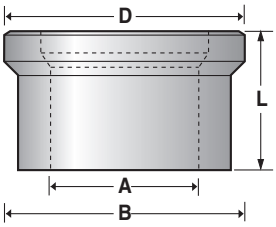
Tooling to Adapt Machines

The Cleveland Steel Tool Company can help you adapt your equipment. In cases where non-stock tooling is used, a reducing sleeve, die liner, hardened filler block or a reducing socket may permit you to buy standard punches and dies.

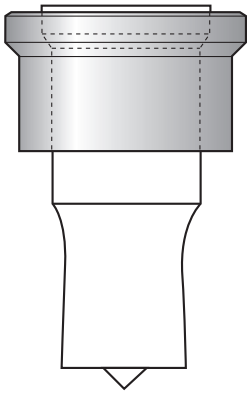
Reducing sleeves can be used in your coupling nut to accommodate a variety of different styles of punches. **NOTE: This can only be done on machines that provide for stroke adjustment or where the overall length of the punches used are the same. The hardened filler block can act as a spacer over the punch to adjust for non-standard punch lengths when necessary. Call the sales department for information on additional reducing sleeves available.**

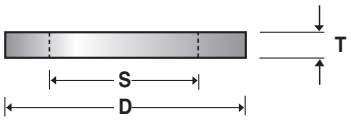
A reducing socket will fit into your existing die holder to enable you to use smaller die styles. A die liner acts as a spacer and will allow you to use dies of a shorter height.

No. 35-A
Filler Block

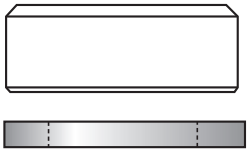


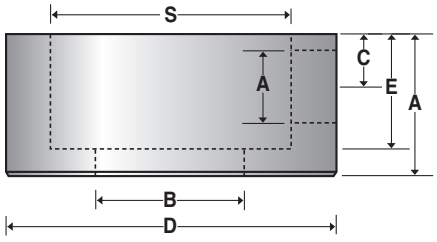
No. 34-A
Reducing Sleeve



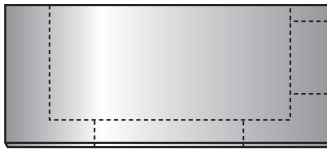


Die Liner



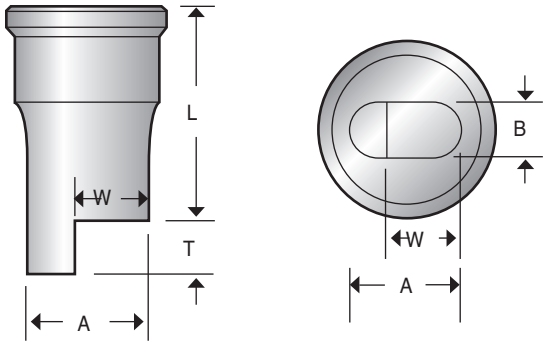


No. 34
Reducing Socket



Ripping Punch

The ripping punch is used to elongate existing holes or to notch material. The ripping punch is used with a standard oblong or rectangular matching die. Please specify style number of punch required. **Note: The guide (T) is 1/8" longer than the material thickness to allow for material clearance.**

