- Fully adjustable - Horizontally and Vertically

**LRM364** - 4" Spindle basket

**LRM362** - 6" Spindle basket



## Floor Mount and Base Mount - Spindle Sander Shields

Protects user from unused portion of sander spindle. Installs easily by anchoring stand to the floor or to the spindle sander base.

- Fully adjustable - Horizontal and Vertical
- Guard is available with 4" and 6" diameter basket
- Available in two models -**Floor mount** & **Base mount** fits State brand spindle sander

**LRM365** - 4" Spindle basket - Floor Mount

**LRM361** - 4" Spindle basket - Base Mount

**LRM360** - 6" Spindle basket - Floor Mount

**LRM367** - 6" Spindle basket - Base Mount



## Lower Spindle Sander Shield

Lower spindle sander guards are designed to protect the operator from inadvertent contact or entanglement with the exposed portion of the spindle below the work table.

Hinged design allows for the guard to lift out of the way. Easily mounts with two provided screws. Painted safety-yellow.

**LRM350** - 7" Wide - Front & rear guards

**LRM352** - 12" Wide - Front & rear guards

# Grinder Shields



## Grinding Machine Guards

Protect yourself by mounting these shields on grinders and buffers.

- Frame is heavy-gauge, molded nylon
- Shield swivels up and down
- Panel is clear 5mm polycarbonate
- Mounting bracket included

|   |   |
|---|---|
| <b>SF-GG-03</b> - For 6", 7" & 8" grinders    | <b>SF-GG-05</b> - For 10" grinders          |
| <b>SF-GG-04</b> - Replacement panel for 6"-8" | <b>SF-GG-06</b> - Replacement panel for 10" |



## Single Arm Grinder Shield

Each shield assembly below consists of a flat polycarbonate shield that is 3/16" thick, a shield bracket assembly, a snake arm with a direct-mount base, and mounting hardware. The direct-mount base can be fastened to most any flat surface at least 2" x 1" with the included mounting hardware.

|   |
|---|
| <b>SHD-8165F</b> - 16" x 5" shield - 8" Arm   |
| <b>SD-12165F</b> - 16" x 5" shield - 12" Arm  |
| <b>SHD-18165F</b> - 16" x 5" shield - 18" Arm |



## Dual Arm Grinder Shield

Each shield assembly below consists of a flat polycarbonate shield that is 3/16" thick, a shield bracket assembly, two snake arms with direct-mount bases, and mounting hardware. 14"L x 5"H shield.

|                                      |
|--------------------------------------|
| <b>SHD-8145F:</b> With (2) 8" Arms   |
| <b>SHD-12145F:</b> With (2) 12" Arms |
| <b>SHD-18145F:</b> With (2) 18" Arms |



## Grinder Safety Scale

This bench grinder safety scale has been designed to check the openings between the grinding wheels and the tongues and work rests on bench grinders for compliance with OSHA 29 CFR 1910.215, ANSI B11.9, and ANSI B7.1 grinder safety standards. The orange colored scale is made out of thick anodized aluminum and has easy-to-read graphics.

|                 |
|-----------------|
| <b>BGSS-102</b> |
|-----------------|



## Interlocked Safety Visors

Interlocked shields for pedestal and bench grinders in several sizes and styles. Protects the operator's face from sparks and emery projections. Safety switch integrated to the hinge. When the interlocked shield is moved to the side, the microswitch opens and sends a stop signal to the machine control. The safety switches are mounted in an IP 67 enclosure. Available in single and dual shield models.

|   |  |
|---|--|
| <b>PMA 10/112</b> - Single shield - 6.3" x 5.7" | <b>PMA 11/112</b> - Dual shields - 6.3" x 5.7" |
| <b>PMA 10/116</b> - Single shield - 7.8" x 7.3" | <b>PMA 11/116</b> - Dual shields - 7.8" x 7.3" |



## Bench Grinder Adjustment Sign

This sign can help reduce OSHA violations because it clearly depicts a side view of a bench grinder showing the proper adjustments of the work rest and tongue. Adhesive backed. 2.5" W x 3.5" H.

|                |
|----------------|
| <b>LBL-001</b> |
|----------------|



## Bench Grinder Safety Sign

Rotating wheels on Bench Grinders can cut, dismember, snag, and entrap, causing serious injury or death. Lock out power before servicing. Adhesive backed. 5" L x 6" H.

|                |
|----------------|
| <b>LBL-006</b> |
|----------------|



# Perimeter Guarding



## Self-Closing Safety Gate

The self-closing ladder gate is tough, economical, and closely matches the railings and their dimensional requirements provided for by Federal OSHA. When the gate is installed with the top rail at 42", the bottom rail of the gate is positioned at a height of 21". Installs in 5 minutes with one wrench. Tubular steel construction and powder coated safety yellow. Six inches of adjustability for a perfect fit.

