



P.O. DRAWER 998/HWY 243 INDUSTRIAL PARK RUSSELLVILLE, AL 35653  
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## HEAVY DUTY HYDRAULIC C-FRAME PRESSES



**Series F5  
Flange Press**



**Series W5  
Web Press**

## PORTABLE PRESSES

# SERIES F5 HEAVY DUTY

## 8 Models • 30 Through 275 Capacity

- STANDARD COMPONENTS FURNISHED WITH PRESS
  - Standard Coupling Nut
  - Coupling Nut Wrench
  - Replaceable Die Pocket
  - Handle Bar w/Grips
  - Manual
  - Punch & Die
- OPTIONAL EQUIPMENT
  - Hydraulic Unit (460 Volt Standard)
  - Hose & Control Cable
    - (2) Hoses 20' Long
    - Control Switches w/ Boxes
    - Control Cable (From Control Switches To The Hydraulic Control Valves)
  - Tooling
  - Split Coupling Nuts



*Model F570X6 Shown*

Available in 8 Models, these versatile presses are primarily used for piercing the flange sections of beams, angle, channel and bar. They employ standard tooling and are designed for high fabrication production. Fast cycle times and portability promotes reduced material handling and a phenomenal reduction in costly man hours. In addition to the piercing, these presses may be tooled for stamping, notching and riveting. Heavy duty construction allows for long maintenance-free production hours.

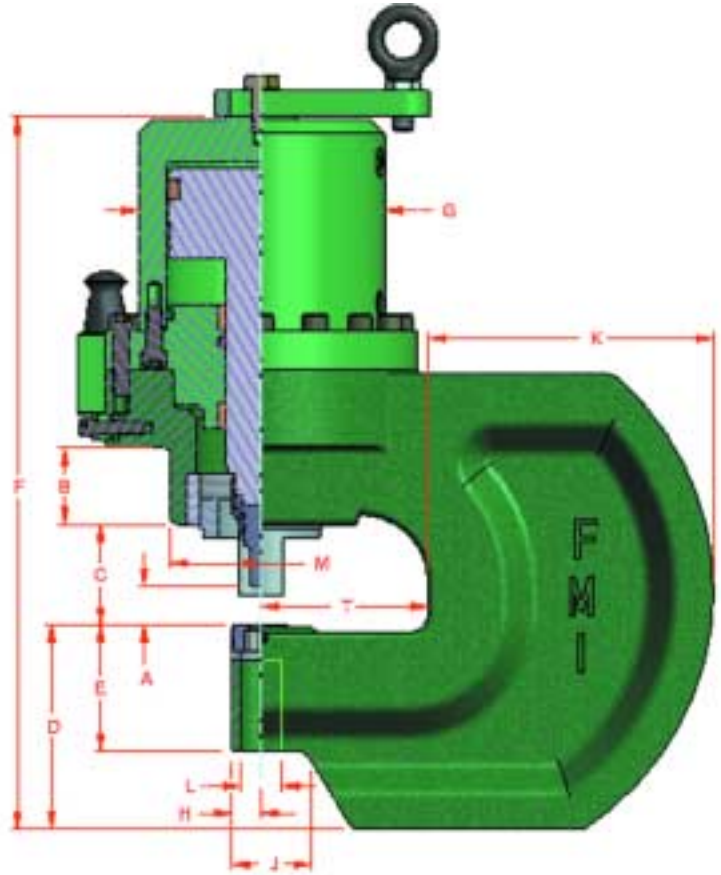
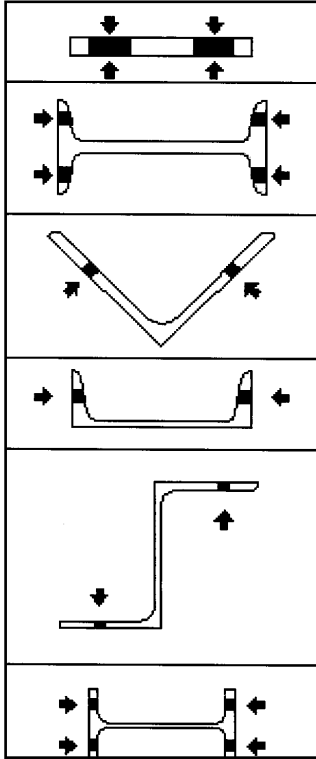
• SPECIFICATIONS    ■ Indicates stock presses    ■ Indicates made to order presses