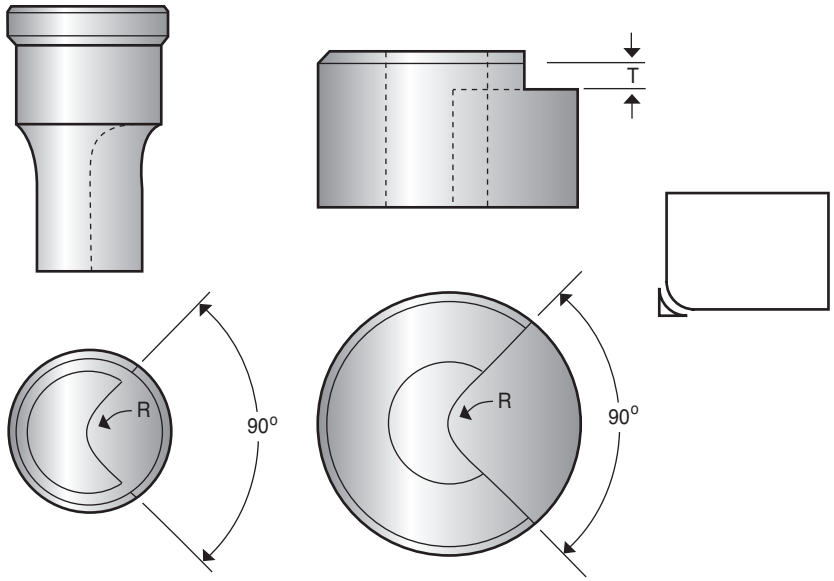


Corner Rounding Tooling

The corner rounding punch is used to round the corners on material up to 5/16" thick. The bottom die has a built in guide at at least 1/8" higher than material thickness. **Note: Indicate radius (R) and material thickness (T) when ordering.**

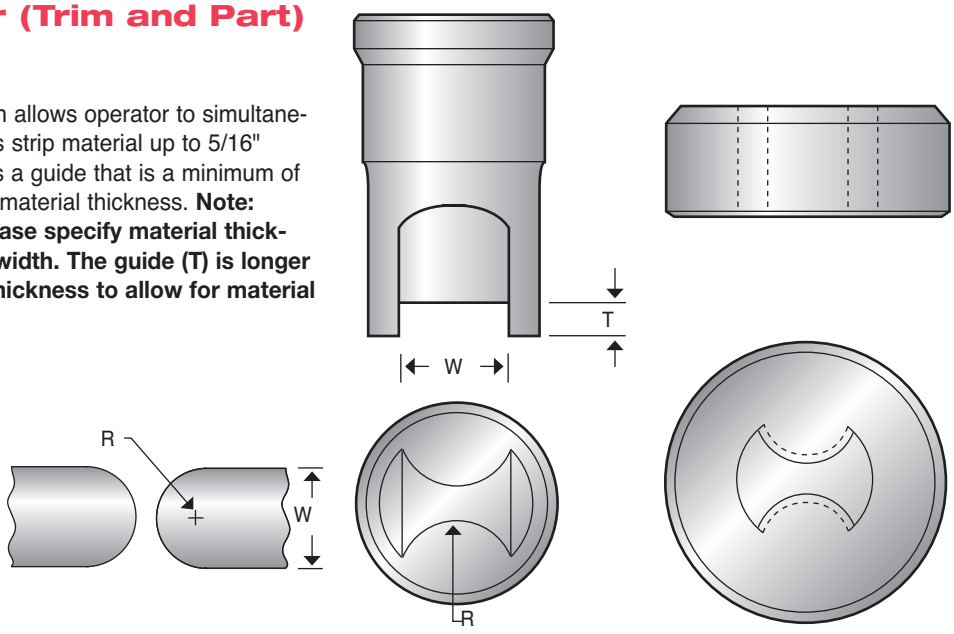
Stock Corner Rounding Tooling

RADII	PUNCH 219	220	221	228	DIE 413	417	419
3/8"	●	●	●		●	●	●
1/2"	●	●	●	●	●	●	●
5/8"	●	●	●	●	●	●	●
3/4"			●	●	●	●	●



Lattice Bar (Trim and Part) Tooling

The lattice bar punch allows operator to simultaneously trim and radius strip material up to 5/16" thick. The punch has a guide that is a minimum of 1/8" longer than the material thickness. **Note: When ordering, please specify material thickness and material width. The guide (T) is longer than the material thickness to allow for material clearance.**

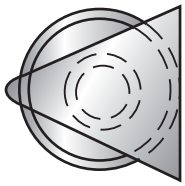


Picket Tooling

The picket punch is used to make pickets in ornamental iron. Available in 1/2" through 1" for thin gauge hollow wall square tubing only.