|                                   |                                   |                                   |
|-----------------------------------|-----------------------------------|-----------------------------------|
| <b>500366</b> - 18" - 24" opening | <b>500368</b> - 30" - 36" opening | <b>500370</b> - 42" - 48" opening |
| <b>500367</b> - 24" - 30" opening | <b>500369</b> - 36" - 42" opening |                                   |



## Safety Railing System

The Safety Railing System is an economically priced handrail system that is easily assembled with just a hex key. Create a tough and durable barrier in just minutes with no welding. Tough, powder coated 1-1/2 inch Pipe (1.90 inch OD). Mounts with standard anchor bolts (not supplied). Kits include pipe and galvanized fittings. Exceeds OSHA and BOCA standards.

|                                |  |                                    |
|--------------------------------|--|------------------------------------|
| <b>BW-500136.40</b> - 6' Rail  | <b>BW-500138.40</b> - 6' x 6' Corner           | <b>BW-500139.40</b> - 6' Extension |
| <b>BW-500137.40</b> - 12' Rail | <b>BW-500140.40</b> - 6' - 90 Degree Extension |                                    |



## Movable Machine Barricade

Movable barricade panels may be used to temporarily block access to machinery undergoing maintenance or repairs. Folds flat for easy storage when not in use. Each panel is 16" W x 71" H. Available in two panel (33" W) and four panel (66" W) models. Optional hinges and top caps are used to connect an unlimited number of panels together. Light weight aluminum frame construction. Yellow panels for high visibility.

|  |  |
|--|--|
| <b>FB-13035</b> - 4 Panel Complete Set | <b>FB-13037</b> - Hinge to connect panel sides |
| <b>FB-13036</b> - 2 Panel Complete Set | <b>FB-13038</b> - Cap to connect panel tops    |



## Industrial Safety Fencing

The fixed fencing system prevents employees from entering into dangerous work areas. Features 2" x 2" tubular steel posts and 8 gauge, welded wire mesh with 1½" x 3" openings. Standard doors including sliding and swing and include locks with keys to prevent unwanted entry. Optional interlocks are available to prevent access while the cell is in operation. Components are powder coated for long lasting performance in standard safety black and yellow color scheme. Meets or exceeds OSHA 1910 Subpart O - Machinery and Machine guarding.

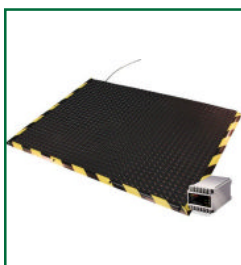
|   |
|---|
| <b>FR-884</b> - Several panels, doors and accessories available |
|---|



## Safety Laser Scanners

Two-dimensional laser scanner effectively protects personnel, as well as stationary and mobile systems within a user designated area. The highly flexible, protective and warning fields can be set to match the shape of the work area. Compact design, simple installation and easy-to-use software provide efficient integration into work zones. All configuration data, such as the definition of the zones, the resolution or the response times, is defined with the RS4 soft configuration and diagnostics software. System meets all requirements for Type 3 per IEC 61496.

|   |
|---|
| <b>Part No. RS4</b> - Several models and configurations available |
|---|



## Safety Mats

The Zippswitch Safety Mat is an industrial grade, pressure sensitive, presence sensing device. The Zippswitch Safety Mat uses a 4-wire, normally open switch circuit. When contact is made with the safety mat, the safety mat switch closes the circuit and emits a signal to the machine controls in response. When activated, the Safety Mat acts as an emergency stop that removes power from the machine. The Safety Mat includes ramped edge trim with mounting holes. The Safety Mat includes a 2 year, 5 million activation warranty.

|   |
|---|
| <b>Part No. ZS-MS</b> - Several models and configurations available |
|---|

# Chip & Splash Shields



## Magnetic Base Chip Shield - Flat Shield

Made from tough, shatterproof polycarbonate for maximum optical clarity. Resists impact, hot chips, oils, and splashing coolants. Heavy duty, flexible arm holds shield in the ideal position for your task. Vinyl covering protects the flex arm from contaminants. Includes 100 lbs. magnetic base.

|   |   |
|---|---|
| <b>MF-95204</b> - 6" x 6" Flat Shield - 12" Arm   | <b>MF-95204</b> - 6" x 6" Flat Shield - 18" Arm   |
| <b>MF-95203</b> - 8" x 8" Flat Shield - 12" Arm   | <b>MF-95203</b> - 8" x 8" Flat Shield - 18" Arm   |
| <b>MF-95202</b> - 10" x 10" Flat Shield - 12" Arm | <b>MF-95202</b> - 10" x 10" Flat Shield - 18" Arm |



