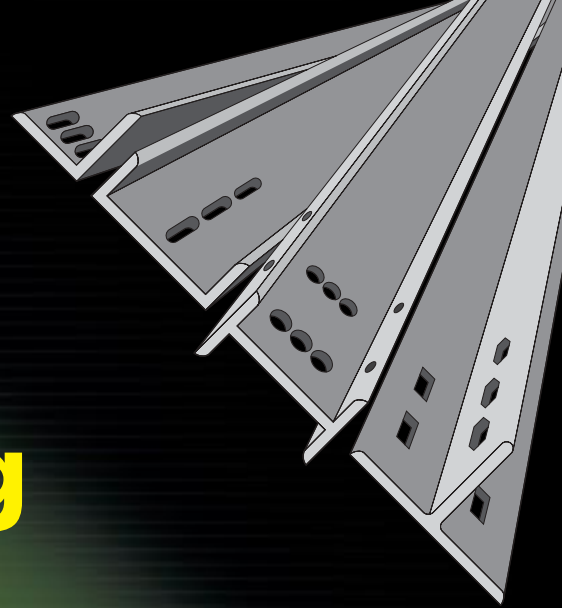


Whitney

Ironworker, Portable Press & Beamline Tooling



Catalog IST-2005



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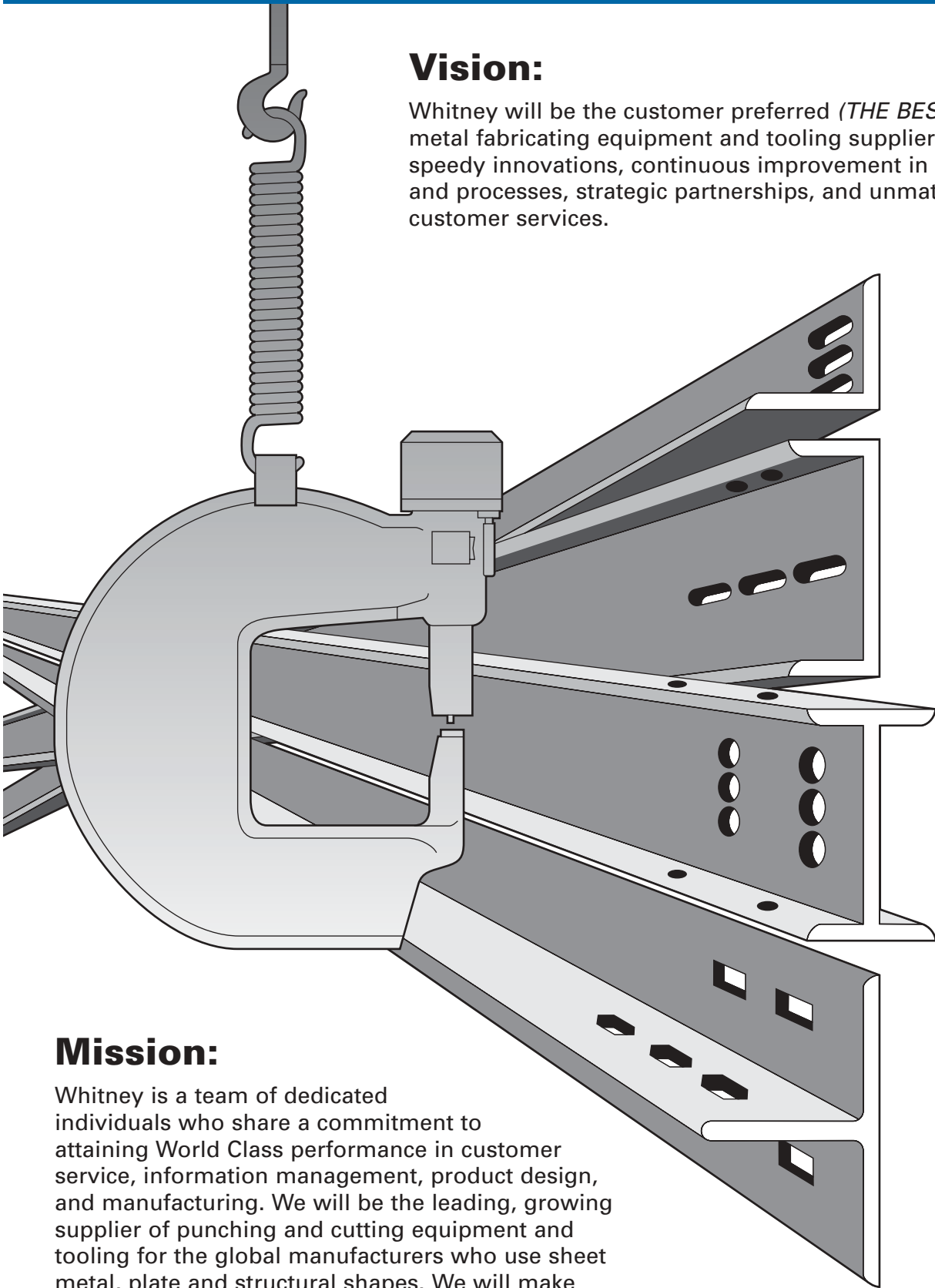
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Whitney

The **Leader** in Plate
Technology

Vision:

Whitney will be the customer preferred (*THE BEST*) metal fabricating equipment and tooling supplier through speedy innovations, continuous improvement in quality and processes, strategic partnerships, and unmatched customer services.



Mission:

Whitney is a team of dedicated individuals who share a commitment to attaining World Class performance in customer service, information management, product design, and manufacturing. We will be the leading, growing supplier of punching and cutting equipment and tooling for the global manufacturers who use sheet metal, plate and structural shapes. We will make the quality of life for our employees the best and provide superior financial performance.

Customer Information

	Machine Name	Model No.	Serial No.	Tonnage	W.A.W. Punch No.	W.A.W. Die No.
1	_____	_____	_____	_____	_____	_____
2	_____	_____	_____	_____	_____	_____
3	_____	_____	_____	_____	_____	_____
4	_____	_____	_____	_____	_____	_____
5	_____	_____	_____	_____	_____	_____
6	_____	_____	_____	_____	_____	_____

The Punch and Die Division of W.A. Whitney Co. is totally committed to providing the best tooling in the industry. Our modern 72,000 square foot facility is equipped with the latest production machinery and staffed with experienced people to meet the tooling requirements of the fabrication industry. We have earned a reputation for maintaining delivery promises, rigid quality control and fair pricing. Depend on us!

SAME DAY SHIPMENT

W.A. Whitney specializes in fast delivery. Punches and dies in inventory ordered by 3 p.m. C.S.T. will be shipped same day. Non-stock sizes of standard shapes will be shipped within 48 hours.

BIG ENOUGH/SMALL ENOUGH

We are big enough to handle all your requirements but small enough to respond to each individual customer's needs.

R & D, ENGINEERING AND MANUFACTURING

Our engineering and manufacturing personnel have a broad range of experience in designing and producing quality tooling. Coupled with the latest production machinery, heat treat technology and inspection equipment, this experience assures you tooling that will do the job right and produce profits in your operation.

INCHES OR METRIC

We are equally familiar with both systems, so you can get exactly the sizes you need for every punching job.



W.A. Whitney Co.
 650 Race Street
 P.O. Box 1206
 Rockford, IL 61105, U.S.A.
 Tel: 815-964-6771
 Fax: 815-964-3175
www.wawhitney.com

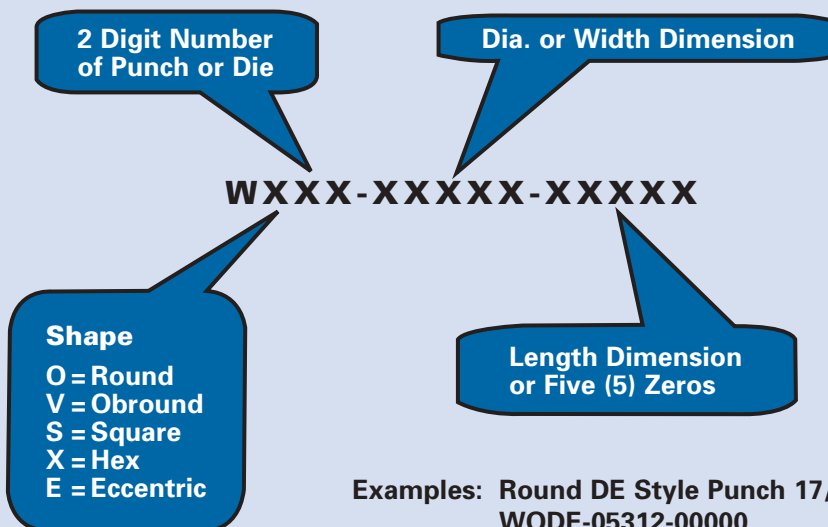
W.A. Whitney of Canada, Ltd.
 35 Van Kirk Drive, Unit #14
 Brampton, Ontario L7A 1A5
 Canada
 Tel: 905-456-9010
 Fax: 905-456-9066

W.A. Whitney de Mexico S.A.
 Viveros de la Colina #24
 Tlalnepantla, Edo. de Mexico 54080
 Tel: 52-55-5397-6858
 Fax: 52-55-5398-0607

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Part Numbering System for Ironworker Tooling



Examples: Round DE Style Punch 17/32 Dia.
 WODE-05312-00000
 Obround HH Style Die 11/32 x 25/32
 WVHH-03438-07812

Set-Up Information

Punch and Die Alignment

Alignment of the punch to the die is extremely important to the life of the tooling and quality of the hole being punched. Improperly aligned tools will cause premature wear.

Stripping Forces

Punch ends are usually broken off as a result of improper stripping. For good results the stripper must contact the material in at least two points, 180° apart *simultaneously*. Stripper should also be adjusted as close to material as possible.

Lubrication

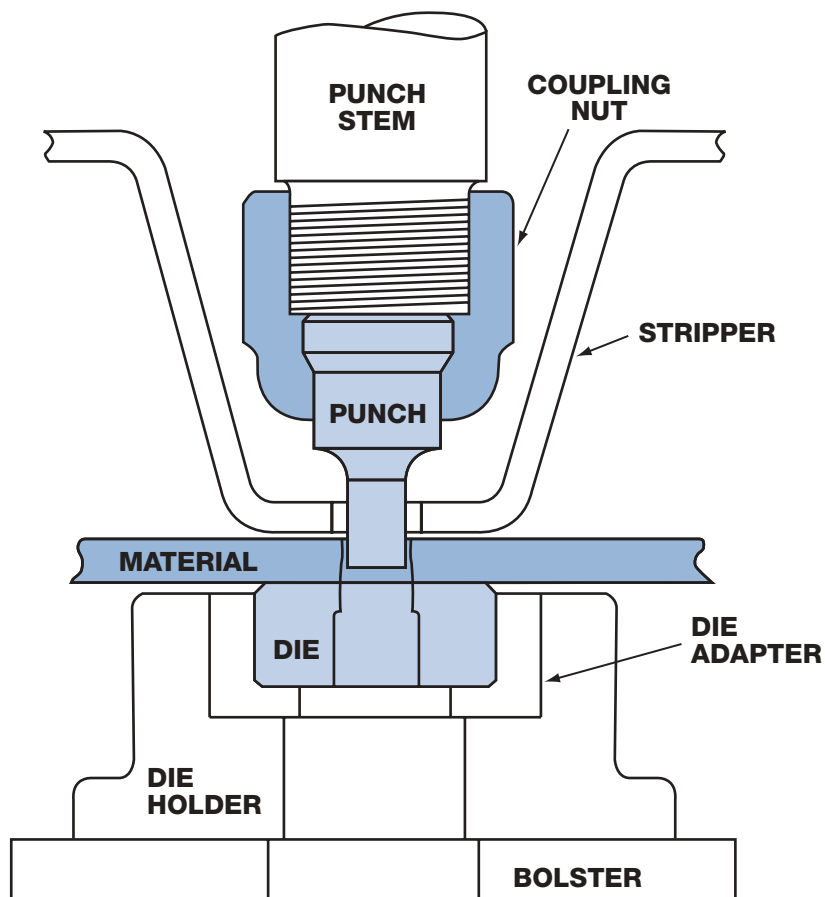
Lubricating the material and the punch with a good grade of cutting fluid will prolong the life of the tooling and reduce stripping forces. (Do not use penetrating oil)

Inspection

- Check that punches mate with dies of proper clearance.
- Clean all surfaces and holders.
- Check for proper fit and tightness of coupling nut to punch stem.

