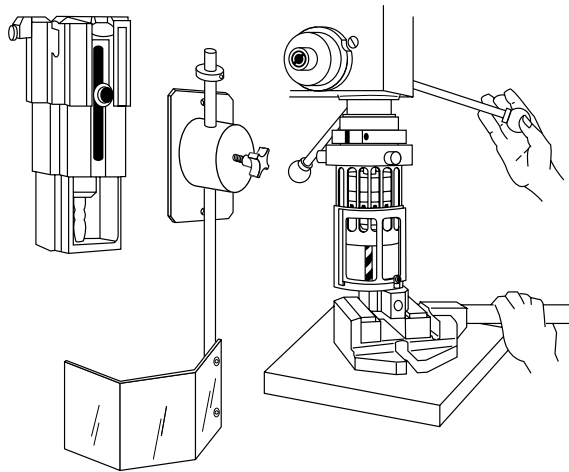


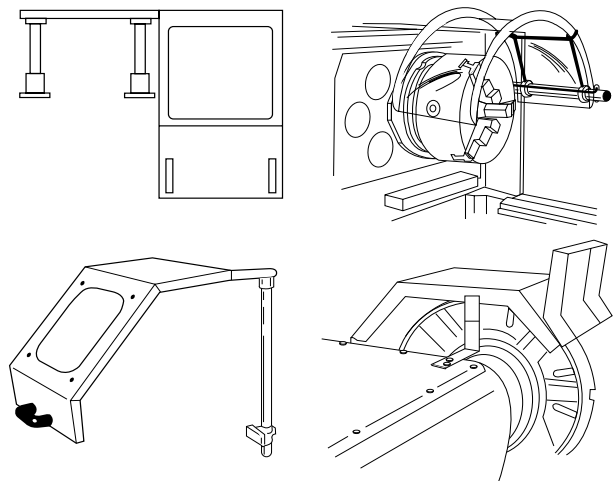


GENERAL INFORMATION FOR SHIELDS

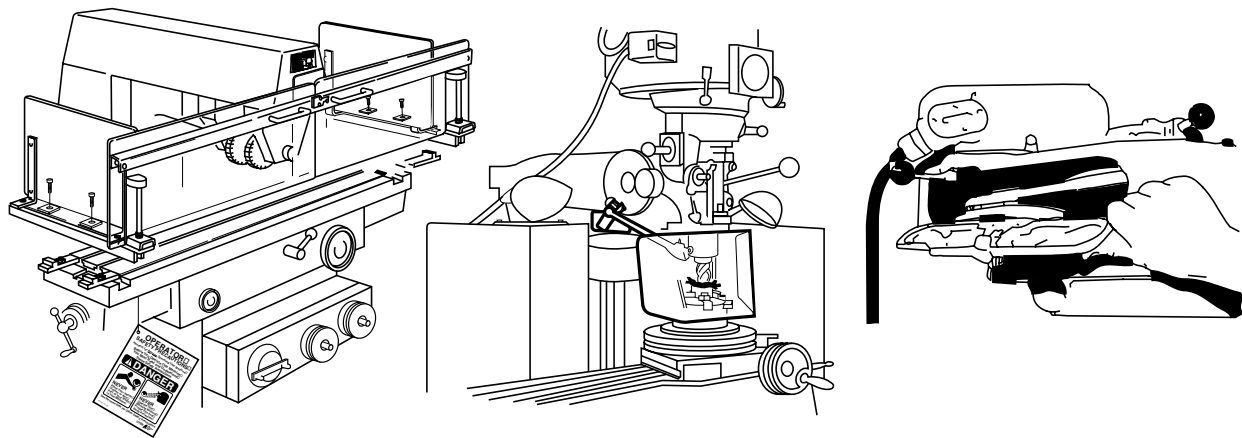
DRILL PRESS SHIELDS



LATHE CHUCK SHIELDS



MILLING MACHINE SHIELDS



IMPORTANT: PLEASE REVIEW THIS ENTIRE PUBLICATION BEFORE INSTALLING, ADJUSTING, OR POSITIONING SHIELDS, AND BEFORE OPERATING OR MAINTAINING TURNING MACHINES.

SECTION 1—IN GENERAL

Shields

Safety Precautions

DANGER

DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



This safety alert symbol identifies important safety messages in this manual. When you see this symbol, be alert to the possibility of personal injury, and carefully read the message that follows.