## Direct Mount Chip Shield - Flat Shield

Made from tough, shatterproof polycarbonate for maximum optical clarity. Resists impact, hot chips, oils, and splashing coolants. Heavy duty, flexible arm holds shield in the ideal position for your task. Vinyl covering protects the flex arm from contaminants. Attaches to machine with two machine screws.

|   |   |
|---|---|
| <b>MF-95220</b> - 6" x 6" Flat Shield - 12" Arm   | <b>MF-95224</b> - 6" x 6" Flat Shield - 18" Arm   |
| <b>MF-95219</b> - 8" x 8" Flat Shield - 12" Arm   | <b>MF-95223</b> - 8" x 8" Flat Shield - 18" Arm   |
| <b>MF-95218</b> - 10" x 10" Flat Shield - 12" Arm | <b>MF-95222</b> - 10" x 10" Flat Shield - 18" Arm |



## C-Clamp Base Chip Shield - Flat Shield

Made from tough, shatterproof polycarbonate for maximum optical clarity. Resists impact, hot chips, oils, and splashing coolants. Heavy duty, flexible arm holds shield in the ideal position for your task. Vinyl covering protects the flex arm from contaminants. C-Clamp base attaches to surfaces up to 2" thick.

|   |   |
|---|---|
| <b>MF-95220</b> - 6" x 6" Flat Shield - 12" Arm   | <b>MF-95224</b> - 6" x 6" Flat Shield - 18" Arm   |
| <b>MF-95219</b> - 8" x 8" Flat Shield - 12" Arm   | <b>MF-95223</b> - 8" x 8" Flat Shield - 18" Arm   |
| <b>MF-95218</b> - 10" x 10" Flat Shield - 12" Arm | <b>MF-95222</b> - 10" x 10" Flat Shield - 18" Arm |



## Curved Safety Shields

Features an 11" x 12" shield, made from tough shatterproof polycarbonate for maximum optical clarity. Resists impact, hot chips, oils, and splashing coolants. Curved design maximizes containment of material. Flexible arm holds shield in the ideal position for your task. Vinyl covering protects the flex arm from grease, oil and contaminants to maintain maximum holding power. Available with a magnetic or C-Clamp base. Replacement shields are available.

|   |  |
|---|--|
| <b>MF-95250</b> - 18" Arm (Magnetic Base) | <b>MF-95251</b> - 18" Arm (C-Clamp Base) |
|---|--|



## U-shaped Snake Arm Shield

Provides operator protection from chips and broken drills on drill presses, milling machines and other drilling equipment. Each shield assembly below consists of a U-shaped polycarbonate shield that is 3/16" thick, a shield bracket assembly, a snake arm with a direct-mount base, and mounting hardware. The direct-mount base can be fastened to most any flat surface with the included mounting hardware. **(L x W x H)**

|   |   |
|---|---|
| <b>SHD-12126U</b> - 6" x 3" x 6" shield - 12" arm | <b>SHD-121510U</b> - 5" x 5" x 10" shield - 12" arm |
| <b>SHD-12157U</b> - 5" x 5" x 7" shield - 12" arm | <b>SHD-12169U</b> - 10" x 3" x 9" shield - 12" arm  |

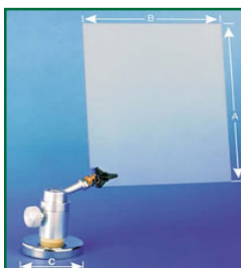


## Portable Shields - Polycarbonate

These 3/16" thick polycarbonate portable shields can be used on mills, drills, lathes, and any other machines that need a handheld or attached shield to protect the operator. They are available in two sizes. The shield can be stored on the machine, a wall, or a post by hanging the shield on the hook provided.

|   |
|---|
| <b>SHD-1512-FP</b> - Portable Shield With 15 7/8" x 12 7/8" Flat Shield |
| <b>SHD-2315-FP</b> - Portable Shield With 23 7/8" x 15 7/8" Flat Shield |

# Chip & Splash Shields



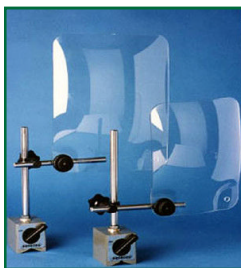
## Flat Chip Shields - Magnetic Base

Protect your eyes against chips and liquid burns. Swivel base affords a large variety of shield positioning instantly. Shield swivels 360 degrees in two planes and 180 degrees in 3rd plane. A small twist on locking knob positively locks all. Cantilever design leaves room for shield to cover work area. Shield is made out of 3/16" polycarbonate and is sold in three sizes. Replacement shields are available. Includes magnetic base with 80 lbs. of pull.