Warning: It is the users responsibility to set up and use the machinery and tooling in accordance with local and national OSHA laws and ANSI B11.5 safety standards. Only qualified personnel should be allowed to set up and operate the machine. Use extreme caution at all times.

Caution: Extreme pressures can be generated in metal punching. Use approved guards and safety glasses.



Determining Die Clearance

In order to receive optimum performance it is necessary that proper clearance be used. Without proper clearance, material will not fracture cleanly and excess punching pressures will result.

Ironworker Dies	
Clearances Recommended for Mild Steel	
Material Thickness	Die Clearance
16 Ga. thru 5/32	1/64
3/16 thru 5/16	1/32
11/32 thru 1/2	1/16
17/32 thru 3/4	3/32

Ironworker dies made to nominal size.

Cross Reference Charts

BATEMAN (Bantam)

Punch: No. BJ Die: No. HH

BEATTY MACHINE

Punch: No. EA Die: No. JC

BELOIT (See Hendley & Whitmore)

BOSCHERT

Model No.: XX-45* Punch: 28XX Die: 28XX

BRACEWELL (See Trojan)

BUFFALO IRONWORKER (Refer to pages 17-18 for complete information)

Model No.	0	1/2	1-1/2	2-1/2
Punch	No. FF	No. FG	No. FG	No. EA or No. FJ
Die	No. KJ	No. KK	No. BA	No. BB
Coupling	C-FF	C-FG	C-FG	C-EAB or C-FJ

BULLY (B & H Tool)

Model No.	M404	M408	M708	Oversize Attachment	Close Gage Line	Optional Attachment*
Punch	No. DH	No. DH	No. DH	No. EF	No. DH	28XX
Die	No. JC	No. JC	No. JC	No. JF	No. KJ	28XX
Coupling	C-DH	C-DH	C-DH	C-EF	C-DH	

DAVCO (See Bully)

DAVIS

Punch: No. EF Die: No. JF

DVORAK (See Scotchman or Uni-Hydro, refer to page 19)

EDWARDS JAWS IV

Punch: No. DH or No. EF Die: No. JB or No. JF

FABRILINE (Peddinghaus) (Refer to catalog page 20 for complete information)

FICEP

Model No.	Super 10	Super 10E	Super 13	Super 14	Super 16	ST Super 16	Super 20
Punch	No. DH	No. DH	No. DH	No. EA	No. EF	No. EA	No. EF
Die	No. HH	No. HH	No. JC	No. JC	No. JF	No. JC	No. JF
Model No.	UIW-45	UIW-60	UIW-80	UIW-100	UIW-125		
Punch	No. DH	No. DH	No. EA	No. EF	No. 48		
Die	No. JC	No. JC	No. JC	No. JF	No. JK		

FRANKLIN MANUFACTURING (Refer to catalog page 20 for complete information)

GEKA

Model No.	11H	13H	16H	20H	Minicrop	Microcrop	55A
Punch	No. DH	No. DH	No. EA	No. EA	No. DH	No. DH	No. DH
Die	No. JB	No. JB	No. JF	No. JC	No. JC	No. JC	No. JC
Model No.	HYD. 50	HYD. 70	HYD. 100	HYD. 150	80A	110A	165A
Punch	No. DH	No. DH	No. EA	No. EF	No. DH	No. EA	No. EF
Die	No. JC	No. JC	No. JC	No. JK	No. JC	No. JC	No. JK

Note: State keyway needed—See page 12

HMI (Hydraulic Machines, Inc.)

Model No.	35-07	35-14	35-19	35DT-19	50-07	50-14	50-19	50DT-19
Punch	No. DH	No. EF	No. DH	No. DH	No. DH	No. EF	No. EF	No. EF
Die	No. JC	No. JF	No. JC	No. JC	No. JC	No. JF	No. JF	No. JF
Coupling	C-DHA	C-DHC	C-DHA	C-DHA	C-DHA	C-DHC	C-DHC	C-DHC
Model No.	50-25	50-31	70-14	70-31	90-14	90-31	110-14	110-31
Punch	No. EF	No. EF	No. EF	No. EF	No. EF	No. EF	No. EF	No. EF
Die	No. JF	No. JF	No. JF	No. JF	No. JF	No. JF	No. JF	No. JF
Coupling	C-DHC	C-DHC	C-DHC	C-DHC	C-DHC	C-DHC	C-DHC	C-DHC

**For information on 28XX Tooling contact W.A. Whitney*

HMI *continued...*

<u>Model No.</u>	<u>130-14</u>	<u>130-31</u>	<u>Oversize Attachment*</u>
Punch	No. EF	No. EF	28XX
Die	No. JF	No. JF	28XX
Coupling	C-DHC	C-DHC	

HTC

Punch: No. EA Die: No. JC

HENDLEY & WHITMORE (Beloit)

<u>Model No.</u>	<u>53</u>	<u>54</u>	<u>55</u>	<u>55-1/2</u>
Punch	No. DE	No. DE	No. EA	No. EF
Die	No. HH	No. JC	No. JC	No. JF

HERCULES

<u>Model No.</u>	<u>CEP-13</u>	<u>CEP-16</u>
Punch	No. DH	No. EA
Die	No. JB	No. JF

HILL ACME (Kling Engineering)

<u>Model No.</u>	<u>No. 3A</u>	<u>No. 3 HYD</u>	<u>No. 4</u>	<u>No. 4A</u>	<u>No. 5</u>	<u>No. 6</u>
Punch	No. EA	No. DE	No. EA	No. EA	No. EA	No. EA
Small Jaw	No. HC	No. HC	No. HC	No. HC	No. HC	No. HC
Large Jaw	No. HH	No. HH	No. HH	No. JC	No. JC	No. JC
Coupling	C-EA	C-DE	C-EA	C-EA	C-EA	C-EA
<u>Model No.</u>	<u>No. 6A</u>	<u>No. 7</u>	<u>No. 7A</u>	<u>MW 30</u>	<u>MW 50</u>	
Punch	No. EA	No. EF	No. EF	No. DE	No. EA	
Small Jaw	No. HC	No. HH	No. HH			
Large Jaw	No. JC	No. JF	No. JF	No. HH	No. JC	
Coupling	C-EA	C-EF	C-EF	C-DE	C-EA	
<u>Model No.</u>	<u>1-1/2 Oversize Attachment</u>					
Punch	No. EF					
Die	No. JF					
Coupling	C-EF					

HILLES & JONES

<u>Model No.</u>	<u>H & J No. 5</u>	<u>H & J No. 6</u>	<u>H & J No. 7</u>
Punch	No. DE	No. EA	No. EF
Die	No. JC	No. JF	No. JK

IRONCRAFTER

<u>Model No.</u>	<u>Up to 95 Tons</u>	<u>Over 95 Tons</u>	<u>28XX Attachment*</u>
Punch	No. EA	No. EF	28XX
Die	No. JC	No. JF	28XX
Coupling	C-EA	C-EF	

KINGSLAND

<u>Model No.</u>	<u>121</u>	<u>130K</u>
Punch	EA	EF
Die	JF	JF

KLING IRONWORKER (See Hill Acme)

LANSING (see Omera)

LEHMAN (See Bateman)

MANCO (See Fabriline Div. of Peddinghaus)

MEGA WORKER (See Piranha)

METAL FABRICATING SYSTEMS

<u>Model No.</u>	<u>Bar Line</u>	<u>100 Ton Portables</u>	<u>105 Beamline</u>	<u>106 Beamline</u>	<u>Series 250</u>
Punch	No. EA	No. 770	No. 740	No. 770	No. 770
Die	No. JC	No. 740	No. 720	No. 740	No. 740
<u>Model No.</u>	<u>Series 250 Angline</u>		<u>Series 250 Angline</u>		
	<u>(Less than 2-1/2" angle)</u>		<u>(2-1/2" & greater angle)</u>		
Punch	No. 740		No. 770		
Die	No. 720		No. 740		

*For information on 28XX Tooling contact W.A. Whitney

Cross Reference Charts

METAL MUNCHER

<u>Model No.</u>	<u>MM35</u>	<u>MM61</u>	<u>MM61E</u>	<u>MM90</u>	<u>MM90C</u>	<u>MM110</u>	
Punch	No. DH	No. EF	No. EF	No. EF	No. EF	No. EF	
Die	No. JC	No. JF	No. JF	No. JF	No. JF	No. JF	
Coupling	C-DHA	C-DHC	C-DHC	C-DHC	C-DHC	C-DHC	
<u>Model No.</u>	<u>GB35</u>	<u>GB50</u>	<u>GB90</u>	<u>GB110</u>	<u>Oversize Attachment*</u>	<u>Optional Attachment</u>	
Punch	No. DH	No. EF	No. EF	No. EF	28XX	No. 770	
Die	No. JC	No. JF	No. JF	No. JF	28XX	No. 740	
Coupling	C-DHA	C-DHC	C-DHC	C-DHC			

MIDWEST MANUFACTURING

Punch: No. EF Die: No. JF

MUBEA IRONWORKER

<u>Model No.</u>	<u>0</u>	<u>1/2</u>	<u>1-1/2</u>	<u>2-1/2</u>	<u>3-1/2</u>	<u>50</u>	
Punch	No. DH	No. DH	No. DH	No. EA	No. EA or No. FJ	No. DH	
Die	No. JB	No. JB	No. JB	No. JC	No. JC or No. JG	No. JB	
<u>Model No.</u>	<u>71</u>	<u>88</u>	<u>110</u>	<u>143</u>	<u>250</u>	<u>350</u>	
Punch	No. DH	No. DH	No. EA	No. EA or No. FJ	No. EA or No. FJ	No. DH	
Die	No. JB	No. JB	No. JC	No. JC or No. JG	No. JC or No. JG	No. JB	
<u>Model No.</u>	<u>400</u>	<u>450</u>	<u>500</u>	<u>550</u>	<u>560</u>	<u>600</u>	<u>750</u>
Punch	No. DH	No. DH	No. DH	No. DH	No. DH	No. DH	No. DH
Die	No. JB	No. JB	No. JB	No. JB	No. JB	No. JB	No. JB
<u>Model No.</u>	<u>900</u>	<u>1000</u>	<u>1100</u>	<u>1300</u>			
Punch	No. EA or No. FJ	No. EA or No. FJ	No. EA or No. FJ	No. EA or No. FJ	No. EA or No. FJ	No. EA or No. FJ	
Die	No. JC or No. JG	No. JC or No. JG	No. JC or No. JG	No. JC or No. JG	No. JC or No. JG	No. JC or No. JG	

Note: State keyway needed—See page 12

OMERA

<u>Model No.</u>	<u>M-10 Hydra</u>	<u>115-35S</u>	<u>13-45S</u>	<u>16-70S</u>	<u>20-95S</u>
Punch	No. EA	No. EA	No. EA	No. EF	No. EF
Die	No. JC	No. JC	No. JC	No. JF	No. JF

OMES/PROMOCO

<u>Model No.</u>	<u>CH-50</u>	<u>CH-70</u>	<u>CH-100</u>
Punch	No. DH	No. EA	No. EA
Die	No. JB	No. JC	No. JC

PEDDINGHAUS

Mechanical Ironworkers

<u>Model No.</u>	<u>Forax 25E</u>	<u>Forax 45</u>	<u>Forax 65</u>	<u>Forax 80</u>	<u>Forax 100</u>	<u>210/11</u>	<u>210/13</u>	<u>210/16</u>
Punch	No. DE	No. DE	No. DE	No. EA	No. EA	No. DE	No. DE	No. EA
Die	No. JB	No. JB	No. JB	No. JC	No. JC	No. JB	No. JB	No. JC
Prior to Jun. '59						No. JC	No. JC	

<u>Model No.</u>	<u>210/20</u>	<u>210/25</u>	<u>225/11</u>	<u>225/13</u>	<u>225/16</u>	<u>225/20</u>	<u>225/25</u>	<u>225B45</u>
Punch	No. EA	No. EF	No. DE	No. DE	No. EA	No. EA	No. EF	No. DE
Die	No. JC	No. JF	No. JB	No. JB	No. JC	No. JC	No. JF	No. JB

<u>Model No.</u>	<u>225B60</u>	<u>225B80</u>	<u>225B100</u>	<u>225B130</u>	<u>450M</u>
Punch	No. DE	No. EA	No. EA	No. EF	No. DE
Die	No. JB	No. JC	No. JC	No. JF	No. JB

Hydraulic Ironworkers

<u>Model No.</u>	<u>31/44H</u>	<u>44/66H</u>	<u>66/11 OH</u>	<u>110/175H</u>	<u>360H</u>	<u>440</u>	<u>660</u>	<u>H-40</u>
Punch	No. DE	No. DE	No. DE	No. EA	No. DE	No. DE	No. DE	No. DE
Die	No. JB	No. JB	No. JB	No. JC	No. JB	No. JB	No. JB	No. JB

<u>Model No.</u>	<u>H-60N</u>	<u>H-1000</u>	<u>H-1000GA</u>	<u>H-1100</u>	<u>H-1400</u>
Punch	No. DE	No. EA	No. EA	No. EA	No. EF
Die	No. JB	No. JC	No. JC	No. JC	No. JF

*For information on 28XX Tooling contact W.A. Whitney

PEDDINGHAUS *continued...*

CNC Detail Fabricators

<u>Model No.</u>	<u>F1120</u>	<u>F1154</u>
Punch	No. 770	No. 770
Die	No. 740	No. 740
Die	No. 790XX	No. 790XX

Note: 4 mm keyway recommended on shapes.

