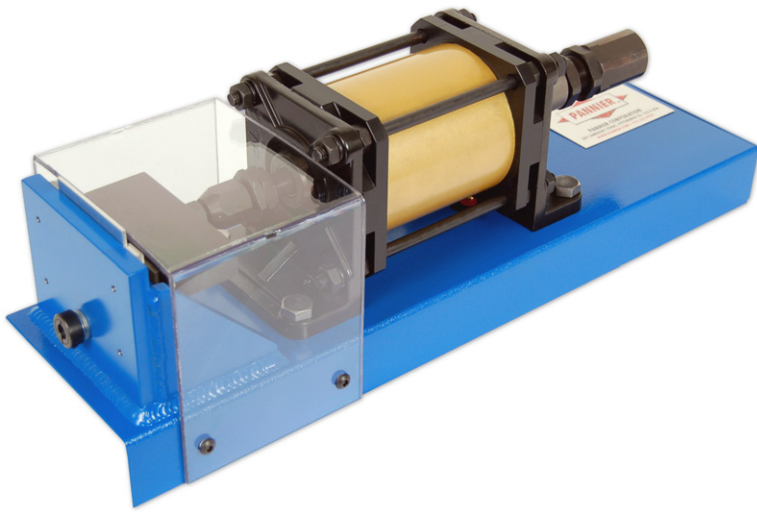


# MARK-FIRST IMPACT PRESSES



Mark part numbers, date codes, and logos on materials such as metal, plastic, wood, and even paperboard.

## Simple, versatile presses for repetitive marking tasks.

Pannier's Mark-First® impact presses satisfy a wide variety of stamping and embossing needs. The line includes manual and pneumatic units for benchtop and inline marking applications. All are fully adjustable for safe, controlled marking at various marking depths on a variety of materials. Equipped with type or numbering heads, these units make product identification fast, efficient, and consistent.

All of the presses are spring actuated for safety. The marking force occurs only after the die comes into contact with the part to be marked. The impact force is obtained when the spring is released and drives a hammer against an anvil to produce a clear, controlled mark every time.

In addition to marking, the presses can be used for punching, bending, riveting, and press-fitting parts.

INDENTING

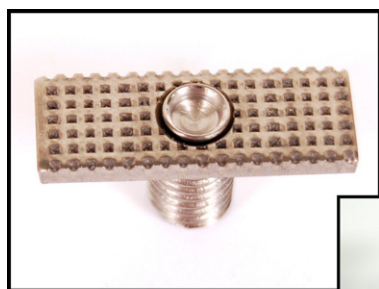
# STAMPING FORCE CALCULATOR

Use this chart to calculate the force needed to mark with these typical character sizes. Calculate force by multiplying the force per character by the total number of characters to be stamped. Character sizes can be combined if each is calculated separately, then added together.

Character Size	Annealed Brass	Annealed Aluminum	Low Carbon Steel	Medium Carbon Steel	Cast Iron Alloy	Stainless Steel (300 Series)
	lbs of force required per character					
1/16" (1.6mm)	200	200	340	400	400	445
3/32" (2.4mm)	400	400	680	800	800	890
1/8" (3.2mm)	600	600	1,020	1,200	1,200	1,300
5/32" (4.0mm)	1,000	1,000	1,700	2,000	2,000	2,200
3/16" (4.8mm)	1,400	1,400	2,400	2,800	2,800	3,100

## MANUAL BENCHTOP PRESSES

The Mark-First® manual presses are a simple, economical solution for low volume benchtop marking applications. The presses are actuated with a pull of the handle.



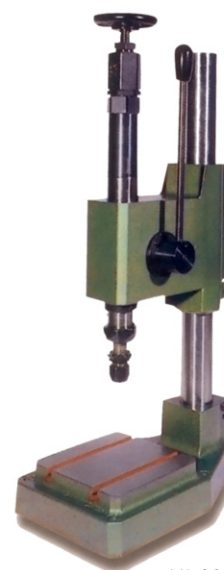
Use one press for marking (right) and for press-fitting parts (above).