**FB-13010** - 4" x 6" Shield

**FB-13011** - 6" x 8" Shield

**FB-13012** - 8" x 12" Shield



## Curved Splash Shields - Magnetic Base

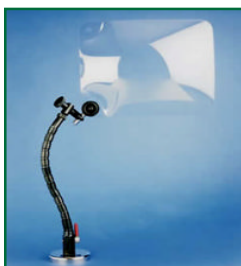
Safety shield on magnetic stand with On / Off lever. A flip of the lever locks the magnetic base securely in place. Overall height of stand is 10" to top of post with a 7" extension rod. Includes magnetic base with 80 lbs of pull. Shields made of durable 1/8" polycarbonate.

**FB-13099-L** - 8" x 10" Curved shield

**FB-13101-L** - 12" x 16" Curved shield

**FB-13100-L** - 10" x 12" Curved shield

**FB-13102-L** - 16" x 20" Curved shield



## Flexible Arm Chip Shield - Magnetic Base

Protects your eyes against chip & liquid splash. Safety shield on Flexbar universal positioning arm. Quick action, locking cam. Shield swivels 360 degrees and locks positively where placed. 14" overall height. Shields made of 1/8" thick polycarbonate. Flat and concave shields available.

**FB-13313** - 6" x 8" - Concave shield

**FB-13316** - 6" x 8" - Flat shield

**FB-13314** - 8" x 10" - Concave shield

**FB-13317** - 8" x 10" - Flat shield

**FB-13315** - 10" x 12" - Concave shield

**FB-13318** - 10" x 12" - Flat shield

# Miscellaneous Guarding



## ABS Belt & Pulley Covers

These ABS covers protect the operator from contact with rotating parts, specifically drive belts and pulleys. Available in yellow, black, and orange.

The guards come in many sizes and shapes including rectangular, oblong, and tapered. Effective guarding for less than the cost of a custom guard. Give us a call for sizes and pricing.



## ABS Bearing Covers

These ABS covers protect the operator from contact with rotating parts, specifically motor bearings and shafts. Available in yellow, black, and orange.

The guards come in many sizes and shapes including rectangular, oblong, and tapered. Effective guarding for less than the cost of a custom guard. Give us a call for sizes and pricing.



## Rotating Shaft Covers

Helical metal covers that surround rotating shafts to protect the operator from incidental contact with moving parts. The spring action holds the cover in place as it expands and contracts.

Blue carbon steel provides long life and provides maximum protection. Custom fabricated item. Please call for measuring instructions and pricing.



## Foot Pedal Covers

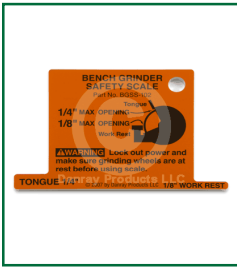
This cover is used to prevent falling items and ensure operator missteps do not accidentally engage a machine's foot switch. Constructed of heavy duty steel and power coated safety orange for high visibility. Foot pedal not included. Available in two sizes.

**LRM-A15** - 6" L x 6" W x 6" H

**LRM-A19** - 11" L x 4.5" W x 6" H



# Safety Scales



## Grinder Safety Scale

This bench grinder safety scale has been designed to check the openings between the grinding wheels and the tongues and work rests on bench grinders for compliance with OSHA 29 CFR 1910.215, ANSI B11.9, and ANSI B7.1 grinder safety standards. The orange colored scale is made out of thick anodized aluminum and has easy-to-read graphics.

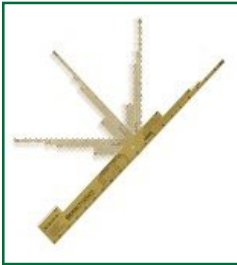
**BGSS-102**



## Fan Guard Safety Scale

When the periphery of the blades of a fan is less than seven (7) feet above the floor or working level, the blades shall be guarded. The guard shall have openings no larger than one-half (1/2) inch. (OSHA 29 CFR 1910.212(a)(5)). This safety scale is a tool to easily check the openings in a fan guard. The blue-colored scale is made out of durable anodized aluminum and has easy-to-read text and graphics that will not rub or scratch off. It is about the size of a credit card, which makes it convenient to carry.

**FGSS-150**



## Guard Safety Scale

When barrier guards have openings in them, the openings must be checked for safety compliance. This guard safety scale can be used to check the openings for compliance with current ANSI standards. The gold-colored, folding scale has English units on one side and metric units on the other. It is made out of anodized aluminum and has easy-to-read text and graphics that will not rub or scratch off. It can be used during the design, installation, and inspection of barrier guards to make sure they comply with applicable machine safety standards.