PIRANHA***

<u>Model No.</u>	<u>P-36</u>	<u>P-50</u>	<u>P-70</u>	<u>P-90</u>	<u>P-120</u>	<u>PII-35</u>	<u>PII-65</u>	<u>PII-88</u>
Punch	No. DH	No. DH	No. EF	No. EF	No. EF	No. DH	No. EF	No. EF
Die	No. JB	No. JB	No. JF	No. JF	No. JF	No. JB	No. JF	No. JF
Coupling	C-FG	C-FG	C-EF	C-EF	C-EF			
<u>Model No.</u>	<u>PII-110</u>	<u>PII-140</u>	<u>SEPP-35</u>	<u>SEPP-65</u>	<u>SEPP-88</u>	<u>SEPP-120</u>	<u>SEPP-140</u>	
Punch	No. EF	No. EF	No. DH	No. DH	No. EF	No. EF	No. EF	
Die	No. JF	No. JF	No. JB	No. JB	No. JF	No. JF	No. JF	
<u>Model No.</u>	<u>No. 1 Oversize Attachment</u>		<u>No. 2 Oversize Attachment*</u>		<u>No. 3 Oversize Attachment*</u>			
Punch	No. EF		28XX		28XX			
Die	No. JF		28XX (3-3/4 OD)		28XX (5-3/4 OD)			
Coupling	C-EF							

PROFEL

<u>Model No.</u>	<u>PC 120</u>	<u>PC 200</u>	<u>PC 3000</u>
Punch	No. DH	No. DH	No. 740
Die	No. 740	No. 740	No. 720

ROPER WHITNEY*

<u>Model No.</u>	<u>No. 5JR</u>	<u>No. 8</u>	<u>No. 15</u>	<u>CTL20</u>	<u>No. 24</u>	<u>No. 25</u>	<u>No. EA</u>	<u>No. 118</u>
Punch	No. EF	No. 2	28XX	No. 720	No. 720	No. 720	No. 740	28XX
Die	No. EF	No. 2	28XX	No. 710	No. 720	No. 720	No. 740	28XX
<u>Model No.</u>	<u>No. 127</u>	<u>No. 129</u>	<u>No. 130</u>	<u>No. 150</u>	<u>No. 218</u>	<u>No. 230</u>	<u>No. 231</u>	<u>HP512A</u>
Punch	28XX	**	**	**	28XX	**	**	No. 720
Die	28XX	28XX	28XX	28XX	28XX	28XX	28XX	No. 720
<u>Model No.</u>	<u>HP514</u>	<u>HP520</u>	<u>HP520X6</u>	<u>HP535</u>	<u>HP535X8</u>	<u>HP550</u>	<u>HP550X10</u>	<u>GP308</u>
Punch	No. 720	No. 720	No. 720	No. 740	No. 740	No. 740	No. 740	No. 720
Die	No. 720	No. 720	No. 720	No. 740	No. 740	No. 740	No. 740	No. 720
<u>Model No.</u>	<u>GP313</u>	<u>GP323</u>						
Punch	No. 720	No. 740						
Die	No. 720	No. 740						

SCOTCHMAN (Refer to page 19 for complete information)

<u>Model No.</u>	<u>207</u>	<u>314C-6</u>	<u>314T</u>	<u>4014CM</u>	<u>4014TM</u>	<u>XL Models</u>	<u>5024</u>	<u>5075-24</u>
Punch	No. BF	No. BF	No. BF	No. BF	No. BF	No. EA	No. EA	No. EA
Die	No. BG	No. BG	No. BG	No. BG	No. BG	No. JC	No. JC	No. JC
Coupling	C-BFS	C-BFS	C-BFS	C-BFS	C-BFS	C-DHB	C-DHB	C-DHB
<u>Model No.</u>	<u>6509-24M</u>	<u>7012-24</u>	<u>M9012-24M</u>	<u>9075-24</u>	<u>12012-24M</u>	<u>No. 1 Oversize Attachment</u>		
Punch	No. EA	No. EA	No. EA	No. EA	No. EF	No. EF		
Die	No. JC	No. JC	No. JC	No. JC	No. JG	No. JG		
Coupling	C-DHB	C-DHB	C-DHB	C-DHB	C-DHC	C-DHC		

SIZOR (Refer to catalog page 20 for complete information)

SONTAG

Punch: No. DH Die: No. JC

SPRINGWATER (See Ironcrafter)

SUMMIT

<u>Model No.</u>	<u>No. 0</u>	<u>No. 1/2</u>	<u>No. 1-1/2</u>
Punch	No. DE	No. DH or No. EA	No. EA
Die	No. HH	No. JB or No. JC	No. JC
Coupling	C-DE		

TECMA

<u>Model No.</u>	<u>No. 6</u>	<u>No. 9</u>
Punch	No. EA	No. EF
Die	No. JC	No. JF
Coupling	C-EA	C-EF

* For information on 28XX Tooling contact W.A. Whitney
 ** Special tooling—Call for quotation
 *** Piranha—Double V-Notch only

Cross Reference Charts

TROJAN (Bracewell)

<u>Model No.</u>	<u>45 Ton</u>	<u>85 Ton</u>
Punch	No. DH	No. EF
Die	No. JC	No. JF
Coupling	C-DH	C-EF

UNI-HYDRO (Refer to page 19 for complete information)

<u>Model No.</u>	<u>20-8</u>	<u>30-8</u>	<u>35-14</u>	<u>T40-14</u>	<u>42-14</u>	<u>50-14</u>	<u>55-24 or 70-24</u>
Punch	No. BF	No. BF	No. BF	No. BF	No. BF	No. BF	No. BF
Die	No. BG	No. BG	No. BG	No. BG	No. BG	No. BG	No. BG or No. JG

VERNET

<u>Model No.</u>	<u>UP40</u>
Punch	No. DH
Die	No. JC

W.A. WHITNEY SHEET METAL PRESSES*

<u>Model No.</u>	<u>615A</u>	<u>615E</u>	<u>620 Pulsa</u>	<u>627E</u>	<u>630</u>	<u>635A</u>	<u>637A</u>	<u>2330</u>	<u>2530</u>
Punch	28XX	28XX	28XX	28XX	28XX	28XX	28XX	28XX	28XX
Die	28XX	28XX	28XX	28XX	28XX	28XX	28XX	28XX	28XX
<u>Model No.</u>	<u>647A</u>	<u>647B</u>	<u>647C</u>	<u>652E</u>	<u>652-50</u>	<u>653E</u>	<u>653-50</u>	<u>1524</u>	<u>2548</u>
Punch	28XX	28XX	28XX	28XX	28XX	28XX	28XX	28XX	28XX
Die	28XX	28XX	28XX	28XX	28XX	28XX	28XX	28XX	28XX
<u>Model No.</u>	<u>No. 91 & No. 92 Bench Press</u>		<u>No. 1</u>	<u>No. 2</u>	<u>No. 5</u>				
Punch	**		**	**	**				
Die	**		**	**	**				

W.A. WHITNEY STRUCTURAL FABRICATING EQUIPMENT (Refer to pages 20-24 for complete information)

WEBB

<u>Model No.</u>	<u>No. 4</u>
Punch	No. DH
Die	No. JB

WYSONG

<u>Model No.</u>	<u>100</u>	<u>300</u>
Punch	No. DH	No. EA
Die	No. HC or No. HH	No. JC

Note: Old Model 100 may use Punch No. BJ. (Refer to page 19)

* For information on 28XX Tooling contact W.A. Whitney

** Special tooling—Call for quotation

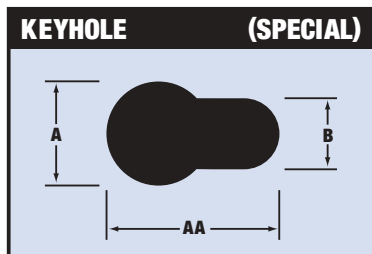
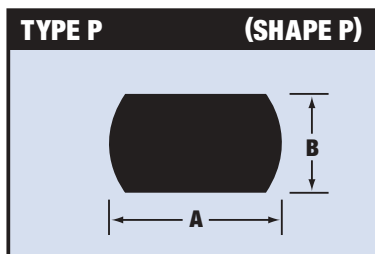
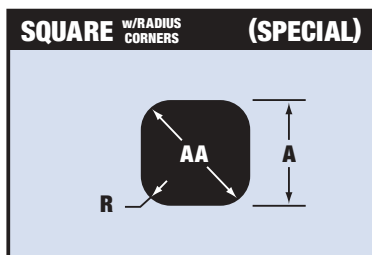
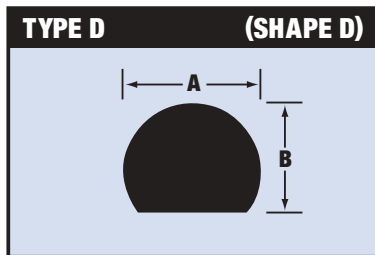
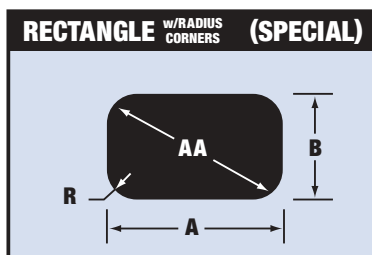
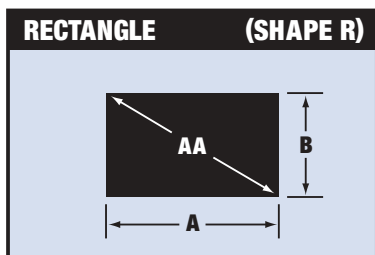
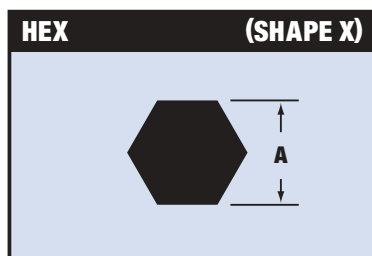
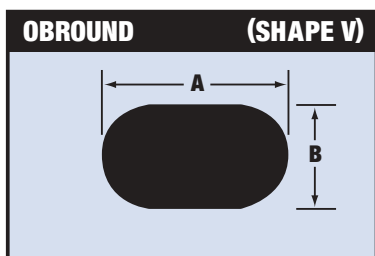
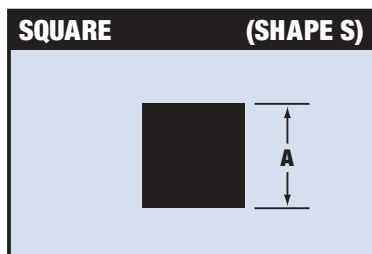
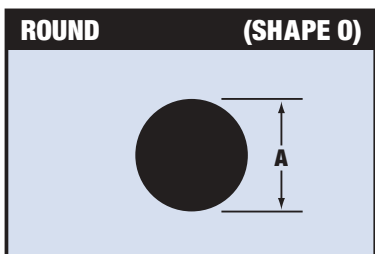
*Hydraulic Portable Presses, Hydraulic Beamlines and Hydraulic Anglegines
Cross Reference Information on page 20.*