MB-15



MB-20



MB-32

### KEY FEATURES

- Pre-clamping action to prevent deformation of the material being marked
- Maximum sensitivity and accuracy with exact pressure settings
- Consistent depth of marks, even for components with large variations in tolerance
- Easy accessibility for marking different size parts
- Wide range of accessories including type and type holders, numbering heads, and custom engraved dies

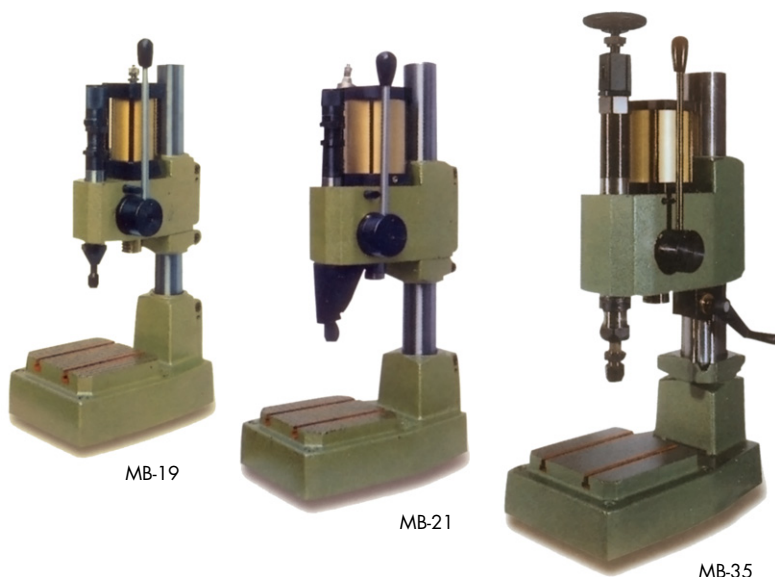
### SPECIFICATIONS

FEATURE	Model MB-15	Model MB-20	Model MB-32
Marking Force Range	0 to 1,000 lbs	0 to 6,600 lbs (3.3 tons)	0 to 14,200 lbs (7.1 tons)
Net Weight	21 lbs (9.5 kg)	69 lbs (31.5 kg)	218 lbs (99 kg)
Overall Height	18" (455mm)	30" (760mm)	35.8" (910mm)
Base Size	5.2" x 8.3" (132mm x 210mm)	7.9" x 12.6" (200mm x 320mm)	11" x 18.1" (280mm x 460mm)
Base Top (Work Area)	3.9" x 3.9" (100mm x 100mm)	6.3" x 6.3" (160mm x 160mm)	8.7" x 8.7" (220mm x 220mm)
T-slot Width & Centers	.24" (6mm) / 2" (50mm)	.39" (10mm) / 3.1 (80mm)	.47 (12mm) / 4.7" (120mm)
Working Stroke	4.4" (112mm)	6.3" (160mm)	9.1" (230mm)
Maximum Throat Height	10" (255mm)	16.9 (430mm)	17.7" (450mm)
Shank Diameter	6mm	10mm	16mm

## PNEUMATIC BENCHTOP PRESSES

Mark-First® pneumatic presses are suitable for high volume marking applications when operator safety and comfort are important concerns. These presses can be actuated with dual palm buttons, a customer-supplied foot pedal, or a pull of the handle when air is not available. For ultimate operator safety, the Dual Palm Security Buttons ensure that the operator's hands are clear of the marking area.

In addition to the features available on the manual presses, the pneumatic units offer a double-acting cylinder for increased operating speeds.



### SPECIFICATIONS

FEATURE	Model MB-19	Model MB-21	Model MB-35
Marking Force Range	0 to 1,500 lbs (.75 tons)	0 to 7,500 lbs (3.75 tons)	0 to 17,000 lbs (8.5 tons)
Net Weight	35 lbs (16 kg)	150 lbs (68 kg)	352 lbs (160 kg)
Air Requirement	40 to 50 PSI	60 to 90 PSI	90 to 100 PSI
Overall Height	14.8" (375mm)	24.8" (630mm)	33.5" (850mm)
Base Size	5.5" x 8.9" (140mm x 225mm)	8.2" x 14.1" (208mm x 358mm)	11.6" x 20" (295mm x 510mm)
Base Top (Work Area)	4.3" x 4.3" (110mm x 110mm)	6.7" x 6.7" (170mm x 170mm)	9.4" x 9.4" (240mm x 240mm)
T-Slot Width & Centers	.24" (6mm) / 2" (50mm)	.39" (10mm) / 3.1" (80mm)	.47" (12mm) / 4.7" (120mm)
Working Stroke	4.4" (112mm)	7.1" (180mm)	10.2" (260mm)
Maximum Throat Height	6.5" (165mm)	10" (255mm)	11.4" (290mm)
Shank Diameter	8mm	10mm	16mm

## PNEUMATIC FIXED MOUNT PRESSES

The VP presses are ideal for inline marking applications. Presses can be mounted in any direction and are actuated either by a solenoid valve triggered by a PLC, or by dual palm buttons. The simple operation and compact design make them ideal for mounting into nearly any production cell for fast, easy product marking. Achieve consistent depth of marks even on parts with variations in size; the mark can be made at any point within the working stroke. The double-acting cylinders ensure fast operation on high-speed production lines.