Stock Picket Tooling

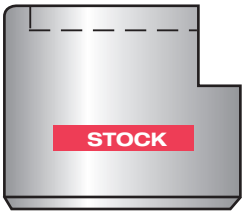
TUBING SIZE	PUNCH STYLE	DIE STYLE
5/8" to 3/4"	No. 219	No. 413
1"	No. 228	No. 419



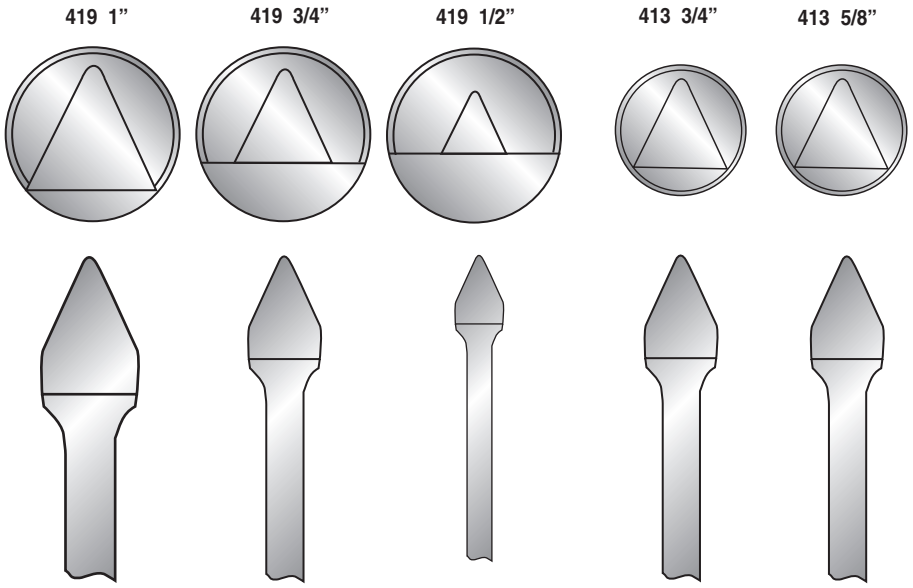
Assembled View

Holder

Picket Tip

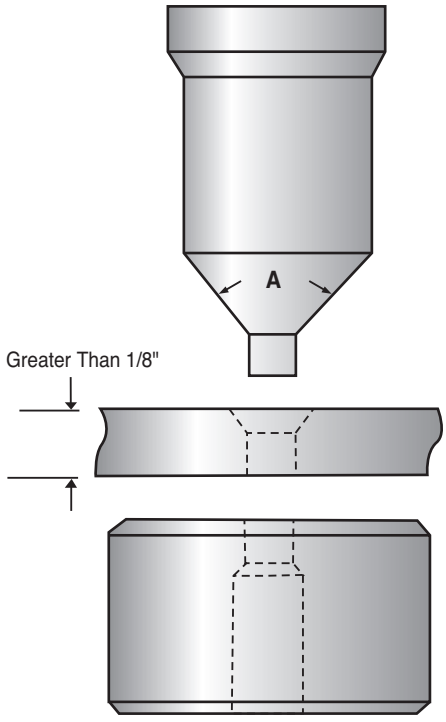


Picket Die Side View

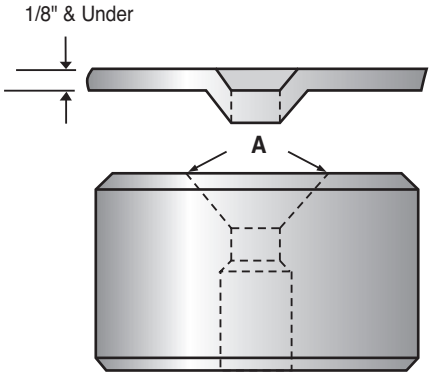


Countersink Tools

Countersink tooling produces a countersunk hole for flat head screws. Please indicate screw size, material thickness, punch and die style and type of countersink required.