PRESS MODEL	PRESS CAPACITY IN TONS	MAXIMUM HOLE DIAMETER	LENGTH OF STROKE	HYDRAULIC POWER UNIT	HOSE AND CONTROL CABLE	SUSP. SPRING	TOOLING SERIES
F530X3	30 TONS	13/16"	1"	FMI-500-5HP FMI-500-3HP	500-1/4-20 500-1/4-20	F103	PUNCH C-740 DIE C-720
F550X4 F570X6	50 TONS 70 TONS	1-1/2"	1-5/8"	FMI-500-5HP FMI-500-3HP FMI-500-10HP	500-1/4-20 500-1/4-20 500-3/8-20		PUNCH C-770 DIE C-740
F5100X6	100 TONS	1-1/2"	2"	FMI-500-10HP	500-3/8-20	F1035	PUNCH C-7501 DIE C-7502 WITH C-770 PUNCH ADAPTER ASS'Y
F5125X6	125 TONS	1-1/2"	2 1/8"	FMI-500-10HP OR FMI-512-15HP	500-3/8-20 OR 500-1/2-20	F2035	
F5175X6	175 TONS	2"		FMI-512-15XP OR FMI-532-20HP	500-1/2-20 OR 500-1/2-20		
F5175X12	175 TONS						
F5275X12	275 TONS						

# HYDRAULIC FLANGE PRESSES

## *Dimensions and Specifications*

### *Applications*



• SPECIFICATIONS    ■ Indicates stock presses    ■ Indicates made to order presses

PRESS MODEL NO.	F530X3	F550X4	F570X6	F5100X6	F5125X6	F5175X6	F5175X12	F5275X12
TONNAGE	30	50	70	100	125	175	175	275
THROAT DEPTH T	3-1/8	4-1/4	6-1/4	6-1/4	6-1/2	6-1/2	12-1/2	12-1/2
A	3/4	1-5/16	1-5/16	1-9/16	2	2	2	2
B	2-3/4	4-1/8	6-11/16	6	6	8	8	12
C	2	2-5/16	2-1/2	3-7/8	3-7/8	4-1/4	4-1/4	4-1/4
D	3-1/4	4-5/8	6-13/16	7-7/8	7-7/8	12	15	17-1/2
E	2-3/4	3-3/8	3-3/8	4-7/8	4-7/8	6-1/8	6-1/8	6-1/2
F	13	18-13/16	24-5/16	27-1/8	29-3/16	36	39	50
G	5-1/2	7-1/4	8	9-1/2	11	12-1/2	12-1/2	15
H	11/16	1-1/8	1-1/8	1-1/8	1-1/8	2	2	2-3/8
J	2	2-1/4	2-1/8	2-5/8	2-5/8	5	5-1/2	5-1/2
K	4-1/4	5	8-1/4	11	11	20	25	30
L	7/8	1-5/8	1-5/8	1-5/8	1-5/8	2-1/8	2-18	2-5/8
M	2-1/2	2-1/2	2-3/4	3-1/2	3-1/2	4-1/2	4-1/2	6
APPROX.WEIGHT	90#	175#	380#	430#	530#	2,100#	3,000#	3,900#

# SERIES W5 HEAVY DUTY

## 8 Models • 30 Through 275 Capacity

- STANDARD COMPONENTS FURNISHED WITH PRESS
  - Standard Coupling Nut
  - Coupling Nut Wrench
  - Replaceable Die Pocket
  - Handle Bar w/Grips
  - Manual
  - Punch & Die
  
- OPTIONAL EQUIPMENT
  - Hydraulic Unit (460 Volt Standard)
  - Hose & Control Cable
    - (2) Hoses 20' Long
    - Control Switches w/ Boxes
    - Control Cable (From Control Switches To The Hydraulic Control Valves)
  - Tooling
  - Split Coupling Nuts



Available in 8 models, these versatile presses are primarily used for piercing the web sections of wide flange beams and channels. Plate, angles and a wide variety of structurals may be pierced in a fraction of time required by burning or drilling. Franklin assures rugged construction and offers a wide variety of punches, dies, and accessories for the presses. Versatility of applications is the element of the web series presses.