### SPECIFICATIONS

FEATURE	Model MB-19VP	Model MB-21VP	Model MB-35VP
Marking Force Range	0 to 1,500 lbs (.75 tons)	0 to 7,500 lbs (3.75 tons)	0 to 17,000 lbs (8.5 tons)
Net Weight	15 lbs (6.8 kg)	35 lbs (16 kg)	115 lbs (51.5 kg)
Air Requirement	70 to 75 PSI	70 to 75 PSI	70 to 75 PSI
Overall Length*	9.1" (230mm)	16" (405mm)	26.8" (680mm)
Base Size	2.5" x 7" (65mm x 176mm)	4.5" x 10.4" (115mm x 263mm)	7.1" x 16.1" (180mm x 408mm)
Working Stroke	1.2" (30mm)	2.76" (70mm)	4.15" (105mm)
Shank Diameter	8mm	10mm	16mm

\* without type holder

# ACCESSORIES



Each type holder is held in the press by use of an included shank.

Type is changed by loosening the set screw with an Allen wrench.

## TYPE HOLDERS & TYPE

Type holders are an easy way to stamp multiple characters at one time. Single line, multiple line, and custom holders are available to suit your application. Designed with drilled and tapped holes especially for use with Mark-First® presses, individual pieces of type are held in place with a simple set screw.

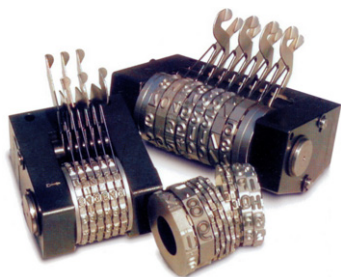
### Standard Type Holders

ITEM NO.	MORTICE SIZE T/B x L/R	CHARACTER SIZE & NUMBER OF PIECES PER HOLDER				
		1/16"	3/32"	1/8"	3/16"	1/4"
C7441-1740-M101	1/4" x .787"	12	6	6		
C7441-1740-M102	1/4" x 1.670"	26	13	13		
C7441-1740-M103	1/4" x 2.54"	40	20	20		
C7441-1760-M102	3/8" x 1.57"				6	6
C7441-1760-M103	3/8" x 2.35"				9	9

Type is available as individual pieces or multi-character logotypes, or can be custom made to your requirements. For applications where the mark does not change, type can be made to fit the press without the use of a type holder. Call us with your requirements.

## NUMBERING HEADS

Numbering heads are ideal for frequently changing numbers or sequentially incrementing serial numbers. Standard character sizes are 1/16", 3/32", 1/8", and 3/16". Semi-condensed and condensed character widths are also available for marking in small areas. Standard character sets on each wheel: 0-9 A-M N-Z



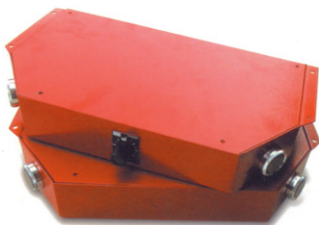
### Model MB14 Manual Numbering Heads

Manually adjustable numbering heads are used when the text to be marked has to be changed frequently. They do away with the need to remove a typeholder and change individual pieces of type. Heads can be supplied with anywhere from two to 20 wheels.



### Model MB2 Automatic Numbering Heads

Automatic numbering heads mark sequential numbers and can be supplied to index after each stroke or after each 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, or 5<sup>th</sup> stroke. Heads can be made with both automatic and manual wheels, wheels with special symbols, or wheels with different character sizes.



### SECURITY BUTTONS

Located on either side of a pneumatic press, the Dual Palm Security Buttons must be depressed at the same time to actuate the marking cycle. Keeps operators' hands clear for safe operation.



### AIR FRL

To clean and lubricate shop air, a filter/regulator/lubricator is recommended for use with all pneumatic presses.

Also Available: Tables • Carts • Part Holding Fixtures • System Engineering and Custom Design

## PANNIER CORPORATION

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