ISB Safety is our passion, YOUR safety is our misson.

ISB Adjustable Die Safety Blocks

Safety Blocks with adjustable screw are quick and easily adaptable

Safety Blocks provide safety during set up and maintenance for power presses. This is done by mechanically and electrically preventing inadvertent die closure.

Why you need Safety Blocks?

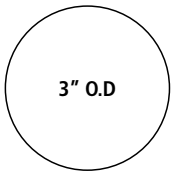
According to OSHA 29 CFR 1910.217, "The employer shall provide and enforce the use of safety blocks for use whenever dies are being adjusted or repaired in the press." They also satisfy the lock-out/tag-out requirements for isolating mechanical energy.

Die safety blocks are placed between the die punch and holder with the machine stroke up. They are rated to support a static load. The static load represents the combined weight of the press ram, ram components (ram-adjust assembly and connection rod[s] or pitman arm[s]), and the upper die.

In some applications, as many as four safety blocks may be required. This is determined by the size of the press bed and the weight the blocks must support. On larger presses, the total slide weight must then be distributed among the quantity of safety blocks required.

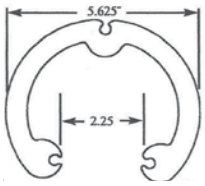
The ram is usually adjustable; therefore, the adjustable screw device is offered to provide a proper fit. If the die takes up most of the space on the die set, it may be difficult to find a place to insert the block. The horse shoe shaped die block make it easier to tuck the block around the corner of the die set. To avoid accidentally stroking the press or leaving the safety block in the die after use, an electrical power cut-off interlock system must be used.

Note: Electrical interlocking of die safety blocks to the machine's motor and control circuits is required by ANSI B11.19.



Standard Round Style

The new 3" round Safety Blocks are for smaller presses, with a maximum static load of 35 tons and having a wide span of adjustable heights. Blocks are made of high strength light weight extruded aluminum.



Standard Horseshoe Style

The standard horseshoe shaped die blocks can be used in large presses, with a maximum static load of 125 tons. Proper selection of style and size are determined by the press' static load and required range of open height.

Standard Interlock

Interlock plug and receptable with chain provides a mechanical means of insuring the guards, safety blocks or other devices are in place before a machine can operate.
(Standard on all safety blocks.)

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How to size your safety blocks

All safety blocks are rated to withstand a direct static load, which is expressed as the capability of the block to support the combined weight of both the upper ram of the press and the upper die halves in an open position. Selection of the proper style and size safety block for the specific press application must be based on these considerations: (a) the static load requirement, and (b) the required safety block maximum length.

(1) To determine the length of safety block: With the die fully open (or top of stroke) measure the space between the upper and lower die or the space between the slide face and bolster at the point where the block is to be inserted. See drawing to the right and the chart below to determine the proper size that will fit.

(2) Estimating the static load:

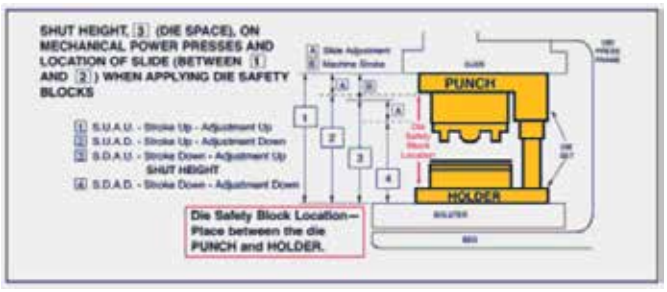
The "rule of thumb" method for quickly estimating the static load requirement for a particular stamping press is to allow one ton of static load for each cubic foot displaced by the press bed area X the shut height of the press.

This cubic displacement factor (1 ton per 1 cubic foot) allows for the approximate weight of the upper ram, slide assembly including adjustment device pitman arms and the approximate weight of the upper half of the die set. It also allows for a two to one safety factor.

When more than one safety block (usually on straight side presses) is used, divide the total weight by the number of safety blocks. The resulting figure is the amount of static load the safety block (s) will have to support. Please refer to the size block (xx) that should be used for load vs. length of block.

For Example:

(Press Bed Area) (Shut Height)
48" x 96"x 24" = 64 cu. ft. or 64 Tons
1728 cu. in/cu. ft. Displaced static load



TOTAL STATIC LOAD _____ LOAD CAPACITY BLOCK_____= # OF SAFETY BLOCKS _____

Available Sizes

3" Round Adj. Safety Blocks	ISB Model	Description	ISB Part Number
Small	SB-035-09	3" Round Adj. Safety Block 9" Open, - 3" Adj. 6" Close, Electrical Interlocks.	80005001
Medium	SB-035-12	3" Round Adj. Safety Block 12" Open - 3" Adj. 9" Close, Electrical Interlocks.	80005002
Large	SB-033-16	3" Round Adj. Safety Block 16" Open - 6" Adj. 10" Close, Electrical Interlocks.	80005003
Extra Large	SB-033-20	3" Round Adj. Safety Block 20" Open - 6" Adj. 14" Close, Electrical Interlocks.	80005004
Custom Size	SB-035-XX	3" Round Adj. Safety Block, Specify Open & Close Height, Electrical Interlocks.	80005090
5.625 Horseshoe Adj. Safety Blocks	**ISB Model**	**Description**	**ISB Part Number**
Small	SB-125-12	5.6"Horseshoe Adj. Safety Block 12" Open - 3" Adj. 9" Close, Electrical Interlocks.	80005101
Medium	SB-125-22	5.6" Horseshoe Adj. Safety Block 22" Open - 9" Adj. 13" Close, Electrical Interlocks.	80005102
Large	SB-125-27	5.6" Horseshoe Adj. Safety Block 27" Open - 9" Adj. 18" Close, Electrical Interlocks.	80005103
Extra Large	SB-125-36	5.6" Horseshoe Adj. Safety Block 36" Open - 15" Adj. 21" Close, Electrical Interlocks.	80005104
Custom Size	SB-125-XX	5.6" Horseshoe Adj. Safety Block, Specify Open & Close Height, Electrical Interlocks.	80005190