Attention Fabricators:

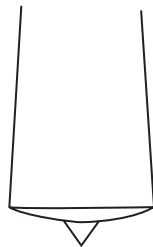
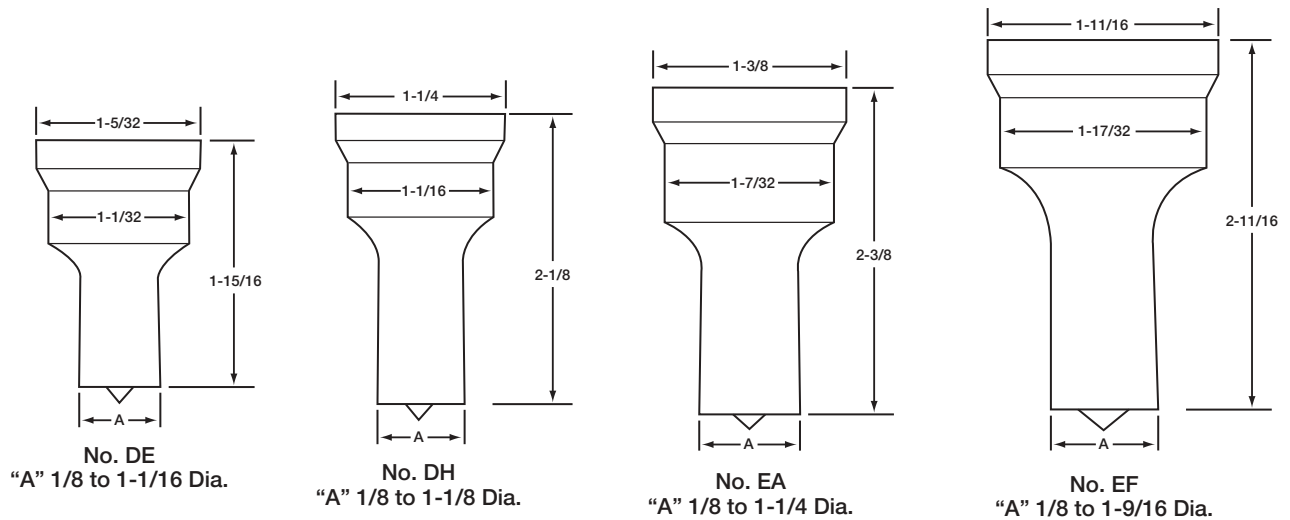
If machinery has been adapted for specific purposes, care must be taken to determine if the tooling specified by the manufacturer is still appropriate. W.A. Whitney cannot be held responsible for tooling supplied in error due to equipment adaptations.

Cross Reference Charts are for identification purposes only.

All punches in this catalog can be made in any shape.
 Shown below are a few of the most commonly used shapes.
 Please call or fax your inquiries to us.



Ironworker Punches



Punch Ends

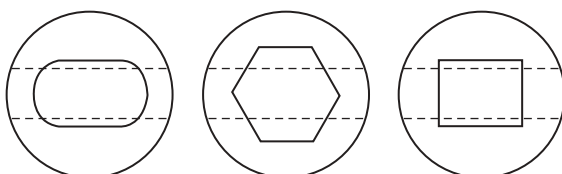
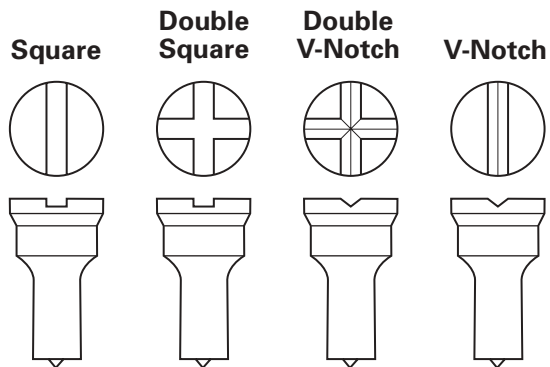
All punches will be furnished with a center point and a crowned face.

Keyway Options

Shaped punches are stocked without keyways, but can be added for a minimal charge. Please state size and type of slot needed.

Slot Sizes

1/4 wide by 1/8 deep
or 4 mm by 4 mm



Standard Keyway Positions for Shaped Punches

**Stock List of Round Punches
(Shape O)**

Sizes ▼	Punch No.			
	DE	DH	EA	EF
1/8		•	•	
5/32		•	•	
3/16	•	•	•	•
7/32	•	•	•	
1/4	•	•	•	•
9/32	•	•	•	•
5/16	•	•	•	•
11/32	•	•	•	•
3/8	•	•	•	•
13/32	•	•	•	•
7/16	•	•	•	•
15/32		•	•	•
1/2	•	•	•	•
17/32	•	•	•	•
9/16	•	•	•	•
19/32	•	•	•	•
5/8	•	•	•	•
21/32	•	•	•	•
11/16	•	•	•	•
23/32		•	•	
3/4	•	•	•	•
25/32		•	•	•
13/16	•	•	•	•
27/32		•	•	
7/8	•	•	•	•
29/32		•	•	
15/16	•	•	•	•
1	•	•	•	•
1-1/32		•	•	•
1-1/16	•	•	•	•
1-1/8		•	•	•
1-3/16			•	•
1-1/4			•	•
1-5/16				•
1-3/8				•
1-7/16				•
1-1/2				•
1-9/16				•

**Stock List of
Hexagon Punches
(Shape X)**

Sizes ▼	Punch No.		
	DE	DH	EA
17/32	•	•	•
23/32		•	•

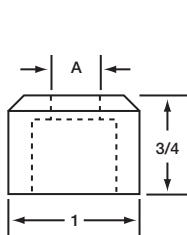
Stock List of Obround Punches (Shape V)

Sizes ▼	Punch No.			
	DE	DH	EA	EF
1/4 x 1/2		•	•	
1/4 x 3/4			•	
1/4 x 1	•	•	•	
9/32 x 3/4		•	•	
9/32 x 1		•	•	
5/16 x 1/2		•	•	
5/16 x 5/8		•	•	
5/16 x 3/4		•	•	
5/16 x 1	•	•	•	
5/16 x 1-1/4			•	•
11/32 x 1			•	
3/8 x 1/2		•	•	
3/8 x 3/4	•	•	•	
3/8 x 1	•	•	•	
3/8 x 1-1/4			•	•
13/32 x 13/16			•	
13/32 x 1	•	•	•	
13/32 x 1-1/4			•	
7/16 x 9/16		•		
7/16 x 3/4	•	•	•	•
7/16 x 1	•	•	•	•
7/16 x 1-1/4			•	•
7/16 x 1-1/2				•
1/2 x 3/4	•	•	•	
1/2 x 1	•	•	•	•
1/2 x 1-1/4			•	
17/32 x 1		•	•	
17/32 x 1-1/4			•	•
17/32 x 1-1/2				•
9/16 x 1-1/2				•
5/8 x 1	•	•	•	
5/8 x 1-1/4			•	•
5/8 x 1-1/2				•
11/16 x 1	•	•	•	•
11/16 x 1-1/4			•	•
11/16 x 1-1/2				•
3/4 x 1	•	•	•	
3/4 x 1-1/4			•	
3/4 x 1-1/2				•
13/16 x 1	•	•	•	•
13/16 x 1-1/8		•	•	•
13/16 x 1-1/4			•	•
13/16 x 1-1/2				•
7/8 x 1-1/4			•	•
7/8 x 1-1/2				•
15/16 x 1-1/8		•	•	•
15/16 x 1-1/4			•	•
15/16 x 1-9/16				•
1 x 1-1/4			•	
1 x 1-9/16				•
1-1/16 x 1-9/16				•

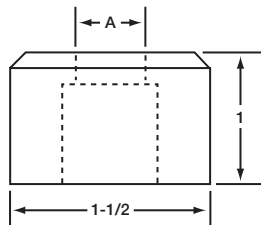
Stock List of Square Punches (Shape S)

Sizes ▼	Punch No.			
	DE	DH	EA	EF
1/4		•	•	
9/32			•	
5/16		•	•	
11/32	•	•	•	
3/8	•	•	•	
13/32	•	•	•	
7/16	•	•	•	•
15/32	•	•		
1/2	•	•	•	
17/32	•	•	•	
9/16	•	•	•	•
5/8		•	•	
21/32	•	•	•	
11/16	•	•	•	•
3/4	•	•	•	
25/32		•	•	
13/16	•	•	•	•
7/8		•		
1			•	
1-1/16				•

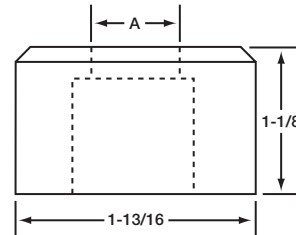
Ironworker Dies



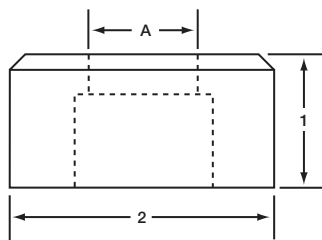
No. HC
"A" 9/64 to 3/4 Dia.



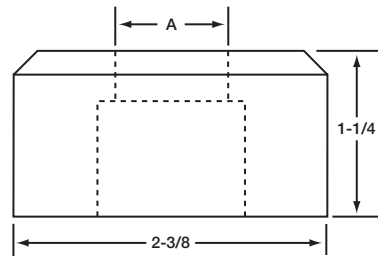
No. HH
"A" 9/64 to 1-1/8 Dia.



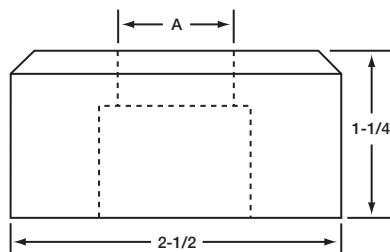
No. JB
"A" 9/64 to 1-3/16 Dia.



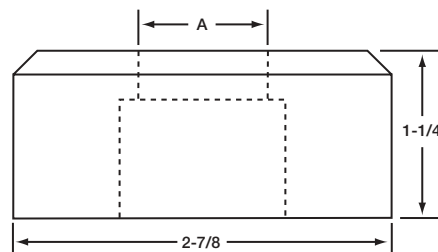
No. JC
"A" 9/64 to 1-3/8 Dia.



No. JF
"A" 7/32 to 1-5/8 Dia.



No. JG
"A" 3/4 to 1-5/8 Dia.



No. JK
"A" 3/4 to 1-11/16 Dia.

