

# RAM-MASTER SAFETY BLOCKS



**RAM-MASTER** Safety Blocks are manufactured in Canada from high-strength 6063-T5 aluminum, and are rated according to their length and whether fixed or adjustable. The adjustable screws are made of steel or aluminum. Handles and electrical interlocks are provided as standard but blocks can be supplied without these features.

The CSA standard Z142-10 requires that Safety Blocks be used whenever dies are being repaired in a press or when work of any kind is being performed between the slide and bolster.

Safety Blocks are placed between the die punch and holder and must be rated to support the combined static load of the slide and associated components.

Depending upon the weight to be supported as many as four Safety Blocks may be required. Slides are usually adjustable and consequently Safety Blocks can be supplied with an adjustable screw providing up to 12 inches of adjustment.



### Steel Capacity

No screw, Non adjustable, to 95 Ton.  
With Screw, Adjustable, to 53 Ton.

### Aluminum Screw Capacity

Adjustable, to **50** Ton.

**RAM-MASTER** MANUFACTURED IN CANADA



## SAFETY BLOCKS ACCESSORIES

### BLOCK HOLDERS

Holders are designed to store all sizes of Safety Blocks. Made of heavy gauge steel and painted, they attach to the press with two 1/4" screws.



Order using part # **SBH664**

*Flanges for Stacking  
Adjustable to Non -  
Adjustable Blocks*



## MINI DIE SAFETY BLOCKS



MINI Die Safety Blocks are intended for use in very small presses and complement the RAM MASTER series. MINI blocks will fit in small spaces where larger blocks would not fit. (Blocks are 2.5" in diameter).

Add **M** to end of part number for Plug and **F** for Socket. (MF for both)

For example: MSB610MF

NOTE: All blocks are shipped with necessary hardware to attach your own interlocks.



### HOW TO ORDER

Select the required model from the chart below adding M or F (or both) if interlocks are required.

Model Number	Capacity
MSB406	15,000 Lbs.
MSB508	15,000 Lbs.
MSB610	15,000 Lbs.
MSB712	15,000 Lbs.
MSB814	15,000 Lbs.
MSB916	15,000 Lbs.
MSB1018	15,000 Lbs.
MSB1120	15,000 Lbs.

Model Number	Minimum Height	Maximum Height	Availability
MSB406	4	6	Stock item
MSB508	5	8	Stock item
MSB610	6	10	Stock item
MSB712	7	12	Stock item
MSB814	8	14	Stock item
MSB916	9	16	Stock item
MSB1018	10	18	Custom item
MSB1120	11	20	Custom item