Full Countersink

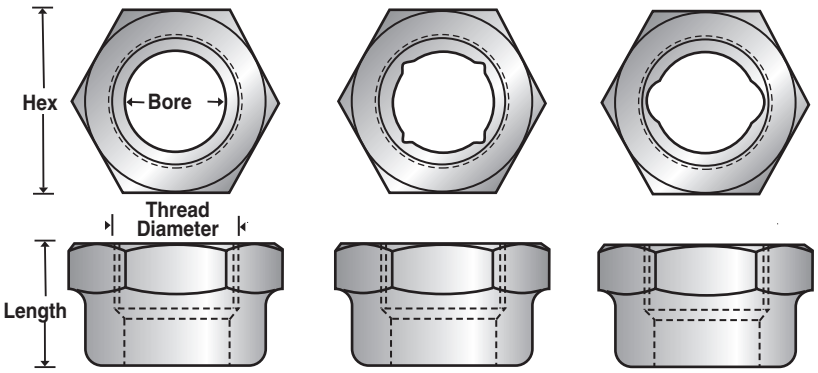


Countersink & Form

Standard Coupling Nuts

The critical dimensions required to identify a coupling nut are the thread diameter, threads per inch, bore and size of hex from flat to flat. Be sure you have accurately measured the outside diameter of the thread on your punch stem and determined the threads per inch, preferably with a thread gauge.

Coupling nuts are designed to be turned on the stem by hand and then tightened with a wrench or spanner wrench. Over-torquing may cause damage to the threads. Check periodically to ensure that the nut remains tight and the punch cannot move up and down, a major cause of punch breakage.



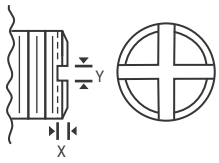
Coupling nuts may be modified for oversize shaped punches.

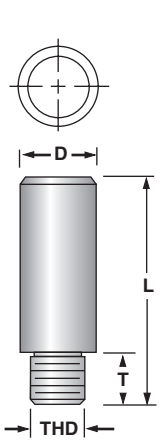
Stock sizes shown in gray bars.

COUP NUT #	THREADS DIA.	THREADS /INCH	HEX	LENGTH	BORE DIA.	TO HOLD PUNCH #
1	11/16	12	1-1/8	1	7/16	201, 202, 203
2	11/16	14	1-1/16	1-1/16	7/16	201, 202, 203
3	11/16	14	1-1/8	15/16	7/16	201, 202, 203
4	7/8	12	1-5/16	1-3/16	37/64	209
5	7/8	12	1-7/16	1-3/32	5/8	204, 205
6	7/8	12	1-7/16	1-3/8	5/8	204, 205
7	1-1/16	12	1-11/16	1-3/16	53/64	208, 210, 212
8	1-1/8	10	1-5/8	1-3/8	37/64	209
9	1-1/8	10	1-5/8	1-3/8	49/64	213, 215