Stock List of Round Dies (Shape O)

Bore Sizes ▼	Die No.						
	HC	HH	JB	JC	JF	JG	JK
9/64			•	•			
3/32				•			
11/64		•		•			
3/16				•			
13/64	•	•	•	•			
7/32	•	•	•	•	•		
15/64	•	•	•	•			
1/4	•	•	•	•			
17/64	•						
9/32	•	•	•	•	•		
19/64	•						
5/16	•	•	•	•	•		
21/64	•						
11/32	•	•	•	•	•		
23/64	•						
3/8		•	•	•	•		
13/32	•	•	•	•	•		
7/16	•	•	•	•	•		
29/64	•						
15/32	•	•	•	•	•		

Bore Sizes ▼	Die No.						
	HC	HH	JB	JC	JF	JG	JK
1/2		•	•	•	•		
17/32	•	•	•	•	•		
9/16	•	•	•	•	•		
19/32	•	•	•	•	•		
5/8		•	•	•	•		
21/32	•	•	•	•	•		
11/16		•	•	•	•		
23/32	•		•	•	•		
3/4		•	•	•	•	•	
25/32		•	•	•	•		
13/16		•	•	•	•		
27/32		•	•	•	•		
7/8		•	•	•	•	•	•
29/32		•	•	•	•		
15/16		•	•	•	•		
31/32		•	•	•	•		
1		•	•	•	•	•	•
1-1/32		•	•	•	•		
1-1/16		•	•	•	•		
1-3/32		•	•	•	•		

Bore Sizes ▼	Die No.						
	HC	HH	JB	JC	JF	JG	JK
1-1/8		•	•	•	•	•	•
1-5/32			•	•	•		
1-3/16			•	•	•	•	
1-7/32				•	•		
1-1/4				•	•	•	
1-9/32				•	•		
1-5/16				•	•	•	
1-11/32					•		
1-3/8					•	•	•
1-13/32					•		
1-7/16					•	•	
1-15/32					•		
1-1/2					•	•	•
1-17/32					•		
1-9/16					•	•	•
1-19/32					•		
1-5/8					•	•	•
1-11/16							•

Stock List of Obround Dies (Shape V)

Bore Sizes ▼	Die No.			
	HH	JB	JC	JF
9/32 x 17/32	•	•	•	
9/32 x 25/32			•	
9/32 x 1-1/32		•	•	
5/16 x 25/32		•	•	
5/16 x 1-1/32		•	•	
11/32 x 17/32	•	•	•	
11/32 x 21/32		•	•	
11/32 x 25/32	•	•	•	
11/32 x 1-1/32	•	•	•	
11/32 x 1-9/32			•	•
3/8 x 1-1/32	•		•	
13/32 x 17/32	•	•	•	
13/32 x 25/32	•	•	•	
13/32 x 1-1/32	•	•	•	
13/32 x 1-9/32			•	•
7/16 x 27/32			•	
7/16 x 1-1/32	•	•	•	
7/16 x 1-9/32			•	
15/32 x 19/32		•	•	
15/32 x 25/32	•	•	•	•
15/32 x 1-1/32	•	•	•	•
15/32 x 1-9/32			•	•
15/32 x 1-17/32				•
17/32 x 25/32	•	•	•	

Bore Sizes ▼	Die No.			
	HH	JB	JC	JF
17/32 x 1-1/32	•	•	•	•
17/32 x 1-9/32			•	
9/16 x 1-1/32	•	•	•	
9/16 x 1-1/16		•	•	
9/16 x 1-9/32			•	•
9/16 x 1-17/32				•
19/32 x 25/32	•	•	•	
19/32 x 1-1/32	•	•	•	•
19/32 x 1-5/32		•	•	
19/32 x 1-9/32			•	•
5/8 x 13/16	•	•	•	
5/8 x 1-1/16	•	•	•	•
5/8 x 1-5/16			•	•
5/8 x 1-9/16				•
21/32 x 1-1/32	•	•	•	
21/32 x 1-9/32			•	
11/16 x 1-1/16			•	
11/16 x 1-5/16			•	•
11/16 x 1-9/16				•
23/32 x 1-1/32	•	•	•	•
23/32 x 1-9/32			•	
3/4 x 1-1/16	•	•	•	•
3/4 x 1-5/16			•	•
3/4 x 1-9/16				•

Bore Sizes ▼	Die No.			
	HH	JB	JC	JF
25/32 x 1-1/32		•		
25/32 x 1-9/32			•	
13/16 x 1-1/16		•	•	
13/16 x 1-9/16				•
27/32 x 1-1/32	•	•	•	•
27/32 x 1-5/32		•	•	
27/32 x 1-9/32			•	•
7/8 x 1-1/16	•	•	•	•
7/8 x 1-3/16		•		•
7/8 x 1-5/16			•	•
7/8 x 1-9/16				•
29/32 x 1-9/32			•	
15/16 x 1-5/16			•	•
15/16 x 1-9/16				•
31/32 x 1-5/32			•	
31/32 x 1-9/32			•	
1 x 1-3/16		•	•	•
1 x 1-5/16			•	•
1 x 1-5/8				•
1-1/16 x 1-5/16			•	•
1-1/16 x 1-5/8				•
1-1/8 x 1-5/8				•

Whitney Ironworker, Portable Press & Beamline Tooling

Ironworker Dies continued...

Stock List of Square Dies (Shape S)

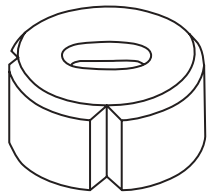
Bore Sizes		Die No.			Bore Sizes		Die No.		
▼	HH	JB	JC	JF	▼	HH	JB	JC	JF
9/32		•	•		11/16	•	•	•	•
5/16		•	•		23/32	•	•	•	
11/32	•		•		3/4		•	•	•
3/8	•	•	•		25/32		•	•	
13/32	•	•	•		13/16	•	•	•	•
7/16		•	•		27/32		•	•	
15/32	•	•	•	•	7/8		•	•	•
17/32	•	•	•		29/32			•	
9/16	•	•	•	•	15/16			•	
19/32	•	•	•		1-1/16				•
5/8	•	•	•	•	1-1/8				•
21/32		•	•						

Stock List of Hexagon Dies (Shape X)

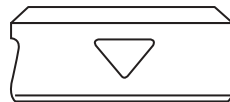
Bore Sizes		Die No.		
▼	HH	JB	JC	
1/2	•	•	•	
3/4	•	•	•	

Stock List of Eccentric Dies (Shape E)

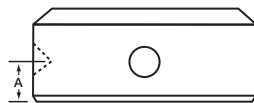
Bore Sizes		Die No.	
▼	JB	JC	
11/32	•	•	
13/32	•	•	
15/32	•	•	
17/32	•	•	
19/32	•	•	
11/16	•	•	
23/32	•	•	
25/32	•	•	
27/32		•	



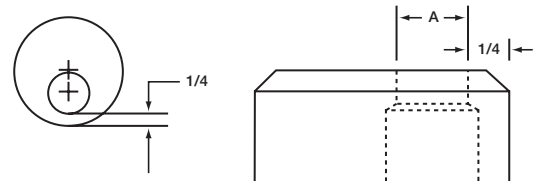
V-Groove



Whistle Notch



Spot Drill



Eccentric Hole Dies

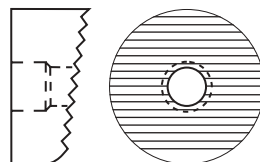
Round eccentric hole dies will be made so that edge of hole is 1/4" from die outside diameter.

Set Screw Lock Up

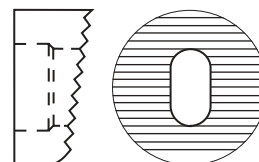
To prevent dies from lifting or rotating we offer a variety of set screw lock ups. Shaped dies are stocked without lock up positions, but can be added for a minimal charge. Please specify: Type and location of lock up needed.

Bevel Serrated Dies

Bevel serrated dies are available on request. Please specify die style, shape, orientation of shape to bevel and size.

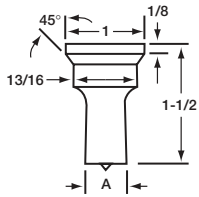


Parallel to Bevel

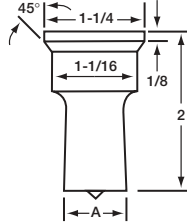


Perpendicular to Bevel

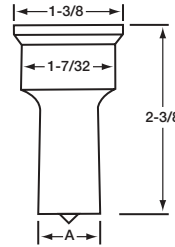
Buffalo Stock Punches



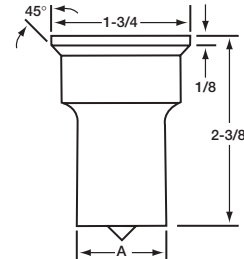
No. FF
"A" 1/8 to 13/16 Dia.
For No. 0



No. FG
"A" 3/16 to 1-3/32 Dia.
For No. 1/2 and No. 1-1/2



No. EA
"A" 1/8 to 1-1/4 Dia.
For No. 2-1/2



No. FJ
"A" 3/16 to 1-1/2 Dia.
For No. 2-1/2

Stock List of Round Punches (Shape O)

Sizes ▼	Punch No.				Sizes ▼	Punch No.				
	EA	FF	FG	FJ		EA	FF	FG	FJ	
1/8	•				5/8	•	•	•		
5/32	•				21/32	•				
3/16	•		•		11/16	•	•	•		
7/32	•		•		23/32	•				
1/4	•	•	•		3/4	•	•	•		
9/32	•	•	•		25/32	•		•		
5/16	•	•	•		13/16	•	•	•	•	
11/32	•	•	•		27/32	•		•		
3/8	•	•	•		7/8	•		•		
13/32	•	•	•		29/32	•				
7/16	•	•	•		15/16	•		•	•	
15/32	•				31/32	•				
1/2	•	•	•		1	•				
17/32	•	•	•		1-1/32	•				
9/16	•	•	•	•	1-1/16	•		•	•	
19/32	•				1-1/8	•				

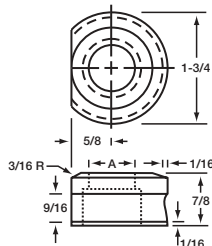
Stock List of Square Punches (Shape S)

Sizes ▼	Punch No.			Sizes ▼	Punch No.		
	EA	FF	FG		EA	FF	FG
1/4	•			9/16	•	•	
9/32	•			5/8	•		
5/16	•			21/32	•		•
11/32	•			11/16	•		
3/8	•	•		3/4	•		
13/32	•		•	25/32	•		
7/16	•			13/16	•		
1/2	•			7/8	•		
17/32	•		•				

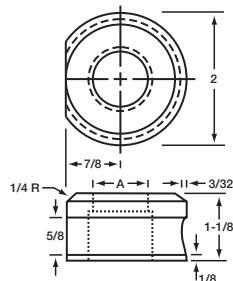
Stock List of Obround Punches (Shape V)

Sizes ▼	Punch No.			Sizes ▼	Punch No.			Sizes ▼	Punch No.						
	EA	FG	FJ		EA	FG	FJ		EA	FG	FJ				
1/4 x 1/2	•			3/8 x 3/4	•			17/32 x 1	•			3/4 x 1-1/4	•		
1/4 x 3/4	•			3/8 x 1	•	•		17/32 x 1-1/4	•			13/16 x 1	•		
1/4 x 1	•	•		3/8 x 1-1/4	•			9/16 x 3/4	•	•		13/16 x 1-1/16		•	
9/32 x 3/4	•			13/32 x 13/16	•			9/16 x 1	•	•		13/16 x 1-1/8	•		
9/32 x 1	•			13/32 x 1	•	•		9/16 x 1-1/8	•			13/16 x 1-1/4	•		
5/16 x 1/2	•			13/32 x 1-1/4	•			9/16 x 1-1/4	•			13/16 x 1-1/2			•
5/16 x 5/8	•			7/16 x 3/4	•	•		5/8 x 1	•	•		7/8 x 1-1/4	•		
5/16 x 3/4	•	•		7/16 x 1	•	•		5/8 x 1-1/4	•			15/16 x 1-1/8	•		
5/16 x 1	•	•		7/16 x 1-1/4	•			11/16 x 1	•			15/16 x 1-1/4	•		
5/16 x 1-1/4	•			1/2 x 3/4	•			11/16 x 1-1/16		•		1 x 1-1/4	•		
11/32 x 1	•			1/2 x 1	•	•		11/16 x 1-1/4	•			1-1/16 x 1-1/2			•
3/8 x 1/2	•			1/2 x 1-1/4	•			3/4 x 1	•	•					

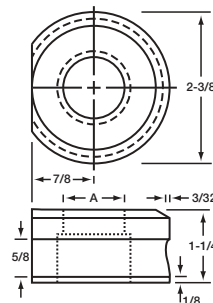
Buffalo Stock Dies



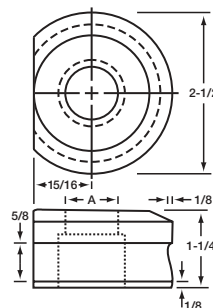
No. KJ
"A" 9/64 to 7/8
For No. 0



No. KK
"A" 13/64 to 1-5/32
For No. 1/2



No. BA
"A" 7/32 to 1-1/8
For No. 1-1/2



No. BB
"A" 9/32 to 1-17/32
For No. 2-1/2

Stock List of Round Dies (Shape O)

Bore Sizes	Die No.				Bore Sizes	Die No.			
▼	KJ	KK	BA	BB	▼	KJ	KK	BA	BB
7/32		•	•		3/4	•	•	•	•
1/4		•			25/32	•	•	•	•
9/32	•	•		•	13/16			•	
5/16	•	•		•	27/32	•	•	•	•
11/32	•	•	•	•	7/8	•	•	•	•
3/8	•	•			29/32		•		•
13/32	•	•		•	15/16		•		•
7/16	•	•		•	31/32		•	•	•
15/32	•	•	•	•	1			•	•
1/2			•	•	1-1/32		•		•
17/32	•	•	•	•	1-1/16		•		•
9/16	•	•		•	1-3/32		•	•	•
19/32	•	•	•	•	1-1/8			•	•
5/8			•	•	1-5/32		•		•
21/32	•	•	•	•	1-7/32				•
11/16			•	•	1-9/32				•
23/32	•	•	•	•					

Location of Shape to Flat
Flat of shape will be parallel to flat of die O.D. unless otherwise specified.