*Model W5100X18 Shown*

• SPECIFICATIONS    ■ Indicates stock presses    ■ Indicates made to order presses

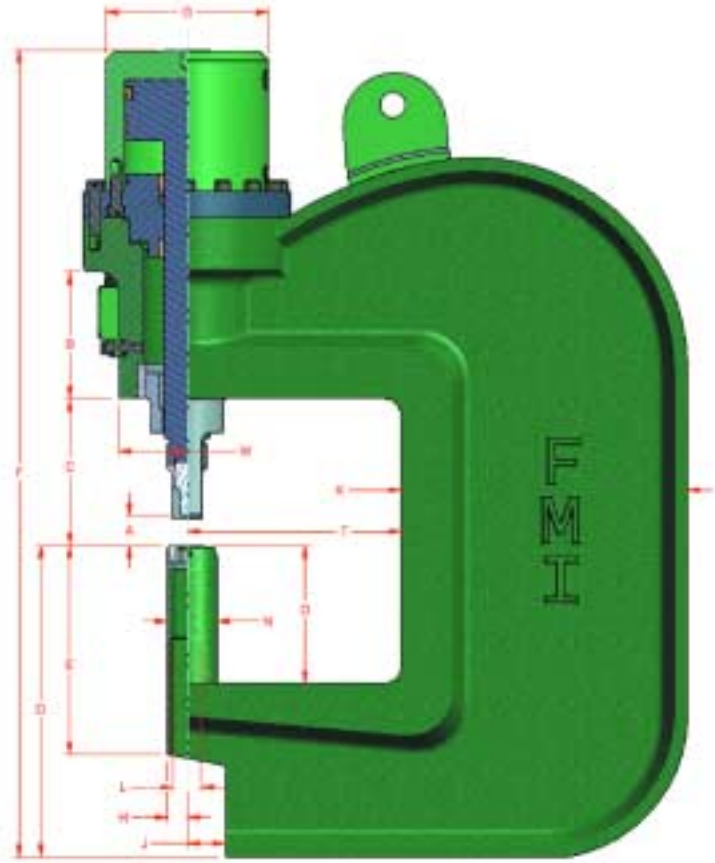
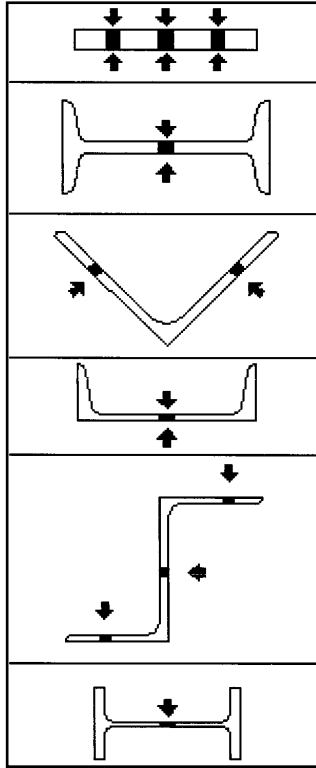
PRESS MODEL	PRESS CAPACITY IN TONS	MAXIMUM HOLE DIAMETER	LENGTH OF STROKE	HYDRAULIC POWER UNIT	HOSE AND CONTROL CABLE	SUSP. SPRING	TOOLING SERIES
W530X4	30 TONS	13/16"	1"	FMI-500-3HP FMI-500-5HP	500-1/4-20 500-1/4-20	F103	PUNCH C-740 DIE C-720
W550X7	50 TONS	1-1/2"	1-5/8"	FMI-500-3HP FMI-500-5HP FMI-500-10HP	500-1/4-20 500-3/8-20 500-3/8-20	F103	PUNCH C-770 DIE C-740
W570X8	70 TONS		2"			F1035	
W5100X12	100 TONS	1-1/2"	2"	FMI-500-10HP FMI-512-15HP	500-3/8-20 500-1/2-20	F2035	PUNCH C-7501 DIE C-7502 WITH C-770 PUNCH ADAPTER ASS'Y
W5100X18							
W5100X30							
W5125X12	125 TONS	2"	2 1/2"	FMI-512-15XP OR FMI-532-20HP	500-1/2-20 OR 500-1/2-20		
W5175X18	175 TONS						



