



CE TOOLING SOURCE CATALOG

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SHEAR BLADES



***CE TOOLING, Manufacturer & Distributor
of Fab Tools and Accessories***

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*This catalog is full of useful and helpful information.
However, it cannot replace the **personal**
exchange of information. Therefore, if you have
questions, we encourage you to contact us at:*

702 736-2958 Fax: 702 736-3030
sales@cetooling.com

Visit us on the web at:
www.cetooling.com

INFORMATION: DIE CLEARANCES & TONNAGE

TYPICAL DIE CLEARANCES FOR MILD STEEL

PUNCH SIZE	MATERIAL THICKNESS							
	1/8	1/4	3/8	1/2	5/8	3/4	7/8	1"
3/16	13/64							
1/4	17/64							
5/16	21/64	11/32						
3/8	25/64	13/32						
7/16	29/64	15/32	15/32					
1/2	33/64	17/32	17/32					
9/16	37/64	19/32	19/32	5/8				
5/8	41/64	21/32	21/32	11/16				
11/16	45/64	23/32	23/32	3/4	3/4			
3/4	49/64	25/32	25/32	13/16	13/16			
13/16	53/64	27/32	27/32	7/8	7/8	7/8		
7/8	57/64	29/32	29/32	15/16	15/16	15/16		
15/16	61/64	31/32	31/32	1"	1"	1"	1-1/32	
1"	1-1/64	1-1/32	1-1/32	1-1/16	1-1/16	1-1/16	1-3/32	1-3/32
1-1/16	1-5/64	1-3/32	1-3/32	1-1/8	1-1/8	1-1/8	1-5/32	1-5/32
1-1/8	1-9/64	1-5/32	1-5/32	1-3/16	1-3/16	1-3/16	1-7/32	1-7/32
1-3/16	1-13/64	1-7/32	1-7/32	1-1/4	1-1/4	1-1/4	1-9/32	1-9/32
1-1/4	1-17/64	1-9/32	1-9/32	1-5/16	1-5/16	1-5/16	1-11/32	1-11/32
1-5/16	1-21/64	1-11/32	1-11/32	1-3/8	1-3/8	1-3/8	1-13/32	1-13/32
1-3/8	1-25/64	1-13/32	1-13/32	1-7/16	1-7/16	1-7/16	1-15/32	1-15/32
1-7/16	1-29/64	1-15/32	1-15/32	1-1/2	1-1/2	1-1/2	1-17/32	1-17/32
1-1/2	1-33/64	1-17/32	1-17/32	1-9/16	1-9/16	1-9/16	1-19/32	1-19/32

THIS CHART IS FOR REFERENCE ONLY
Check with machine manufacturer for specific applications.

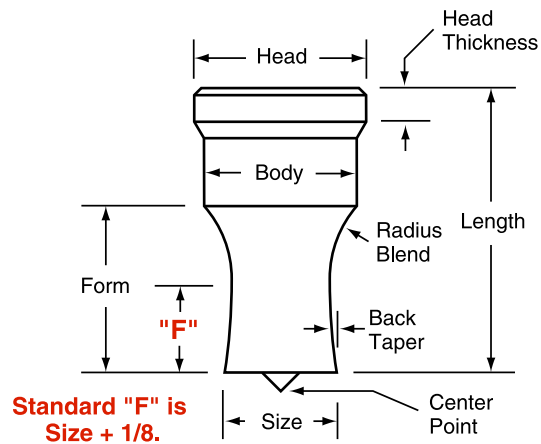
REFERENCE TONNAGE CHART

MATERIAL THICKNESS		PUNCH SIZE															
		3/16	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"	1-1/8	1-1/4
3/16	.187	3	4	5	6	7	8	9	9	10	11	12	13	14	15	17	19
1/4	.250		5	6	8	9	10	11	13	14	15	16	18	19	20	23	25
3/8	.375				11	13	15	17	19	21	23	24	26	28	30	33	38
1/2	.500						20	23	25	28	30	33	35	38	40	45	50
5/8	.625								31	34	38	41	44	47	50	56	63
3/4	.750										45	49	53	56	60	68	75
7/8	.875												61	66	70	78	88
1"	1.000														80	90	100

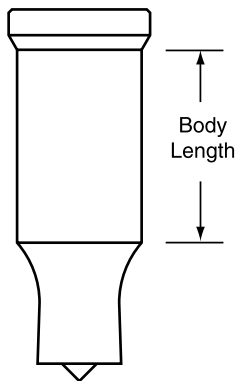
This chart provides the required tonnage to punch a hole through mild steel with a tensile strength of **50,000 psi**. There are many variables that affect the punching process, including required tonnage. Therefore, this chart is an approximation and is to be used as a guide only.