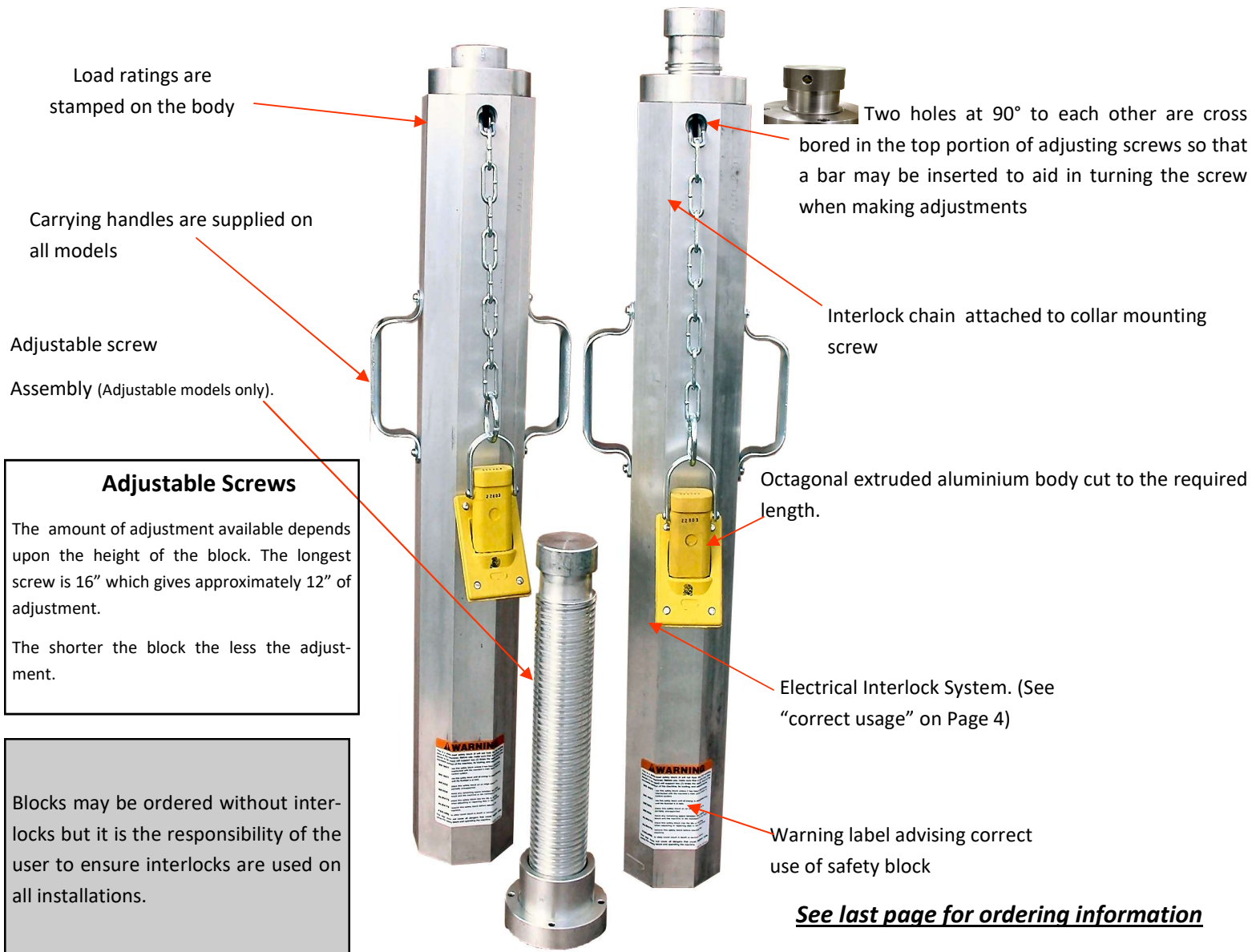
# RAM-MASTER DIE SAFETY BLOCKS

## GENERAL SPECIFICATIONS

Safety blocks can be supplied in fixed or adjustable lengths. All models, fixed and adjustable, use an Octagonal body section and are available in lengths up to 60". Load ratings are on the back pages of this flyer.

### FEATURES

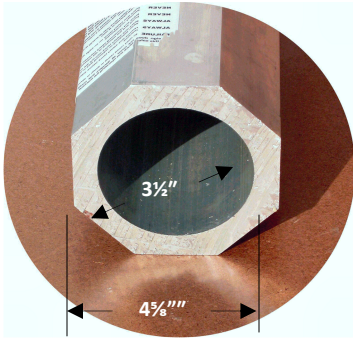
All **RAM-MASTER** Safety Blocks incorporate the following features.



# RAM-MASTER DIE SAFETY BLOCKS ORDERING INFORMATION

## NON ADJUSTABLE OCTAGONAL SAFETY BLOCKS

Non adjustable blocks are available in fixed lengths up to 60". The table below shows the maximum static load per block in lbs. and tons.



Weight 0.833 lbs.in

Block Length. Inches	Capacity. Lbs. (Tons)
1 - 24	190,000 (95)
24½ - 30	173,000 (86)
30½ - 36	169,500 (84)
36½ - 42	164,000 (82)
42½ - 48	158,000 (79)
48½ - 54	155,500 (77)
54½ - 60	155,000 (77)

### HOW TO ORDER

Simply state the length you require plus the number of handles (one or two) and if Interlocks are required.

## ADJUSTABLE OCTAGONAL SAFETY BLOCKS - Ratings Show Steel Screw plus Collar/Aluminum Screw plus Collar

When an adjustable screw is used the static load capabilities are as shown. Blocks with adjustable screws cannot hold as heavy a static load as octagonal safety blocks by themselves. The ratings shown have a safety factor of two.



Inches of Adjust-ment	Maximum Static Load. Lbs. (Tons)	
	STEEL	ALUMINUM
2	106,000 (53)	102,500 (51)
4	102,500 (51)	99,000 (49)
6	98,500 (49)	95,500 (47)
8	94,500 (47)	92,000 (46)
10	91,000 (45)	88,500 (44)
12	87,500 (43)	85,000 (42)

### HOW TO ORDER

We need to know the minimum height required and the amount of adjustment. [Please read the note below]

The maximum minimum height is 60" and the normal maximum amount of adjustment is 12". However blocks with greater amounts of adjustment can be made.

State with, or without, handles and if interlocks are required.