**GSS-101**

# Spring Loaded Keys & Wrenches



## Safety Chuck Wrench

Self-ejecting chuck wrenches are designed for use with lathes and other machines equipped with manually adjusted chucks. Self-eject feature prevents lathe start-up while wrench is in the chuck. Spring loaded sleeve ejects the wrench from the chuck after each use. Chamfered end for easy entry.

|                                |                                |                                 |
|--------------------------------|--------------------------------|---------------------------------|
| <b>FB-15470</b> - 9/32" Square | <b>FB-15474</b> - 1/2" Square  | <b>FB-15478</b> - 5/8" Square   |
| <b>FB-15471</b> - 5/16" Square | <b>FB-15475</b> - 1/2" Hex     | <b>FB-15479</b> - 11/16" Square |
| <b>FB-15472</b> - 3/8" Square  | <b>FB-15476</b> - 5/8" Hex     | <b>FB-15480</b> - 3/4" Square   |
| <b>FB-15473</b> - 7/16" Square | <b>FB-15477</b> - 9/16" Square | <b>FB-15481</b> - 3/4" Hex      |



## Self Ejecting Drill Chuck Key

Spring-loaded, self-ejecting chuck keys designed for use with drills and other machines equipped with manually tightened Jacobs style chucks. Self-eject feature prevents machine start-up while key is still in the chuck!

| Part Number | Key Number   | Jacobs Chuck Number |
|-------------|--------------|---------------------|
| <b>SK1</b>  | K1, S7, T1   | 1A, 1B, 1BS         |
| <b>SK2</b>  | K2, S17, T2  | 2A, 2B, 2BA         |
| <b>SK3</b>  | K3, S10, T6  | 3, 3A, 3B, 3KD      |
| <b>SK4</b>  | K4, S13, TK4 | 16N, 18N, 36        |
| <b>SK30</b> | K30, R13, S8 | 30, 30B, 31-01      |
| <b>SK32</b> | K32, S9, T5  | 11N, 32, 32B        |

# Machine Lamps



## Magnetic Base Task Light

The lamp is held in place with a 100 lbs pull, 3" diameter magnet base. Vinyl coated, flexible arm ensures durable position of the light. The flexible arm is available in 18" and 24" lengths. Bright, conical reflector puts light where you need it. Uses any A19 incandescent bulb up to 100 watts (not included). Shade is 5.75" high by 4.5" diameter and rotates 270°. C-UL listed. Cord is three wire, 18 gauge and six feet long.

**MF-95020** - 18" arm - Magnetic base

**MF-95021** - 24" arm - Magnetic base



## C-Clamp Base Task Light

C-Clamp base attaches to surfaces up to 2 inch thick. Vinyl coated, flexible arm ensures durable position of the light. The flexible arm is available in 18" and 24" lengths. Bright, conical reflector puts light where you need it. Uses any A19 incandescent bulb up to 100 watts (not included). Shade is 5.75" high by 4.5" diameter and rotates 270°. C-UL listed. Cord is three wire, 18 gauge and six feet long.

**MF-95030** - 18" arm - C-Clamp base

**MF-95031** - 24" arm - C-Clamp base



## Direct Mount Task Light

Installs easily. Drill two holes and fastened included screws through the mounting base. Vinyl coated, flexible arm ensures durable position of the light. The flexible arm is available in 18" and 24" lengths. Bright, conical reflector puts light where you need it. Uses any A19 incandescent bulb up to 100 watts (not included). Shade is 5.75" high by 4.5" diameter and rotates 270°. C-UL listed. Cord is three wire, 18 gauge and six feet long.

**MF-95049** - 18" arm - Direct mount base

**MF-95050** - 24" arm - Direct mount base



## Compact Work Lights

Compact industrial lighting for excellent illumination where space is tight and light is critical. Designed for enclosure or area lighting to illuminate a large area with an even pattern of light and no shadows. Available in flat-mount or 30 mm base-mount housings. Cabled and Quick Disconnect models available. 12 to 30V dc operation. Low power consumption; < 2 watts. ON-OFF push-button models available. Many models and options available. Call 800-262-8284 for product details and pricing.

**BE-WL50**



## Work Light Strips

Cabled or quick-disconnect models with several mounting options allow for easy installation and convenient cascading of lights to meet a user's needs. Illuminates a large area with an even pattern of light and no shadows; diffused window models available. Available in 6 different colors (cool and warm white, red, green, blue, and yellow). Rugged aluminum housing - sealed IP67 and IP69K models available. Lighted lengths available from 145 mm to 1130 mm. Call 800-262-8284 for product details and pricing.