CAUTION

CAUTION used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

Efficient and safe machine operation depends on the development, implementation and enforcement of a safety program. This program requires, among other things, the proper selection of point-of-operation guards and safety devices for each particular job or operation and a thorough safety training program for all machine personnel. This program should include instruction on the proper operation of the machine, instruction on the point-of-operation guards and safety devices on the machine, and a regularly scheduled inspection and maintenance program.

Rules and procedures covering each aspect of your safety program should be developed and published both in an operator's safety manual, as well as in prominent places throughout the plant and on each machine. Some rules or instructions which must be conveyed to your personnel and incorporated in to your program include:

DANGER

Never place your hands or any part of your body in this machine.



Never operate this machine without proper eye, face and body protection.



Never operate this machine unless you are fully trained and instructed and unless you have read the instruction manual.



Never operate this machine if it is not working properly—stop operating it and advise your supervisor immediately.



Never use a foot switch to operate this machine unless a point-of-operation guard or device is provided and properly maintained.



Never operate this machine unless two-hand trip, two-hand control or presence- sensing device is installed at the proper safety distance. Consult your supervisor if you have any questions regarding the proper safety distance.



Never tamper with, rewire or bypass any control or component on this machine.

A company's safety program must involve everyone in the company, from top management to operators, since only as a group can any operational problems be identified and resolved. It is everyone's responsibility to implement and communicate the information and material contained in catalogs and instruction manuals to all persons involved in machine operation. If a language barrier or insufficient education would prevent a person from reading and understanding various literature available, it should be translated, read or interpreted to the person, with assurance that it is understood.



FOR MAINTENANCE AND INSPECTION, ALWAYS REFER TO THE OEM'S (ORIGINAL EQUIPMENT MANUFACTURER'S) MAINTENANCE MANUAL OR OWNER'S MANUAL. If you do not have an owner's manual, please contact the original equipment manufacturer.

Danger Sign(s) to be Mounted on the Machine



Accompanying this equipment is a 5" x 6" polyethylene danger sign, part No. KSC046, that **MUST BE PERMANENTLY MOUNTED IN A PROMINENT POSITION** on the machine on which this equipment is installed. This sign must be in a **LOCATION THAT IS EASILY VISIBLE** to the operator, setup person or other personnel work on or around the machine. **ALWAYS** mount this sign with bolts or rivets when installing the enclosed equipment.

If any danger sign becomes destroyed or unreadable, the sign must be replaced immediately. Contact the factory for replacement danger sign(s).



Never operate this machine unless the danger sign(s) is in place.



Front Side

SUGGESTED PROCEDURE FOR MOUNTING THIS SIGN

THE PURPOSE OF THIS SIGN IS TO ADEQUATELY WARN ALL PERSONNEL OF THE DANGER OF BODILY INJURY OR DEATH.

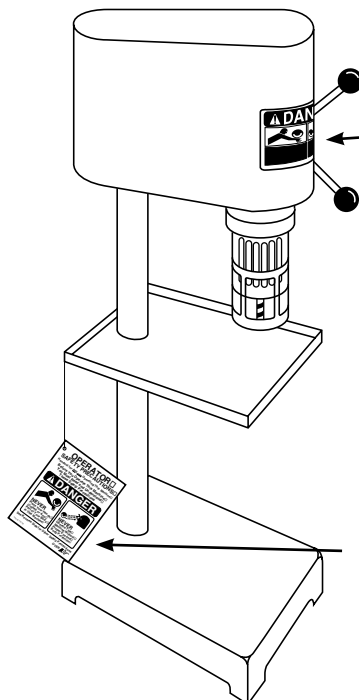
To accomplish this purpose, **ALWAYS** mount this sign in the following manner:

- (1) Clearly visible to the operator and other personnel
- (2) At or near eye level
- (3) PERMANENTLY fastened with bolts or rivets