**NOTE.** All safety blocks, both fixed and adjustable, come with a hole and pin for the interlock chain plus one or two handles. Interlocks are extra and must be requested on your order.

**NOTE:** A block with zero adjustment has a minimum height of 5". For every inch of adjustment the minimum height increase by 1". For example, a block with 6" of adjustment will have a minimum height of at least 11". Once this requirement is met the minimum height can be anything up to 60".

### TECHNICAL ASSISTANCE

If you need help determining what size of block you need please contact us via phone at **519-620-8925** or email at **sales@vit-ltd.com** Monday to Friday 8:00AM—5PM.

### Correct Usage

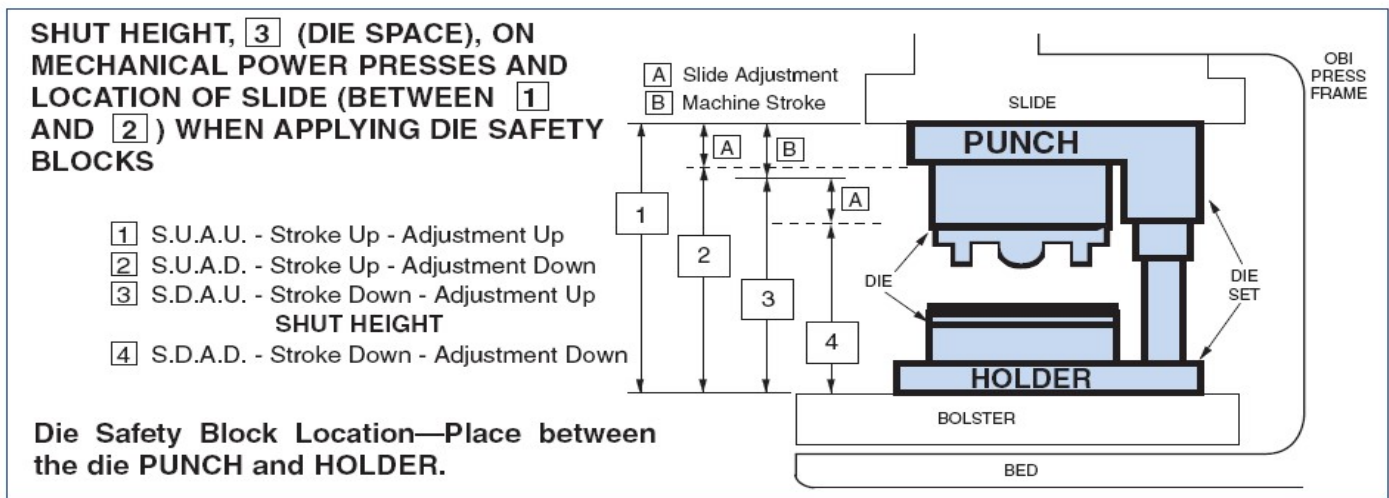
Safety Blocks must be used when anyone is working in and around the die area of a press. An electrical interlock must be attached to the Safety Block so that the press cannot be operated when the blocks are in place. When not being used the blocks must be stored in a location where the electrical interlock can be interfaced with the press controls ensuring the press can only be started when the block is in the stored position, i.e. not in the press.

# A GUIDE TO SIZING DIE SAFETY BLOCKS

Safety blocks are placed between the die punch and holder... see diagram below. They must be rated to support the combined weight of the press ram, all components attached to the ram and the upper die.

As many four safety blocks may be required in a large press and they should be situated so that the load is evenly distributed between them.

To account for differences in the distance between the punch and holder safety blocks are usually supplied to be adjustable although they don't have to be adjustable providing some provision is made to ensure there is no gap greater than 1/4" between the upper and lower parts of the die set.



If you know the weight of the press slide and everything attached to it select safety block that matches that number allowing for a safety factor of two. If this number is not known the weight to be supported can be calculated using the formula shown below.

Press Bed Area (sq in) x Shut Height (in)

= Cubic Feet Displaced

Cubic Inches/Cubic Feet (Constant) 1728 cu in/cu ft

**Example**

48" x 96" x 24"

110,592

= 64 Cubic Feet Displaced

1728

1728

64 cubic feet displacement x 2,000 lb/ cu ft = 128,000 lbs. static load to be supported.

To determine Block Length with the press at the top of its stroke with the stroke adjustment up (S.U.A.U. see diagram) measure the space between the upper and lower die set. This gives the maximum length. To determine the S.U.A.U. subtract the ram adjustment from the S.U.A.U. number and that will give you the minimum height. The difference between the two is the amount of adjustment.