**BE-WLS-28**



## Area Work Light

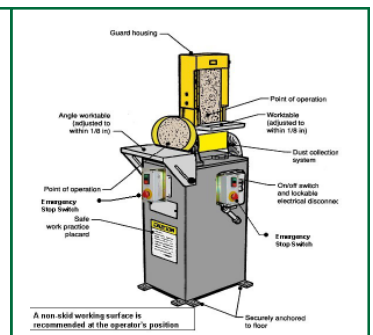
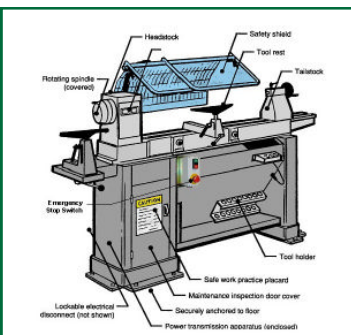
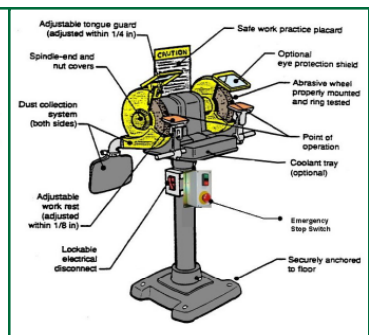
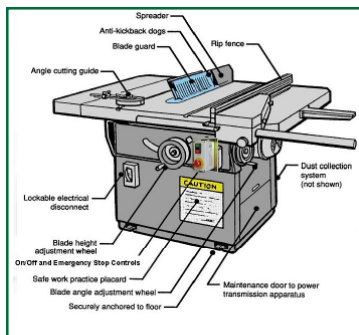
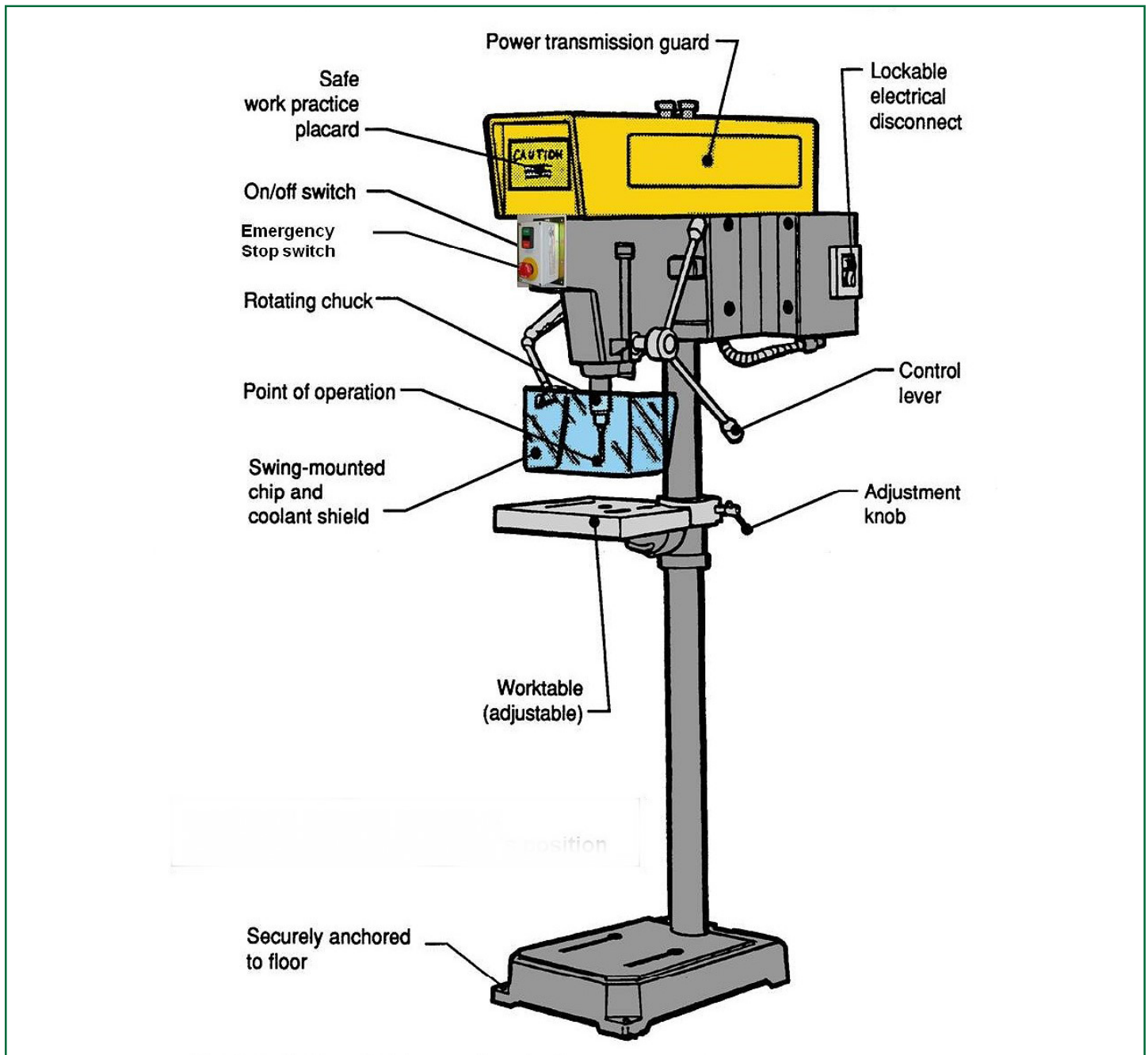
Work Area Lights provide stable, durable and uniform bright lighting for quality inspection in pharmaceutical packaging. With extremely bright LEDs, these lights use considerably less energy, and can last significantly longer than fluorescent lighting with over 50,000 hours of continuous light. This durable, bright light source operates at a supply voltage of 10-30 Vdc. Various size and mounting options are available to fit any inspection station and to meet user needs. Call 800-262-8284 for product details and pricing.