10	1-1/8	10	1-5/8	1-5/16	27/32	212, 214
11	1-1/4	12	1-7/8	1-1/2	53/64	208, 210, 212
12	1-5/16	12	2	1-1/4	1-5/64	216, 217
13	1-3/8	10	2	1-5/8	1-5/64	218, 219, 220, 222
14	1-13/32	10	2	1-3/8	27/32	210, 212
15	1-13/32	10	2	1-3/8	1-5/64	218, 219, 220, 222
16	1-1/2	12	2-1/4	1-5/8	1-1/16	216, 217
17	1-9/16	12	2-1/4	1-1/2	1-17/64	221, 223
18	1-11/16	10	2-1/4	1-1/2	1-5/64	218, 219, 220, 222
19	1-11/16	10	2-1/4	1-1/2	1-11/32	224, 225, 226
20	1-13/16	12	2-1/2	1-7/8	1-17/64	221, 223
21	1-7/8	12	2-1/2	1-9/16	1-37/64	228, 229
22	2	10	2-5/8	1-3/4	1-5/64	218, 219, 220, 222
23	2	10	2-5/8	1-3/4	1-21/64	224, 225, 226
24	2	10	2-3/4	1-3/4	1-19/32	230, 231
25	2	10	2-3/4	1-3/4	1-11/32	224, 225
26	2	12	2-3/4	1-7/8	1-37/64	228, 229
27	2-1/4	12	3	1-11/16	1-13/16	234
28	2-1/4	12	3-1/8	2	1-3/4	235
29	2-5/16	10	3	1-3/4	1-27/32	234
30	2-5/8	10	3-1/2	2-1/8	1-37/64	228
31	2-5/8	10	3-1/2	2-1/8	2-5/64	233
32	2-5/8	10	3-1/2	1-3/4	2-3/32	233
33	2-3/4	12	3-3/4	2-1/4	2-1/4	236
34	2-3/4	12	3-3/4	1-13/16	2-5/16	237
35	3	10	4	1-3/4	2-19/32	
36	3	10	4	2-3/8	2-37/64	
37	3-1/4	8	4-1/4	2-1/32	2-11/16	238
38	3-1/4	12	4-1/4	2-1/2	2-5/8	
39	3-1/2	10	4-1/2	1-7/8	3-3/32	
40	3-7/8	8	5	2-5/32	3-5/16	239
41	3-7/8	10	5	2-3/4	3-5/16	239
42	4	10	5	1-15/16	3-19/32	
43	4-3/4	10	5-3/4	1-15/16	4-3/16	240
44	4-7/8	6	6	2-25/32	4-3/16	240