Stock List of Square Dies (Shape S)

Bore Sizes	Die No.		
▼	KJ	KK	BB
11/32			•
13/32	•		•
7/16		•	•
15/32		•	
17/32			•
9/16		•	•
19/32	•	•	
23/32		•	

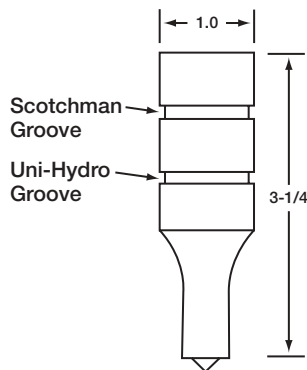
Stock List of Obround Dies (Shape V)

Bore Sizes	Die No.			Bore Sizes	Die No.			Bore Sizes	Die No.		
▼	KK	BA	BB	▼	KK	BA	BB	▼	KK	BA	BB
9/32 x 1-1/32	•			9/16 x 1-1/32			•	23/32 x 1-9/32			•
11/32 x 25/32	•			19/32 x 25/32	•			25/32 x 1-1/32	•		
11/32 x 1-1/32	•	•		19/32 x 1-1/32	•	•	•	27/32 x 1-1/32			•
13/32 x 1-1/32	•	•		19/32 x 1-9/32			•	27/32 x 1-3/32	•	•	
7/16 x 1-1/32	•		•	19/32 x 1-17/32			•	27/32 x 1-17/32			•
15/32 x 25/32	•	•		21/32 x 1-3/32	•			7/8 x 1-5/16			•
15/32 x 1-1/32	•	•		11/16 x 1-1/16			•	1-1/8 x 1-9/16			•
17/32 x 1-1/32	•	•		23/32 x 1-3/32	•	•					

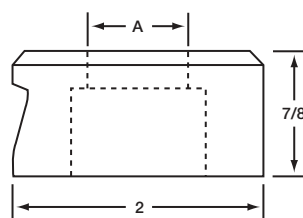
Tooling for Scotchman/Dvorak and Uni-Hydro

Stock List of Round Punches (Shape O)

Sizes ▼	Punch No. WOBF
3/16	•
1/4	•
5/16	•
3/8	•
13/32	•
7/16	•
1/2	•
17/32	•
9/16	•
5/8	•
11/16	•
3/4	•
13/16	•
7/8	•
15/16	•
1	•
1-1/16	•
1-1/8	•



No. BF



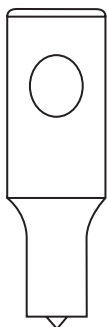
No. BG

Punches have two snap ring grooves. One snap ring is included with each punch.

Stock List of Round Dies (Shape O)

Sizes ▼	Die No. WOBG
13/64	•
9/32	•
5/16	•
11/32	•
13/32	•
7/16	•
15/32	•
17/32	•
9/16	•
19/32	•
21/32	•
23/32	•
25/32	•
13/16	•
27/32	•
29/32	•
31/32	•
1-1/32	•
1-1/16	•
1-3/32	•
1-5/32	•

Tooling for Lehman/Bateman



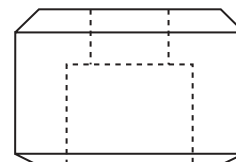
No. BJ

Stock List of Round Punches (Shape O)

Sizes ▼	Punch No. WOBJ
9/32	•
5/16	•
7/16	•
9/16	•

Stock List of Square Punches (Shape S)

Sizes ▼	Punch No. WSBJ
17/32	•
9/16	•
25/32	•



No. HH

For a listing of in-stock dies see pages 14 & 15.

Tooling for W.A. Whitney Machines

Press Model	Punch No.	Die No.	Press Model	Punch No.	Die No.	Press Model	Punch No.	Die No.
705	710	710	731	740	720	791	770	740
710	720	720	750	740	740	791X18	770	740
710CC	720	710	750AX6*	770/790XX	740/790XX	791-AX18*	770/790XX	740/790XX
720	720	720	751	740	740	791-AX30*	770/790XX	740/790XX
720X4	720	720	751AX7*	770/790XX	740/790XX	7150AX6	75 Style**	75 Style
720X6	720	720	770	770	740	7150AX12	75 Style**	75 Style
721	720	720	771	770	740	7151AX12	75 Style**	75 Style
730	740	740	771AX9*	770/790XX	740/790XX	7250AX12	75 Style	76 Style
730CC	740	720	790	770	740	Anglematic*	770/790XX	740/790XX
730X8	740	740	790X6	770	740	Beam Line*	770/790XX	740/790XX
730X8CC	740	740	790-AX6*	770/790XX	740/790XX	7130*	770/790XX	740/790XX

* 770 Punches & 740 Dies may be used for round holes. It will be necessary to remove or invert the punch key in ram.

** 770/790XX Tooling may be used for smaller sizes up to 1-1/4". (Not to exceed 100 tons of punching force)

See your owner's manual or contact W.A. Whitney for maximum hole diameter for your press.

Tooling for Fabriline Machines***

Press Model	Punch No.	Die No.	Press Model	Punch No.	Die No.	Press Model	Punch No.	Die No.
FFP-6	710	710	FFP-35-TC	740	720	FWP-20	720	720
FFP-12	720	720	FFP-35-8	740	740	FWP-35	740	720
FFP-20	720	720	FFP-60	770	740	FWP-60	770	740
FFP-20-4	720	720	FFP-80	770	740	FWP-80	770	740
FFP-20-6	720	720	FFP-80-8	770	740	FWP-100	770	740
FFP-35	740	740	FFP-100	770	740	FWP-100-18	770	740

Tooling for Franklin Manufacturing Presses***

Press Model	Punch No.	Die No.
W & F 530	740	720
W & F 500	770	740
W & F 550	770	740
W & F 570	770	740
W & F 5100	770	740
W & F 5175	75 Style	

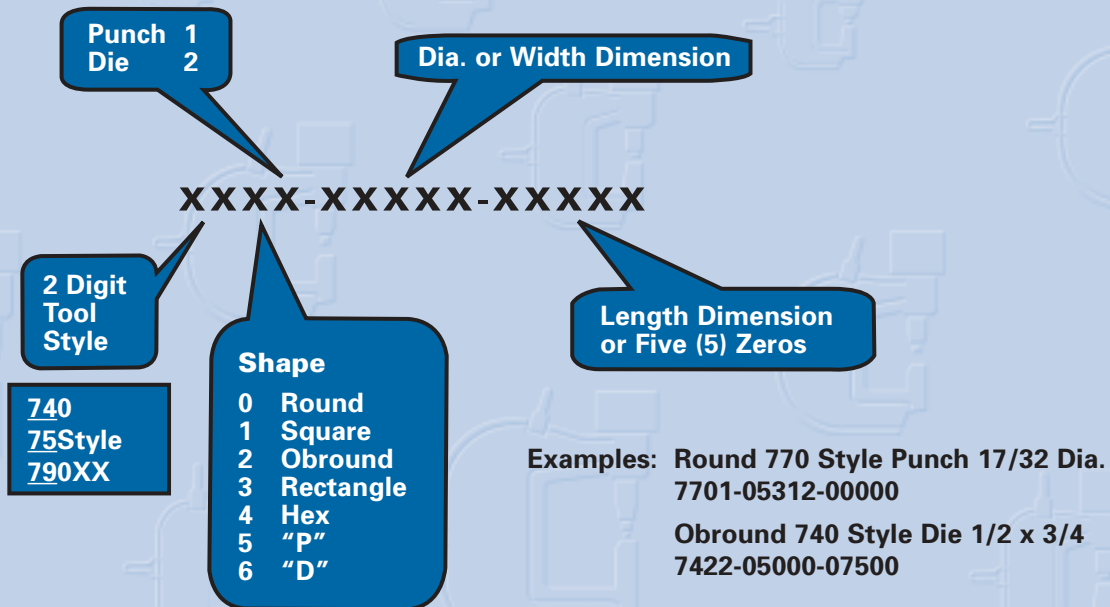
W=Web F=Flange

Tooling for Sizer

Press Model	Punch No.	Die No.
NC and Hydraulic Presses		
30 Ton	740	720
60 & 100 Ton	770	740
NC Angle, Channel & Flat		
60 & 100 Ton	770	740

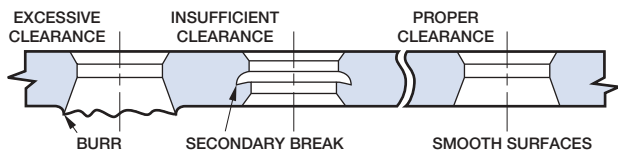
*** Some punches may require one or two square keyways. Please specify keyway requirements.
See page 12 for more information.

Part Numbering System for Whitney 700 Series Tooling



Die Clearance

(ASTM-36 Structural Steel)



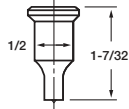
Determining Die Clearance

In order to receive optimum performance it is necessary that proper clearance be used. Without proper clearance, material will not fracture cleanly and excess punching pressures will result.

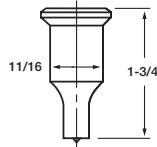
Whitney 700 Series	
MATERIAL THICKNESS	DIE CLEARANCE
16 ga. thru 5/32	1/64
3/16 thru 5/16	1/32
11/32 thru 1/2	1/16
17/32 thru 3/4	3/32
25/32 thru 1-1/4	1/8
1-9/32 thru 1-1/2	5/32

Whitney 700 Series Tooling for Structural Machines

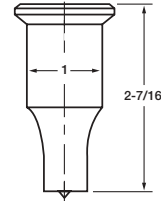
PUNCHES



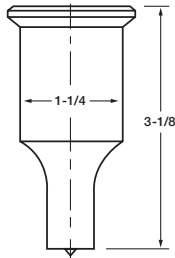
No. 710
"A" 3/32 to 9/16 Dia.



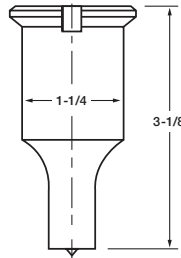
No. 720
"A" 1/8 to 13/16 Dia.



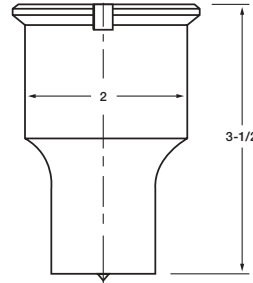
No. 740
"A" 7/32 to 1-1/2 Dia.



No. 770
"A" 7/32 to 1-1/2 Dia.



No. 790XX
"A" 7/32 to 1-1/2 Dia.



No. 7501
"A" 7/32 to 3 Dia.