# HYDRAULIC WEB PRESSES

## *Dimensions and Specifications*

### *Applications*



• SPECIFICATIONS    ■ Indicates stock presses    ■ Indicates made to order presses

PRESS MODEL NO.	W530X4	W550X7	W570X8	W5100X12	W5100X18	W5100X30	W5125X12	W5175X18
TONNAGE	30	50	70	100	100	100	125	125
THROAT DEPTHT	4-1/4	7-1/2	8-1/2	12-3/4	18-1/2	31-1/2	12-3/4	18-1/2
A	3/4	1-5/16	1-5/16	1-9/16	1-9/16	1-9/16	2-1/2	2
B	2-3/8	4-9/16	5-9/16	7-1/16	7-13/16	7-13/16	6-5/8	7-13/16
C	2-5/8	5-1/8	5-3/8	7-5/8	8-1/2	8-1/2	7-1/2	8-1/2
D	6-1/2	11-5/8	12-7/8	18	21-1/2	27-5/8	21	28
E	4-1/2	8-3/4	8-3/8	12	17-3/8	17-3/8	17	18
F	20-7/16	30-3/4	34-3/4	46-1/2	50-1/2	56-3/8	53	62
G	6	7-1/4	8	9-1/2	9-1/2	9-1/2	11	12-1/2
H	11/16	1-1/8	1-1/8	1-1/8	1-1/8	1-1/8	1-3/4	2
J	2-3/16	2-1/2	3-7/8	4-1/2	4	4	4	4-3/4
K	1-15/16	2-3/4	2-7/8	2-7/8	2-7/8	2-7/8	4	4
L	7/8	1-5/8	1-5/8	1-5/8	1-5/8	1-5/8	2-1/4	2-1/8
APPROX. WEIGHT	225#	495#	760#	1,750#	2,400#	9,200#	4,600#	3,700#

# PORTABLE HYDRAULIC POWER UNITS

*Units listed below are for use with hydraulic presses*

SPECIFICATIONS	FMI-500-3HP	FMI-500-5HP	FMI-500-10HP	FMI-512-15HP	FMI-532-20HP
Operating Pressure	5000 PSIG	5000 PSIG	5000 PSIG	5000 PSIG	500 PSIG
Pump Volume	1.25 GPM	2 GPM	4 GPM	12 GPM	32 GPM
Tank Capacity	10 GAL.	12 GAL.	12 GAL.	45 GAL.	45 GAL.
Hydraulic Fluid	ANTI-WEAR WITH 200 SUS @ 100 DEGREES F				
Filtering System	IN-TANK SUCTION	10 MICRON RETURN LINE W/ MAGNETIC PREFILTRATION			
Solenoid Valves	1 VALVE	1-5 VALVES (2 VALVES STANDARD)			
Motor	1-PHASE 115/230 VAC	TEFC, 1750 RPM, 3 PHASE		60 HZ 230/460 VAC	
Motor Starter	MECHANICAL START	STANDARD 460 VAC, OPTIONAL VOLTAGES 230, 575 OR 380 AT AN ADDITIONAL COST			



**Franklin model  
500-2V-10HP**

- High quality hydraulic parts
- Heavy duty welded hydraulic reservoir and support frame
- 10 Micron tank top return line filter for easy replacement
- Unit constructed manifold valves, eliminate unnecessary piping
- Adjustable pressure relief
- 0—6000 Glycerine filled pressure gauge
- Industrial grade ball bearing, (TEFC) totally enclosed fan cooled, 3 phase, C face motors
- Temp and level sight glass
- Mounted on casters

- Single phase power source
- Compact design
- Vertical mounted motor with submerged pump
- In-tank filter at the suction of the pump
- Single station manifold
- 0—6000 Glycerine filled pressure gauge
- Temp and level sight glass
- Mounted on casters