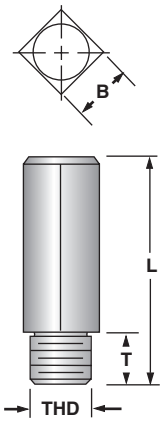
Punch Stems

Shown below are general styles of punch stems. Cleveland Steel Tool can provide a quote from a sketch, blueprint, or sample for punch stems not shown. Please provide dimensions of the punch stem needed. **Note: The use of two 90° keyways in the face of the threaded end of a punch stem is recommended to ensure proper alignment of shaped punches with matching dies. (See page 63 for more information on keyways).**

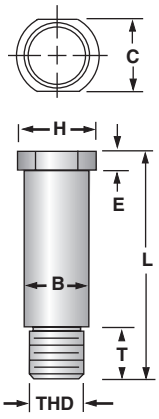




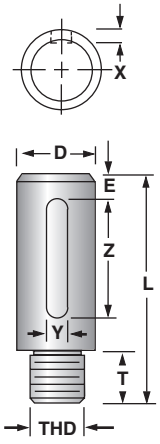
No. 24



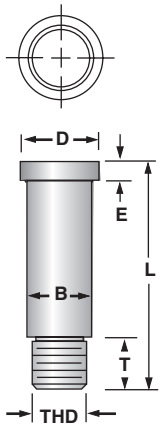
No. 24-A



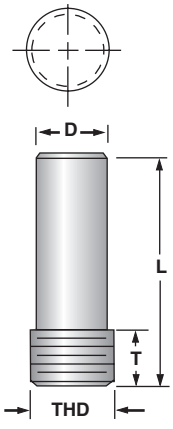
No. 24-B



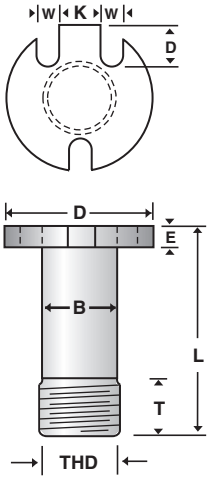
No. 24-C



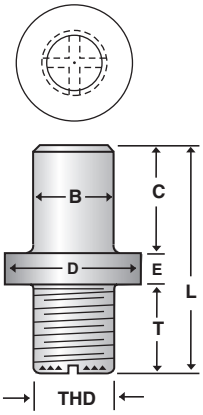
No. 24-D



No. 24-E



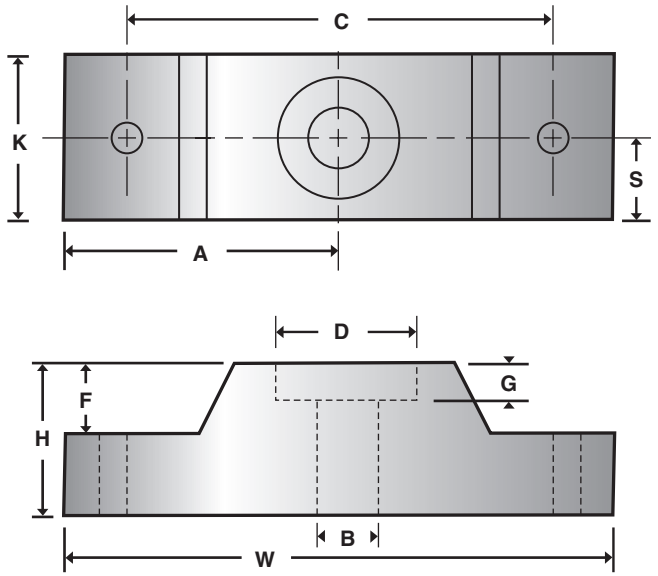
No. 24-F



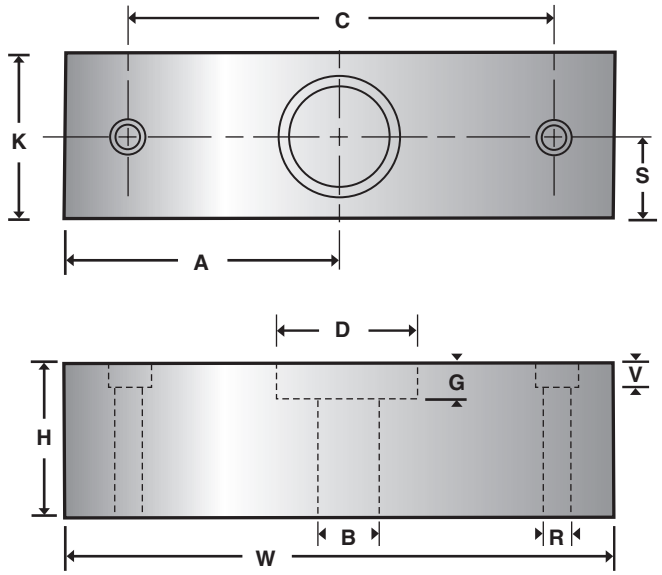
No. 24-G

Die Holders

Shown below are general designs of die holders. Special adapters can be supplied to pemit the use of standard punches and dies. See page 73 for additional information. Cleveland Steel Tool can provide a quote from a sketch, blueprint, or sample for die holders not shown.