Stock List of Round Punches (Shape O)

Sizes	Punch No.			Sizes	Punch No.		
▼	720	740	770	▼	720	740	770
1/8	•			11/16	•	•	•
5/32	•	•		23/32			•
3/16	•	•	•	3/4	•	•	•
7/32	•	•		25/32		•	•
1/4	•	•	•	13/16	•	•	•
9/32	•	•	•	27/32			•
5/16	•	•	•	7/8		•	•
11/32	•	•		29/32			•
3/8	•	•	•	15/16		•	•
13/32	•	•	•	1		•	•
7/16	•	•	•	1-1/16		•	•
15/32		•		1-1/8		•	•
1/2	•	•	•	1-3/16			•
17/32			•	1-1/4			•
9/16	•	•	•	1-5/16			•
19/32			•	1-3/8			•
5/8	•	•	•	1-7/16			•
21/32		•	•	1-1/2			•

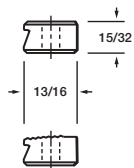
Stock List of Square Punches (Shape S)

Sizes	Punch No.	
▼	740	770
3/8	•	
7/16	•	
1/2	•	•
17/32	•	
9/16	•	•
5/8	•	
11/16	•	•
3/4	•	•
13/16		•

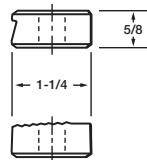
Stock List of Obround Punches (Shape V)

Sizes ▼	Punch No.			Sizes ▼	Punch No.			Sizes ▼	Punch No.		
	720	740	770		720	740	770		720	740	770
1/4 x 1		•	•	9/16 x 13/16	•	•		3/4 x 1		•	•
5/16 x 1		•	•	9/16 x 1		•	•	3/4 x 1-1/4			•
5/16 x 1-1/4		•		9/16 x 1-1/16			•	13/16 x 1		•	•
3/8 x 1		•	•	9/16 x 1-1/8			•	13/16 x 1-1/16			•
3/8 x 1-1/4			•	9/16 x 1-1/4		•	•	13/16 x 1-1/8			•
7/16 x 11/16		•		9/16 x 1-1/2		•	•	13/16 x 1-1/4		•	•
7/16 x 3/4	•	•		5/8 x 1		•	•	13/16 x 1-1/2			•
7/16 x 13/16	•	•		5/8 x 1-1/4			•	7/8 x 1			•
7/16 x 1		•	•	11/16 x 1		•	•	7/8 x 1-1/4			•
7/16 x 1-1/4			•	11/16 x 1-1/16			•	15/16 x 1-1/8			•
1/2 x 1		•	•	11/16 x 1-1/4			•	15/16 x 1-1/4			•
9/16 x 3/4		•		11/16 x 1-1/2			•	15/16 x 1-1/2			•

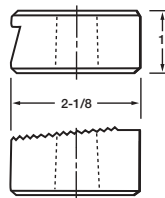
DIES



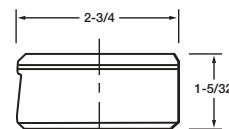
No. 710
No. 1102
"A" 3/32 to 9/16 Dia.



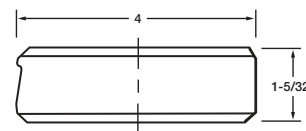
No. 720
No. 2102
"A" 1/8 to 27/32 Dia.



No. 740
No. 4102
"A" 7/32 to 1-17/32 Dia.



No. 7502
"A" 7/32 to 2 Dia.



No. 7602
"A" 7/32 to 3-1/16 Dia.

Stock List of Round Dies (Shape O)

Sizes ▼	Die No.		Sizes ▼	Die No.		Sizes ▼	Die No.		Sizes ▼	Die No.	
	720	740		720	740		720	740		720	740
5/32	•		1/2	•	•	27/32	•	•	1-3/16		•
3/16	•		17/32	•	•	7/8		•	1-7/32		•
7/32	•	•	9/16	•	•	29/32		•	1-1/4		•
1/4	•	•	19/32	•	•	15/16		•	1-9/32		•
9/32	•	•	5/8	•	•	31/32		•	1-5/16		•
5/16	•	•	21/32	•	•	1		•	1-11/32		•
11/32	•	•	11/16	•	•	1-1/32		•	1-3/8		•
3/8	•	•	23/32	•	•	1-1/16		•	1-13/32		•
13/32	•	•	3/4	•	•	1-3/32		•	1-15/32		•
7/16	•	•	25/32	•	•	1-1/8		•	1-17/32		•
15/32	•	•	13/16	•	•	1-5/32		•			

Whitney Ironworker, Portable Press & Beamline Tooling

700 Series Tooling continued...

Stock List of Obround Dies (Shape V)

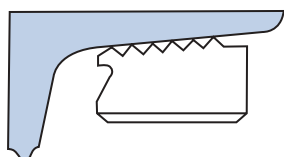
Sizes ▼	Die No.		Sizes ▼	Die No.		Sizes ▼	Die No.		Sizes ▼	Die No.	
	720	740		720	740		720	740		720	740
9/32 x 1-1/32		•	19/32 x 1-1/32		•	23/32 x 1-9/32		•	7/8 x 1-1/16		•
11/32 x 1-1/32		•	19/32 x 1-3/32		•	23/32 x 1-17/32		•	7/8 x 1-1/8		•
11/32 x 1-9/32		•	19/32 x 1-9/32		•	3/4 x 1-1/16		•	7/8 x 1-3/16		•
13/32 x 1-1/32		•	19/32 x 1-17/32		•	3/4 x 1-1/8		•	7/8 x 1-5/16		•
13/32 x 1-9/32		•	5/8 x 1-1/16		•	3/4 x 1-5/16		•	7/8 x 1-9/16		•
15/32 x 25/32	•	•	5/8 x 1-1/8		•	3/4 x 1-9/16		•	29/32 x 1-1/32		•
15/32 x 27/32	•		5/8 x 1-1/4		•	25/32 x 1-1/32		•	29/32 x 1-9/32		•
15/32 x 1-1/32		•	5/8 x 1-5/16		•	25/32 x 1-9/32		•	15/16 x 1-5/16		•
15/32 x 1-9/32		•	5/8 x 1-9/16		•	13/16 x 1-1/16		•	31/32 x 1-5/32		•
1/2 x 3/4		•	21/32 x 1-1/32		•	13/16 x 1-5/16		•	31/32 x 1-9/32		•
1/2 x 13/16		•	21/32 x 1-9/32		•	27/32 x 1-1/32		•	31/32 x 1-17/32		•
17/32 x 1-1/32		•	11/16 x 1-1/16		•	27/32 x 1-3/32		•	1 x 1-3/16		•
9/16 x 1-1/16		•	11/16 x 1-5/16		•	27/32 x 1-5/32		•	1 x 1-5/16		•
19/32 x 25/32		•	23/32 x 1-1/32		•	27/32 x 1-9/32		•	1 x 1-9/16		•
19/32 x 27/32	•	•	23/32 x 1-3/32		•	27/32 x 1-17/32		•			

Stock List of Bevel Serrated Dies

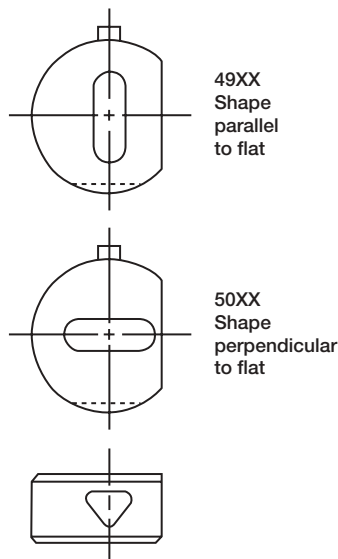
Sizes ▼	Die No.	Sizes ▼	Die No.
	4102		4102
17/32	•	25/32	•
9/16	•	13/16	•
19/32	•	27/32	•
5/8	•	7/8	•
21/32	•	29/32	•
11/16	•	15/16	•
23/32	•	1	•
3/4	•	1-1/16	•

Bevel Serrated Dies

Required for Punching Tapered Flanges



These dies should be used when punching is required on a tapered surface, such as flanges of I Beams ("S" shapes) or American Standard channels ("C" shapes). (9° bevel angle)

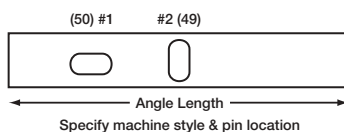


790XX Dies

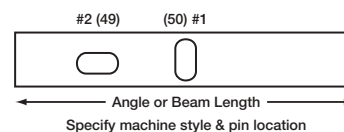
Stock List of Square Dies (Shape S)

Sizes ▼	Die No.	
	720	740
13/32		•
15/32		•
1/2		•
17/32	•	•
9/16	•	•
19/32	•	•
5/8		•
21/32		•
23/32		•
3/4		•
25/32		•
13/16		•
27/32		•
7/8		•

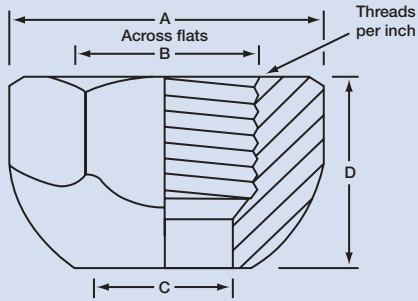
Pin Location—Anglematic



Pin Location—Beamline



Ironworker Coupling Nuts



Coupling Nut Number	Hexagon Size	Threads Per Inch	A	B	C	D
			Largest O.D.	Thread Diameter	Bore	Length Dimension
C-DH	2-1/2	10	2-7/8	2	1.070	1-5/8
C-DHA	2	10	2-5/16	1-3/8	1.070	1-5/8
C-DHB	2-1/2	10	2-7/8	2	1.228	1-5/8
C-DHC	2-1/2	10	2-7/8	2	1.537	1-5/8
C-DE	2	12	2-1/4	1-5/16	1.038	1-1/4
C-EA	2-1/4	12	2-5/8	1-9/16	1.228	1-1/2
C-EF	2-1/2	12	2-15/16	1-7/8	1.570	1-5/8

W.A. Whitney Coupling Nuts

Punch Style	Standard Nut	Split Nut
710-	010-001	010-002
720-	020-001	020-002
740-	040-001	040-002
770-	770-016	770-024
790XX*	790-061	790-070

*Presses 7150AX6, 7150AX12 and 7151AX12 use 715-022 Coupling Nut Assembly

75 Style	715-010	715-021*
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*Requires use of Straight Coupling 715-020

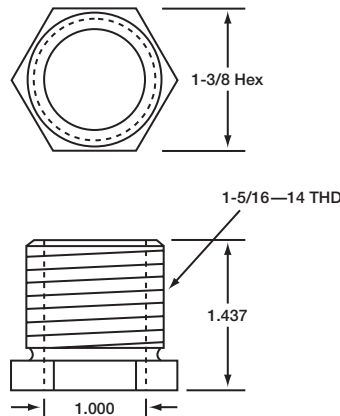
Split Coupling Nuts are required when punch size is over body size.



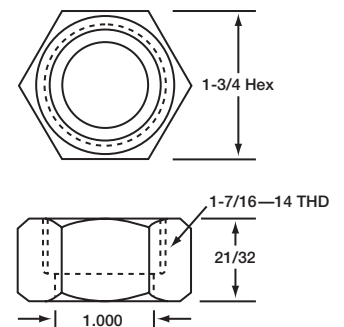
Buffalo Coupling Nuts

Coupling Nut Number	Model Number	Dia. of Stem	Threads Per Inch	Bore
C-FF	0	1-1/8	14	53/64
C-FG	1/2 & 1-1/2	1-3/8	12	1-5/64
C-EAB	2-1/2	1-7/8	12	1.228
C-FJ	2-1/2	1-7/8	12	1-33/64

Scotchman Coupling Nut C-BFS



Uni-Hydro Coupling Nut C-BFU



Tonnage Capacity Selection

Tons Force Required to Punch ASTM-A36 Structural Steel (60,000 PSI shear strength) for other materials see chart below for multipliers