**BE-WLA**

# DIY Machine Safety Survey

Do you know if your machines comply with current safety standards? This free download will help you uncover the most common safety problems with woodworking and metal working machines.

Download the DIY survey at [www.lovegreen.com/safety-survey.html](http://www.lovegreen.com/safety-survey.html)





# Warning Signs & Labels



Bench Grinder  
LBL-001



Cutting Machines  
LBL-002



Drilling Machines  
LBL-003



Milling Machines  
LBL-004



Lathes  
LBL-005



Bench Grinders  
LBL-006



Surface Grinders  
LBL-007



Sawing Machines  
LBL-008



Safety Blocks  
LBL-009



Power Presses  
LBL-010



Power Press Brakes  
LBL-011



Shears  
LBL-012



Ironworkers  
LBL-013



Riveters  
LBL-014



Roll Benders  
LBL-015



Spot Welders  
LBL-017



Robots  
LBL-022



Sanders  
LBL-024



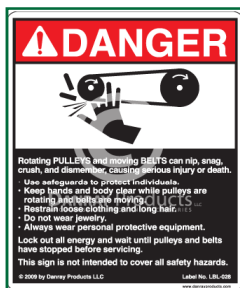
Gears  
LBL-025



Rolls  
LBL-026



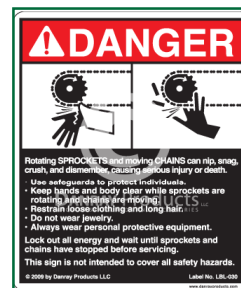
Flywheels  
LBL-027



Pulleys & Belts  
LBL-028



Drive Shafts  
LBL-029



Sprockets & Chains  
LBL-030



Lead Screw Warning  
LRM-107

# Ground Fault Circuit Interrupter



## In-Line GFCI Cord Set - Single Tap

The Portable GFCI power adapter provides protection for areas where water may be encountered. Plug the cord end into a conventional home receptacle and the female end is now protected. The inline design enables the plug to enter space restricted receptacles. These products include an automatic reset feature which allows the GFCI to automatically reset after interruption of primary power. The device MUST be manually reset after a ground fault occurrence. UL, cUL listed. NEMA 5-15 plug.

**TM-8018** - 18 Inch Cord



## In-Line GFCI Cord Set - Triple Tap

The Portable GFCI power adapter provides protection for areas where water may be encountered. Plug the NEMA 5-15 plug into a conventional receptacle and the 3 (three) female ends are now protected. The inline design enables the plug to enter space restricted receptacles. These products include an automatic reset feature which allows the GFCI to automatically reset after interruption of primary power. The device MUST be manually reset after a ground fault occurrence. UL, cUL listed.

**TM-8024** - 2 Foot Cord



## Right Angle GFCI Plug

The Portable GFCI power adapter provides protection for areas where water may be encountered. User attaches the Plug to existing cord to make the cord protected. Comply with UL Standard 943 rev. 2004. UL, CUL 125V/15A. NEMA 5-15 P&R. Accepts SJTW Cord -12/3, 14/3, 16/3 AWG. Class (A) 4-6mA trip level shock protection. Automatic reset and LED Power "ON" indicator. The device MUST be manually reset after a ground fault occurrence.

**TM-4009** - Black

**TM-4010** - Yellow

# School Safeguarding



**Machine Guarding** - Does your school shop equipment comply with current safety standards? We can help you find out with an on-site machine safety survey. Our trained professionals will come to your site, perform a machine safeguarding evaluation, and recommend a proactive, corrective plan. Call today to see if your school qualifies for a free, no obligation inspection.



**Pump Shaft Guarding** - OSHA standards require that rotating shafts under seven feet from the working surface be protected by a stationary guard. Lovegreen fabricates custom pump shaft guarding to meet this requirement. We also carry a line of ABS and steel guards that attach to either the pump or the floor.



**Stairways, Railings, Ladders & Catwalks** - Existing walkways and railings may not be compliant with today's safety standards. Our fabrication shop and millwrights will manufacture compliant interior and exterior stairway and railing systems to meet your needs. In-house engineering services are available. Call today to see if your school qualifies for a free, no obligation inspection.