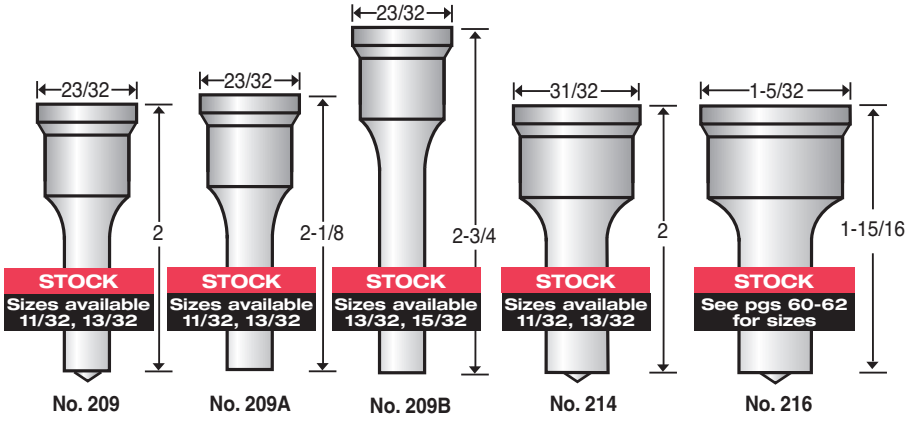
DH-1



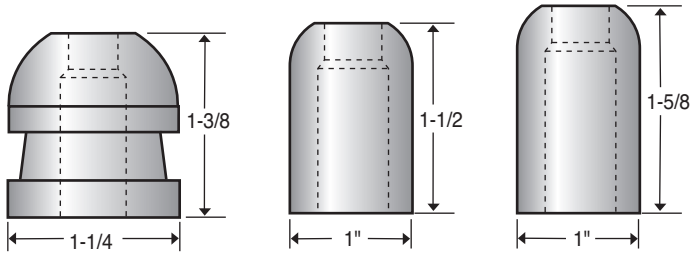
DH-2

Tooling for Metal Culvert Punching

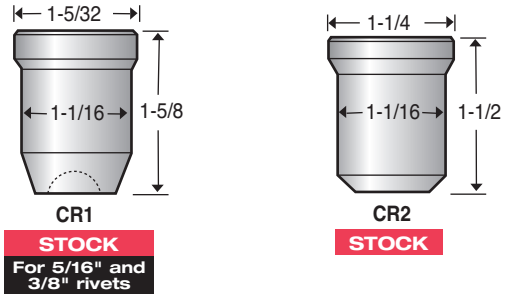
Standard Punches



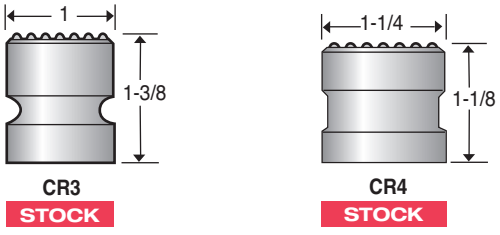
Standard Dies



Upper Rivet Blocks



Lower Rivet Blocks



Filler Blocks

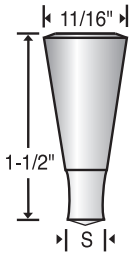
Available in thicknesses of 1/32, 1/16, 1/8 and 1/4"

Available in thicknesses of 1/32, 1/16, 1/8, 1/4 and 5/16"

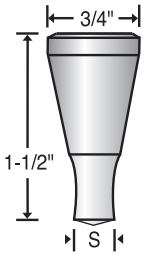
Tooling for Cold/Hot Punching Leaf Spring

Taper Shank Punches

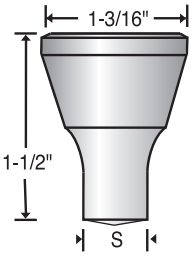
STOCK ROUND PUNCH SIZES		
9/32	1/2	25/32
5/16	17/32	13/16
11/32	17/32 HOT	27/32
11/32 HOT	9/16	7/8
3/8	19/32	29/32
13/32	5/8	15/16
13/32 HOT	21/32	31/32
7/16	11/16	1
15/32	23/32	1-1/32
15/32 HOT	3/4	



Stock sizes:
9/32 thru 15/32"

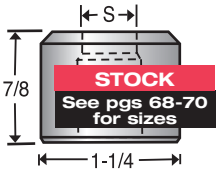


Stock sizes:
1/2 thru 19/32"

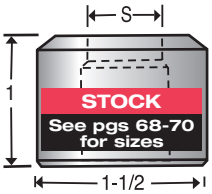


Stock sizes:
5/8 thru 1-1/32"

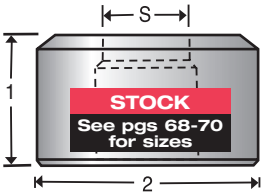
Standard Dies



No. 405



No. 408

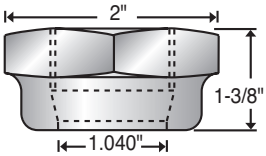


No. 417

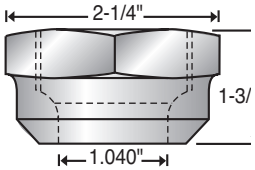
Reducing Sleeves

T-11/16 sleeve takes
11/16" head punch.
T-13/16 sleeve takes
3/4" head punch.