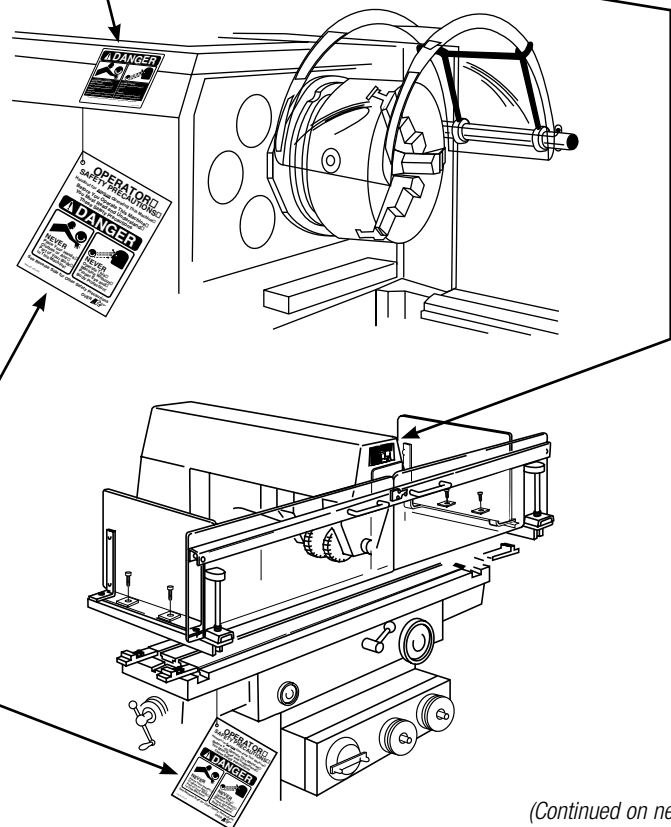
NEVER OPERATE MACHINE WITHOUT THIS DANGER SIGN VISIBLE TO ALL PERSONNEL.

Reverse Side

Part No. KSC046 Danger Sign—Standard
Part No. KSC046S—Spanish
Part No. KSC046F—French



See page 4 for details on this precautions sign.



(Continued on next page.)

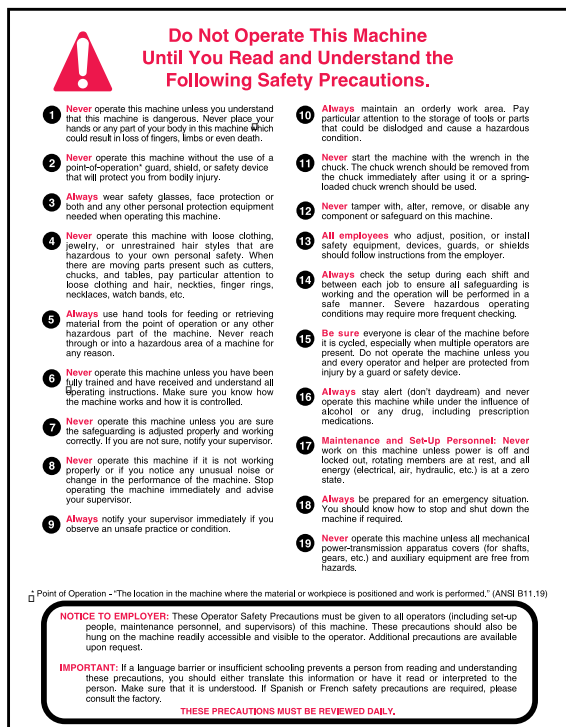
SECTION 2—DANGER SIGNS

Shields

Operator Safety Precautions Sign



Front



Back



Accompanying this equipment is an 8½" x 11" operator safety precautions sign, part No. KSC048, for anyone operating the machine where this equipment will be installed.



This sign should be permanently mounted to the machine, readily accessible and visible to the operator. Attach the sign to the machine with a nylon tie through the hole provided. Additional copies of these precautions are available. Please call, write, fax, e-mail, or use the order form found on a later page in this manual.



When a language barrier or insufficient education prevents a person from reading or understanding the contents of this sign, you should either translate this information or have it read or interpreted to the person. Make sure the person understands the information. To order this sign in Spanish, use Part No. KSC048S; in French, use Part No. KSC048F.



These precautions must be reviewed daily.

OSHA and ANSI Standards

Since the enclosed equipment can NEVER overcome a mechanical deficiency, defect or malfunction in the machine itself, OSHA (Occupational Safety and Health Administration) has established certain regulations on employers (users) to ensure the machines used in their plants, factories or facilities are thoroughly inspected and in first-class operating condition before any of the enclosed equipment is installed.