**Air Handler Equipment** - OSHA and ANSI standards require that all belts, pulleys, gears, shafts and moving parts under seven feet from the working surface be protected by a stationary guard. We fabricate custom guards in a variety of shapes and sizes using steel and polycarbonate to meet this requirement. Call for a free estimate.



# Terms and Conditions

## Pricing

Prices are in U.S. Dollars and are subject to change. Please call us for current prices if you require this information prior to placing your order. We guarantee our written US Domestic quotations for 30 days. When placing your order, please reference our quoted prices or our quote number. If you place your order by phone, we will confirm our current price at that time. Prices do not include any shipping or handling charges, nor do they include any taxes, duties or custom fees.

## Payments

We accept Visa, Master Card, American Express and Paypal. You may order by purchase order after establishing a credit account. A credit application may be requested by email at sales@lovegreen.com. Online orders must be paid in full before an order is shipped. Purchase orders must be paid in full no more than 30 days from the date of invoice. (Net 30). Past-due accounts will incur a 1.5% monthly service charge, (18% per annum) and will be placed on hold until the past-due balance is paid.

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Product pricing and availability are subject to change at any time. In no event will Lovegreen be liable for any indirect, special, incidental, or consequential damages, whether based on contract, tort, or any other legal theory, including without limitation loss of profits, loss of business, or other economic damages, even if advised of the possibility of such loss or damage.

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To protect your trust, our web site is secured by a Secure Sockets Layer (SSL). When you connect to the Lovegreen Services shopping site using the secure server, all sensitive information, including your credit card number, is encrypted so that the only people who can read it are you and the Lovegreen Services person you are contacting. Credit card information sent from addresses beginning with https is encrypted before transmission. We DO NOT sell, rent or share your e-mail address with any outside organization.

## HOW TO ORDER

### Online

[www.lovegreen.com/shop](http://www.lovegreen.com/shop)

### Phone

1-800-262-8284 (7am to 5pm CST)

### Fax

1-651-890-8370 (24/7)

### Email

sales@lovegreen.com

### Mail - Send Purchase Orders to:

Lovegreen Risk Management  
2280 Sibley Court  
Eagan, MN 55122



## Shipping

Domestic orders are shipped using UPS Ground Service. In-stock merchandise will normally ship the next business day after the order is received and arrive within 3-6 business days. Express delivery service is available using your UPS or Fed Ex account number.

Items that are oversized, weigh over 70 pounds, or require special handling will incur an additional handling fee and will be shipped the best / most economical way. Orders shipped to a MN address will be charged sales tax according to current rates.

All orders shipped outside the Continental United States will be billed at actual shipping costs. If you would like a freight quote or have any question about shipping policies, please call 1-800-262-8284. Orders are shipped using UPS Ground Service or best way. Broker, duty and custom fees are the responsibility of the receiver and are not included in the shipping cost.

All orders are shipped FOB shipping point and will be insured for the standard amount provided by UPS. In the event of damage or loss, the customer will be responsible for making any and all claims directly against the carrier.

## Returns

We are committed to your satisfaction, and will happily process your return or exchange according to the following procedures. If, for any reason, you wish to return one of our products, it must be in original condition and unused. An RMA must be issued within 30 days from order fulfillment. Call, fax or email a request for a RMA number before returning the product. Shipping charges for all returns must be prepaid. Products returned are subject to a 20% restocking fee. Custom ordered products are non-cancellable and non-returnable. Shipping charges are not refundable. We do not accept goods that are returned incomplete or in used condition.

Pack the return securely using original packing material and box and write the RMA # on the outside of the package. Include the following information on a separate sheet of paper: Your name, shipping address, and daytime phone number, description of the product you are returning and reason for return. Include a copy of the packing slip or an email confirmation.

Using UPS, Fed Ex, or Insured US Postal Service, ship freight prepaid to: Lovegreen, Attn: Returns & Exchanges, 2280 Sibley Court, Eagan, MN 55122.

## Warranty

All Lovegreen products are warranted to be free from defects in material and workmanship for a period of 12 months from the date of shipment. Parts or components not manufactured by Lovegreen shall be subject only to the warranty of the parts manufacturer.

Products re-sold by Lovegreen shall be subject only to the warranty provided by and enforceable against the manufacturer of said products. Lovegreen disclaims all other warranties expressed or implied.

The product in question must be returned to Lovegreen within the warranty period with shipping charges prepaid. This warranty does not apply to any product that is damaged, modified or used in any manner other than its intended purpose.



# Lovegreen Machine Safeguarding



Machine Guarding Products



Custom Guard Fabrication



Turnkey Installation Services



Electrical & Integration Services

The Full Service Machine Guarding Company!



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Order 24 hours a day

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Fax: 651-890-8370

Phone: 800-262-8284

Email: [sales@lovegreen.com](mailto:sales@lovegreen.com)