Coupling Nuts



No. 15
Taper Bore
Thread: 1-13/32" -10
STOCK

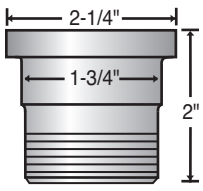


No. 55
Taper Bore
Thread: 1-9/16" -12
STOCK

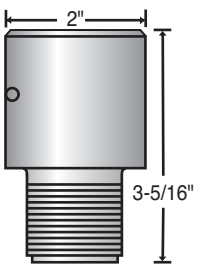
Tooling for Hendley & Whittemore

(Models 53, 54, 55)

Punch Stems

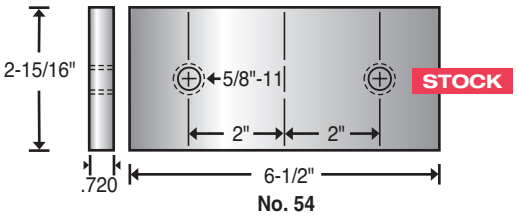


No. 55
Thread: 1-9/16" -12
STOCK

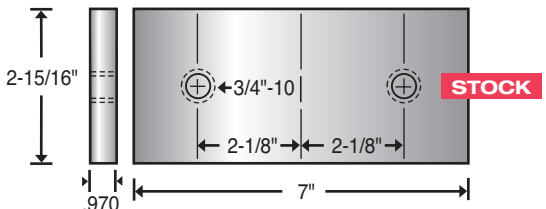


No. 54
Thread: 1-13/32" -10

Shear Blades



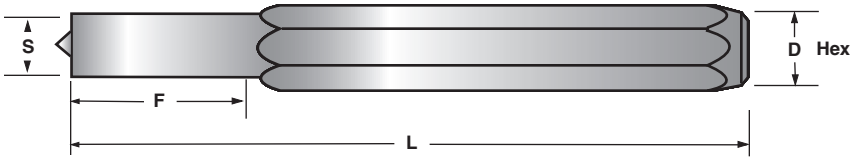
No. 54



No. 55

Hand Tools

Markers



No. 50-A

Center Punches

STOCK SIZE
5/8 hexagon, 6" long

No. 50-B

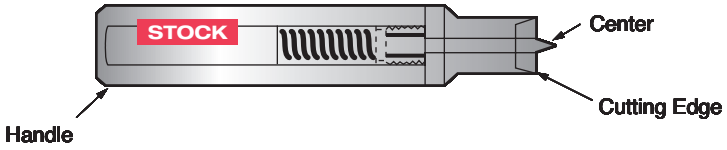
Template Punches

These paper template punches are designed with easily assembled components. One handle and a complete range of cutter sizes may be purchased. Available in special shapes and sizes.

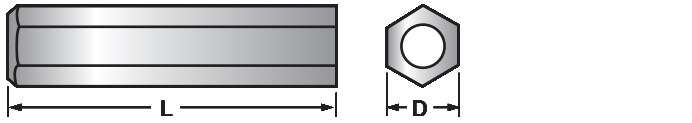
STOCK SIZES
7/16
9/16
11/16
13/16
15/16
1-1/16
1-3/16

NOTE: These punches are not recommended for punching steel.

Assembled Template Punch

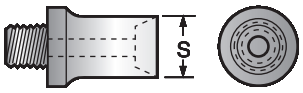


Disassembled Template Punch



No. 57-A Handle

No. 57-B Spring



No. 57-D Cutter

No. 57-C Center