**Franklin model  
500-1V-3HP**

# HYDRAULIC HOSE AND CONTROL ASSEMBLY

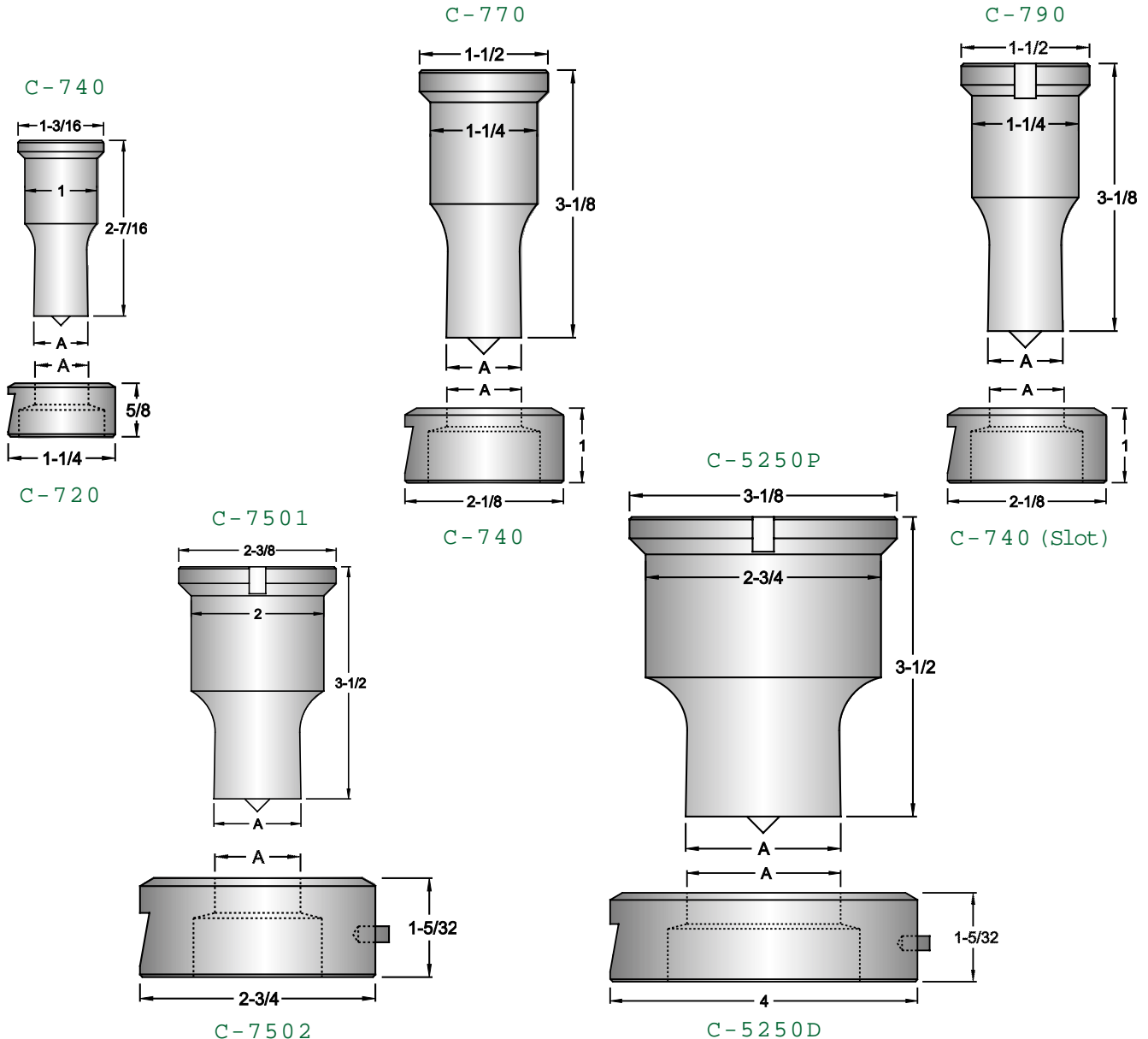


Horsepower	5HP	10HP	15/20HP
Part. No	500-1/4-20	500-3/8-20	500-1/2-20
Fittings	FJX37	FJX37	FJX37
Length	20'	20'	20'

\*Optional length available see the quotation for the price per foot adder

- (2) Hose — Sized as indicated above
- Wire from the Control Switches to the Control Valve on the Hydraulic Unit
- Handle Bar Assembly with the (2) Control boxes (Consisting of)
- (1) Safety Interlock Switch
- (1) Rocker Up/Down Switch

# TOOLING FOR HYDRAULIC PRESSES



**PRESS SIZING**

The first step to sizing your new press is to "know what you are punching". Use the chart below with the material thickness and hole diameter required. For material other than the 60,000 psi ultimate shear strength, use the tonnage chart multiplier to find the tonnage required.