OSHA, 29 CFR (Code of Federal Regulations) that an employer (user) must comply with include:

SECTION *1910.212 GENERAL REQUIREMENTS FOR ALL MACHINES

(a) *Machine guarding - (1) Types of guarding.* One or more methods of machine guarding shall be provided to protect the operator and other employees in the machine area from hazards such as those created by point of operation, ingoing nip points, rotating parts, flying chips and sparks. Examples of guarding methods are - barrier guards, two-hand tripping devices, electronic safety devices, etc.

(2) *General requirements for machine guards.* Guards shall be affixed to the machine where possible and secured elsewhere if for any reason attachment to the machine is not possible. The guard shall be such that it does not offer an accident hazard in itself.

(3) *Point of operation guarding.* (i) Point of operation is the area on a machine where work is actually performed upon the material being processed.

(ii) The point of operation of machines whose operation exposes an employee to injury, shall be guarded. The guarding device shall be in conformity with any appropriate standards therefor; or, in the absence of applicable specific standards, shall be so designed and constructed as to prevent the operator from having any part of his body in the danger zone during the operating cycle.

(iii) Special hand tools for placing and removing material shall be such as to permit easy handling of material without the operator placing a hand in the danger zone. Such tools shall not be in lieu of other guarding required by this section, but can only be used to supplement protection provided.

(iv) The following are some of the machines which usually require point of operation guarding:

(a) Guillotine cutters

(b) Shears

(c) Alligator shears

(d) Power presses

(e) Milling machines

(f) Power saws

(g) Jointers

(h) Portable power tools

(i) Forming rolls and calenders

(4) *Barrels, containers and drums.* Revolving drums, barrels and containers shall be guarded by an enclosure which is interlocked with the drive mechanism, so that the barrel, drum or container cannot revolve unless the guard enclosure is in place.

(5) *Exposure of blades.* 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.

(b) *Anchoring fixed machinery.* Machines designed for a fixed location shall be securely anchored to prevent walking or moving.

SECTION *1910.219 (b)(1) MECHANICAL POWER-TRANSMISSION APPARATUS

(b) ***Prime-mover guards***—(1) ***Flywheels.*** 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 this subparagraph:

(i) With an enclosure of sheet, perforated, or expanded metal, or woven wire;

(ii) With guard rails placed not less than fifteen (15) inches nor more than twenty (20) inches from rim. When flywheel extends into pit or is within 12 inches of floor, a standard toeboard shall also be provided;

(iii) When the upper rim of flywheel protrudes through a working floor, it shall be entirely enclosed or surrounded by a guardrail and toeboard.

(iv) For flywheels with smooth rims five (5) feet or less in diameter, where the preceding methods cannot be applied, the following may be used: a

disk attached to the flywheel in such manner as to cover the spokes of the wheel on the exposed side and present a smooth surface and edge, at the same time providing means for periodic inspection. An open space, not exceeding four (4) inches in width, may be left between the outside edge of the disk and the rim of the wheel if desired, to facilitate turning the wheel over. Where a disk is used, the keys or other dangerous projections not covered by disk shall be cut off or covered. This subdivision does not apply to flywheels with solid web centers.

(v) Adjustable guard to be used for starting engine or for running adjustment may be provided at the flywheel of gas or oil engines. A slot opening for jack bar will be permitted.

(vi) Wherever flywheels are above working areas, guards shall be installed having sufficient strength to hold the weight of the flywheel in the event of a shaft or wheel mounting failure.

*See OSHA, 29 Code of Federal Regulations, Subpart O, for complete sections.

(Continued on next page.)

SECTION 3—SAFETY REFERENCES

Shields

Safety Sources

This manual does not cover all aspects of a safety program. There are many publications on the subject of safety. Some publications and sources that are useful in organizing and implementing a safety program for metal turning machines are as follows:

ANSI Standards

B11.6 *Manual Turning Machines* (Lathes)

B11.8 *Drilling, Milling, and Boring Machines*

B11.9 *Grinding Machines*

01.1 *Woodworking Machinery*

These standards can be purchased by contacting:

ANSI
American National Standards Institute, Inc.
25 West 43rd Street, 4th Floor
New York, New York 10036
Phone: 212-642-4900
Fax: 212-302-1286
www.ansi.org

OR

AMT
The Association for Manufacturing Technology
7901 Westpark Drive
McLean, VA 22102-4206
Phone: 703-893-2900
Fax: 703-893-1151
www.amtonline.org

OSHA's Publications

General Industry Safety and Health Regulations Part 1910,
CFR, Subpart O

Concepts and Techniques of Machine Safeguarding, OSHA 3067

These publications can be purchased by contacting:

US Government Printing Office
P.O. Box 371954
Pittsburgh, PA 15250-7954
Phone: 202-512-1800
<http://bookstore.gpo.gov>

Other Safety Sources

National Institute of Occupational Safety and Health (NIOSH)
4676 Columbia Parkway
Cincinnati, OH 45226
Toll-Free: 1-800-35-NIOSH (1-800-356-4674)
Phone: 513-533-8238
www.cdc.gov/niosh

For additional safety information and assistance in devising, implementing, or revising your safety program, please contact the machine manufacturer, your state and local safety councils, insurance carriers, national trade associations, and your state's occupational safety and health administration.

(Continued on next page.)

Rockford Systems, LLC
Call: 1-800-922-7533

Warranty

9. Limited Warranties.

9.1. (i) Subject to Section 8.1(ii) below, Rockford Systems makes to Customer the following sole and exclusive warranties with respect to Goods:

(a) with respect to Goods that are manufactured based on Customer specifications, at the time of shipment by Rockford Systems, the Goods sold under the Agreement that are manufactured by Rockford Systems pursuant to such specifications conform to such specifications set forth in the applicable Order Documentation; and

(b) at the time of shipment by Rockford Systems, the Goods sold under the Agreement that are manufactured by Rockford Systems are free from defects in material and workmanship.

(c) Rockford Systems's warranty is for a period of 1 year, and begins from date of shipment from Rockford Systems to the original purchaser.

This warranty does not include accessories, parts or equipment sold hereunder that are manufactured by someone other than Rockford Systems.

(ii) Every claim by Customer against Rockford Systems for breach of warranty with respect to the Goods shall be deemed waived by Customer unless written notice thereof is received by Rockford Systems within fifteen (15) days after discovery.

9.2. If Rockford Systems breaches either of the warranties set forth in Section 8.1(i) above, and written notice thereof is received by Rockford Systems from Customer within the applicable time period specified in Section 8.1(ii) above, Customer's sole and exclusive remedy and Rockford Systems's only obligation shall be, as Rockford Systems in its sole and exclusive judgment shall determine, the replacement of the nonconforming Goods, or an adjustment to the purchase price for the nonconforming Goods or the repair of the nonconforming Goods. All transportation charges related to replacement or repair of Goods shipped to Rockford Systems's plant or facility (or other place at Rockford Systems's direction) shall be prepaid by Customer. Rockford Systems shall be responsible for reasonable transportation charges back to Customer for Goods that have been replaced or repaired by Rockford Systems. Any replacement Goods or repaired Goods shall be subject to these Terms and Conditions.

9.3. THE EXPRESS WARRANTIES SET FORTH HEREIN ARE THE ONLY WARRANTIES APPLICABLE TO THE SALE OF GOODS BY ROCKFORD SYSTEMS TO CUSTOMER PURSUANT TO THE AGREEMENT, AND THEY EXCLUDE ALL OTHER EXPRESS, ORAL OR WRITTEN WARRANTIES, AS WELL AS ANY WARRANTIES IMPLIED BY LAW WITH RESPECT TO THE GOODS, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PURPOSE, NOTWITHSTANDING ANY DISCLOSURE TO ROCKFORD SYSTEMS OF THE INTENDED USE OF THE GOODS.

9.4. Rockford Systems's warranties under Section 8.1(i) are void if repairs or modifications of the Goods are made by anyone other than Rockford Systems. Without limitation of the foregoing, Rockford Systems assumes no responsibility for and shall have no obligations to Customer because defects in any materials furnished by, or any faulty workmanship provided by, any party other than Rockford Systems.

9.5. Rockford Systems reserves the right to improve its products through changes in design or material without being obligated to incorporate such changes into products of prior manufacture. Customer cannot rely on any such changes as proof of insufficiency or inadequacy of prior designs of the Goods or material contained in the Goods.

9.6. If Customer grants to an end user of the Goods (or any other customer of Customer) any warranty that is greater in scope or time than the warranty and claims period stated herein, Rockford Systems shall not be liable beyond the scope of the limited warranty, the claim period, the damages and the remedies provided for under this Section.

9.7. Solely to the extent transferable, Rockford Systems assigns and transfers to Customer the original manufacturer's warranty on Goods sold hereunder that are not manufactured by Rockford Systems.