HOLE DIA. (inches)	MATERIAL THICKNESS												
	1/16 16 ga. 0.063	1/8 11 ga. 0.125	3/16 0.187	1/4 0.250	5/16 0.312	3/8 0.375	1/2 0.500	5/8 0.625	3/4 0.750	7/8 0.875	1 1.000	1-1/8 1.125	1-1/4 1.250
1/4	1.4	3.0	4.4	5.9	7.3	8.8							
5/16	1.8	3.7	5.5	7.4	9.2	11.0							
3/8	2.1	4.4	6.6	8.8	11.0	13.3	17.7						
7/16	2.5	5.2	7.7	10.3	12.9	15.5	20.6						
1/2	2.8	5.9	8.8	11.8	14.7	17.7	23.6	29.5					
9/16	3.2	6.7	9.9	13.2	16.5	19.9	26.5	33.1					
5/8	3.5	7.4	11.0	14.7	18.4	22.1	29.4	37.0	44.2				
11/16	3.9	8.1	12.1	16.2	20.2	24.3	32.4	40.5	48.6				
3/4	4.2	8.9	13.2	17.7	22.1	26.5	35.3	44.2	53.0	62.0			
13/16	4.6	9.6	14.3	19.1	24.0	28.7	38.3	48.0	57.4	67.0	76.6		
7/8	4.9	10.3	15.4	20.6	25.7	31.0	41.0	51.5	62.0	72.2	82.5		
15/16	5.3	11.1	16.5	22.1	27.6	33.1	44.2	55.2	66.3	77.3	88.3	99.4	
1	5.6	11.8	17.6	23.6	29.4	35.3	47.1	59.0	70.7	82.5	94.3	106.0	
1-1/16	6.0	12.5	18.7	25.0	31.3	37.6	50.0	62.6	75.0	87.7	100.0	113.0	125.2
1-1/8	6.3	13.3	19.8	26.5	33.0	39.7	52.9	66.2	79.4	92.7	106.0	119.0	132.5
1-3/16	6.7	14.0	20.9	28.0	34.9	42.0	55.9	69.9	83.9	97.9	111.9	125.9	139.9
1-1/4	7.1	14.7	22.0	29.5	36.8	44.2	58.9	73.7	88.4	103.2	117.9	132.6	147.3
1-5/16	7.4	15.5	23.1	30.9	38.6	46.3	61.8	77.2	92.7	108.1	123.6	139.0	154.6
1-3/8	7.8	16.2	24.2	32.4	40.4	48.6	64.8	81.0	97.2	113.4	129.6	145.8	162.0
1-1/2	8.5	17.7	26.4	35.3	44.1	53.0	70.6	88.3	106.0	123.6	141.3	159.0	176.7
1-3/4	9.9	20.6	30.9	41.2	51.5	61.9	82.5	103.1	123.7	144.3	164.9	185.6	206.2
2	11.3	23.6	35.3	47.1	58.8	70.7	94.3	117.8	141.4	164.9	188.5	212.1	235.6
2-1/4	12.7	26.5	39.7	53.0	66.2	79.5	106.0	132.5	159.0	185.6	212.1	238.6	
2-1/2	14.2	29.5	44.1	58.9	73.5	88.4	117.8	147.3					
2-3/4	15.6	32.4	48.5	64.8	80.9	97.2	129.6						
3	17.0	35.4	52.9	70.7	88.2	106.0	141.4						

CHART MULTIPLIER for materials other than A-36 structural steel

TYPE OF MATERIAL	SHEAR STRENGTH PSI	CHART MULTIPLIER
Aluminum, 6061-T6	29,000	.48
Copper, 1/4 Hard	29,000	.48
Mild Steel, H.R. Plate 1020	50,000	.83
Boiler Plate	55,000	.92
Structural Cor-Ten (ASTM -A242)	60,000	1.00
Structural A572-GR50	55,000	.92
Steel, 50 Carbon HP Plate	74,000	1.23
Steel, Stainless 302, 304, 316	70,000	1.17
Structural T-1	110,000	1.83

For punching materials with a different shear strength than 60,000 PSI as listed in the tonnage charts, it is necessary to use a multiplier for calculating the proper amount of force required to punch the hole.

NOTE: To promote good punch life, always check material thickness to punch diameter ratio. Request Technical Paper No. 100-C for recommendations and explanation.

EXAMPLE

To punch a 7/8" diameter hole through 7/8" material, the force required (from the chart) is 72.2 tons. If this material is stainless steel, with a shear strength of 70,000 PSI, the correct multiplier to use is 1.17, therefore; 72.2 tons x 1.17 = 84.5 tons, actual force required.

Table of Diagonals (Squares and Rectangles)

	1/8	5/32	3/16	7/32	1/4	9/32	5/16	11/32	3/8	13/32	7/16	15/32	1/2			
1/8	.1767	.2001	.2253	.2519	.2795	.3077	.3365	.3657	.3953	.4250	.4550	.4851	.5153			
5/32	.2001	.2209	.2440	.2689	.2948	.3217	.3494	.3775	.4062	.4352	.4645	.4941	.5240			
3/16	.2253	.2440	.2651	.2881	.3125	.3378	.3644	.3914	.4192	.4474	.4759	.5048	.5340			
7/32	.2519	.2689	.2881	.3093	.3322	.3563	.3814	.4074	.4340	.4614	.4891	.5172	.5458			
1/4	.2795	.2948	.3125	.3322	.3535	.3763	.4001	.4250	.4507	.4770	.5035	.5312	.5591			
9/32	.3077	.3217	.3378	.3563	.3763	.3977	.4204	.4441	.4687	.4941	.5201	.5467	.5737			
5/16	.3365	.3494	.3644	.3814	.4001	.4204	.4419	.4645	.4881	.5125	.5376	.5633	.5897			
11/32	.3657	.3775	.3914	.4074	.4250	.4441	.4645	.4861	.5087	.5321	.5564	.5812	.6067			
3/8	.3953	.4062	.4192	.4340	.4507	.4687	.4881	.5087	.5303	.5528	.5762	.6003	.6250			
13/32	.4250	.4352	.4474	.4614	.4770	.4941	.5125	.5321	.5528	.5745	.5970	.6203	.6442			
7/16	.4550	.4645	.4759	.4891	.5035	.5201	.5376	.5564	.5762	.5970	.6187	.6412	.6644			
15/32	.4851	.4941	.5048	.5172	.5312	.5467	.5633	.5812	.6003	.6203	.6412	.6629	.6854			
1/2	.5153	.5240	.5340	.5458	.5591	.5737	.5897	.6067	.6250	.6442	.6644	.6854	.7071			
	17/32	9/6	19/32	5/8	21/32	11/16	23/32	3/4	25/32	13/16	27/32	7/8	29/32	15/16	31/32	1
1/8	.5457	.5762	.6067	.6373	.6680	.6987	.7295	.7603	.7911	.8220	.8529	.8839	.9148	.9458	.9768	1.0078
5/32	.5537	.5538	.6139	.6442	.6746	.7050	.7355	.7661	.7967	.8274	.8581	.8888	.9196	.9504	.9812	1.0121
3/16	.5633	.5929	.6226	.6525	.6825	.7126	.7428	.7731	.8034	.8339	.8643	.8948	.9254	.9560	.9867	1.0174
7/32	.5745	.6035	.6327	.6622	.6918	.7215	.7513	.7812	.8113	.8414	.8716	.9019	.9323	.9627	.9931	1.0236
1/4	.5871	.6155	.6442	.6731	.7022	.7315	.7610	.7906	.8203	.8501	.8800	.9100	.9401	.9703	1.0000	1.0307
9/32	.6011	.6289	.6570	.6853	.7140	.7428	.7718	.8010	.8303	.8598	.8894	.9191	.9488	.9788	1.0087	1.0387
5/16	.6163	.6434	.6709	.6987	.7268	.7552	.7837	.8125	.8414	.8705	.8997	.9291	.9586	.9882	1.0179	1.0477
11/32	.6327	.6592	.6861	.7133	.7408	.7686	.7967	.8250	.8535	.8822	.9111	.9401	.9692	.9985	1.0279	1.0574
3/8	.6503	.6760	.7022	.7288	.7558	.7831	.8107	.8385	.8666	.8948	.9233	.9519	.9808	1.0097	1.0387	1.0680
13/32	.6688	.6938	.7194	.7454	.7718	.7985	.8256	.8529	.8805	.9084	.9364	.9647	.9931	1.0217	1.0505	1.0794
7/16	.6882	.7126	.7375	.7629	.7887	.8149	.8414	.8682	.8954	.9228	.9504	.9783	1.0063	1.0345	1.0629	1.0915
15/32	.7085	.7322	.7565	.7812	.8064	.8321	.8581	.8844	.9111	.9380	.9652	.9926	1.0203	1.0481	1.0762	1.1044
1/2	.7295	.7526	.7763	.8004	.8250	.8501	.8756	.9014	.9275	.9540	.9808	1.0077	1.0350	1.0625	1.0902	1.1180
	17/32	9/16	19/32	5/8	21/32	11/16	23/32	3/4	25/32	13/16	27/32	7/8	29/32	15/16	31/32	1
17/32	.7513	.7737	.7967	.8203	.8443	.8688	.8938	.9191	.9447	.9707	.9971	1.0236	1.0505	1.0775	1.1048	1.1323
9/16	.7737	.7955	.8179	.8408	.8643	.8883	.9127	.9375	.9627	.9882	1.0141	1.0402	1.0666	1.0933	1.1202	1.1473
19/32	.7967	.8179	.8397	.8620	.8850	.9084	.9323	.9566	.9813	1.0063	1.0317	1.0574	1.0834	1.1097	1.1362	1.1630
5/8	.8203	.8408	.8620	.8839	.9062	.9291	.9525	.9763	1.0005	1.0251	1.0500	1.0753	1.1009	1.1267	1.1529	1.1792
21/32	.8443	.8643	.8850	.9062	.9281	.9504	.9733	.9965	1.0203	1.0444	1.0689	1.0937	1.1189	1.1443	1.1701	1.1961
11/16	.8688	.8883	.9084	.9291	.9504	.9723	.9946	1.0174	1.0407	1.0643	1.0884	1.1128	1.1375	1.1625	1.1879	1.2135
23/32	.8938	.9127	.9323	.9525	.9733	.9946	1.0164	1.0388	1.0616	1.0848	1.1084	1.1324	1.1566	1.1813	1.2062	1.2315
3/4	.9191	.9375	.9566	.9763	.9965	1.0174	1.0388	1.0606	1.0829	1.1057	1.1289	1.1524	1.1763	1.2006	1.2251	1.2500
25/32	.9447	.9627	.9813	1.0005	1.0203	1.0407	1.0616	1.0829	1.1048	1.1271	1.1499	1.1730	1.1965	1.2203	1.2445	1.2690
13/16	.9707	.9882	1.0063	1.0251	1.0444	1.0643	1.0848	1.1057	1.1271	1.1490	1.1713	1.1941	1.2171	1.2406	1.2644	1.2884
27/32	.9971	1.0141	1.0317	1.0500	1.0689	1.0884	1.1084	1.1289	1.1499	1.1713	1.1932	1.2155	1.2382	1.2613	1.2847	1.3084
7/8	1.0236	1.0402	1.0574	1.0753	1.0937	1.1128	1.1324	1.1524	1.1730	1.1941	1.2155	1.2374	1.2597	1.2824	1.3054	1.3287
29/32	1.0505	1.0666	1.0834	1.1009	1.1189	1.1375	1.1566	1.1763	1.1965	1.2171	1.2382	1.2597	1.2816	1.3039	1.3265	1.3495
15/16	1.0775	1.0933	1.1097	1.1267	1.1443	1.1625	1.1813	1.2006	1.2203	1.2406	1.2613	1.2824	1.3039	1.3258	1.3481	1.3707
31/32	1.1048	1.1202	1.1362	1.1529	1.1701	1.1879	1.2062	1.2251	1.2445	1.2644	1.2847	1.3054	1.3265	1.3481	1.3700	1.3923
1	1.1323	1.1473	1.1630	1.1792	1.1961	1.2135	1.2315	1.2500	1.2690	1.2884	1.3084	1.3287	1.3495	1.3707	1.3923	1.4142

Note:
 For square sizes not shown, multiply square size x 1.414
 For rectangular sizes not shown:
 Rect = $\sqrt{x^2 + y^2}$

Whitney Ironworker, Portable Press & Beamline Tooling

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F.O.B. plant, Rockford, IL

Terms

Domestic: Net 30 Days

International: Via irrevocable Letter of Credit, confirmed by Advising Bank unless other terms are agreed to in writing prior to placing order.

Return Goods

No goods will be accepted for return without written authorization from the Return Goods Manager.

Note: See SF-318 for Terms and Conditions (Domestic)

Return Goods Policy

The following is W.A. Whitney Co.'s policy with respect to Return Goods other than those outlined in our standard warranty.

1. Restocking charges on return goods with an invoice value less than \$100.00 will be \$20.00.
2. Restocking charges on return goods with an invoice value greater than \$100.00 will be 20% of the invoice price.
3. No merchandise will be accepted for return without prior written authorization from the Return Goods Manager.
4. All returns are subject to our inspection upon receipt. Credit will not be allowed on damaged or used material.
5. All goods authorized for return are to be shipped prepaid to our plant. Collect shipments will be refused unless written authorization has been given prior to shipment. Items returned under warranty claim will be credited for transportation expense if due under warranty provision.
6. Non-standard punches and dies are non-cancellable and non-returnable.

Shipping

We will ship the best and most economical way; via mail, air, rail, motor freight, or UPS, unless specific shipping instructions accompany order. All shipments are F.O.B. our plant, Rockford, Illinois.

Claims for Shortages

All claims for shortages must be made within 10 days of date of invoice.

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