*NOTE: If the tonnage required is over 85% of full press capacity, Franklin Manufacturing recommends going up to the next size press.*

**CALCULATION OF PERFORATING FORCE**

The formula for the tonnage required to perforate a given material, using flat-faced punches and dies, is:  $F = L \times T \times S$

- F = Force in tons
- L = Length of cut in inches. Use the circumference for round holes, perimeter for other shape holes.
- T = Thickness of material in inches
- S = Ultimate shear strength of material, in pounds per square inch (I.E. 60,000 PSI)



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When considering a Franklin C-Frame Portable Press, Franklin strongly urges careful analysis of your specific application. When properly applied your Franklin press will provide years of dependable service. The tonnage chart below will provide an approximate calculation of the tonnage required to pierce a given thickness material with the ultimate shear strength provided.

TONNAGE CHART MULTIPLIER		
Material	Ultimate Shear (80% of Tensile)	Multiplier
ASTM-A36	64,000 PSI	1.06
ASTM-A514	96,000 PSI	1.6
ASTM-A572-50	76,000 PSI	1.26
ASTM-A588	72,000 PSI	1.20
ASTM-A992	60,800 PSI	1.013
Aluminum	19,000 PSI	0.32

# Tons Required for Material with 60,000 PSI Shear Strength

## HOLE DIAMETER

MATERIAL THICKNESS	1/4	5/16	3/8	7/16	1/2	9/16	5/8	11/16	3/4	13/16	7/8	15/16	1	1 1/16	1 1/8	1 3/16	1 1/4	1 5/16	1 3/8	1 1/2	1 3/4	2	2 1/2	3
3/16"	4.4	5.5	6.6	7.7	8.8	9.9	11.0	12.1	13.2	14.3	15.4	16.5	17.6	18.7	19.8	20.9	22.0	23.1	24.2	26.4	30.9	35.3	44.1	52.9
1/4"	5.9	7.4	8.8	10.3	11.8	13.2	14.7	16.2	17.7	19.1	20.6	22.1	23.6	25.0	26.5	28.0	29.5	30.9	32.4	35.3	41.2	47.1	58.9	70.7
5/16"	9.2	11.0	12.9	14.7	16.5	18.4	20.2	22.1	24.0	25.7	27.6	29.4	31.3	33.0	34.9	36.8	38.6	40.4	44.1	51.5	58.8	73.5	88.2	106
5/8"	13.3	15.5	17.7	19.9	22.1	24.3	26.5	28.7	31.0	33.1	35.3	37.6	39.7	42.0	44.2	46.3	48.6	53.0	61.9	70.7	88.4	106	141	177
1/2"	23.6	26.5	29.4	32.4	35.3	38.3	41.2	44.2	47.1	50.0	52.9	55.9	58.9	61.8	64.8	70.6	82.5	94.3	118	147	177	212	247	283
5/8"							37.0	40.5	44.2	48.0	51.5	55.2	59.0	62.6	66.2	69.9	73.7	77.2	81.0	88.3	103	118	147	177
3/4"									53.0	57.4	62.0	66.3	70.7	75.0	79.4	83.9	88.4	92.7	97.2	106	124	141	177	212
7/8"											72.2	77.3	82.5	87.7	92.7	97.9	103	108	113	124	144	165	206	247
1"													94.3	100	106	112	118	124	130	141	165	189	236	283
1 1/8"															119	126	133	139	146	159	186	212	265	318

## PRESS SAFETY

- It is the user's responsibility that the machine and tooling be set up and used in accordance with local and national OSHA Laws and ANSI B11.5 standards for safety.
- Correct alignment of punch and die must be maintained.
- Correct placement of stripper must be maintained to prevent tilting of the work piece.
- Coupling nuts and die holders must be properly tightened to hold tooling securely.
- Extreme pressures are generated in all metal punching operations, use all recommended safety precautions.
- Clearance between the punch and die should be 10 — 15% of material thickness.
- The thickness of material should never exceed the punch diameter being used.