For specific machine capacities, please refer to your machine manual.

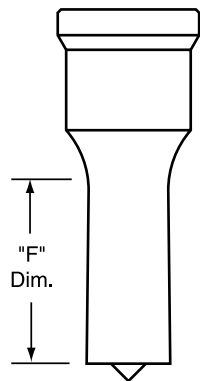
PUNCHES & DIES OPTIONS



EXTRA LENGTH PUNCHES

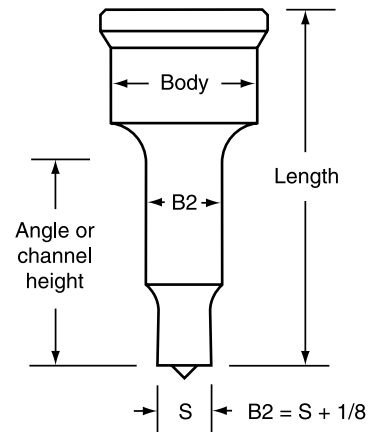


Added length to body

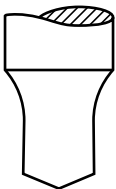


Added length to "F" or the working length

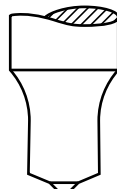
DOUBLE BODY FOR PUNCHING LEG UP



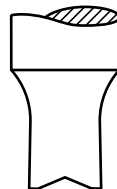
SHEAR FACE



V-Shear



V-Shear with Center Point

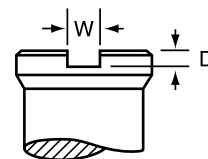


Y-Shear

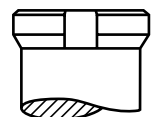
KEYWAYS



"V" Groove Round Key Stock

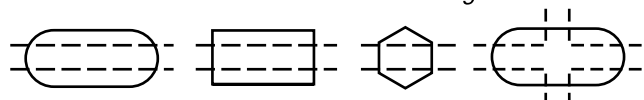


Standard



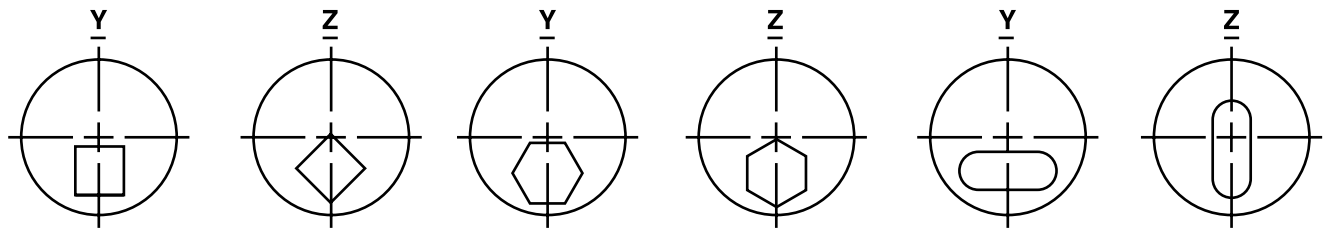
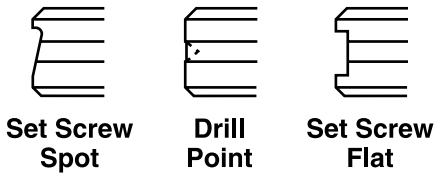
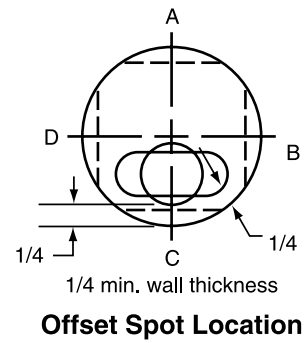
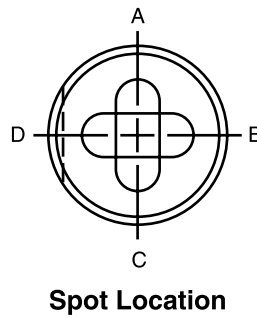
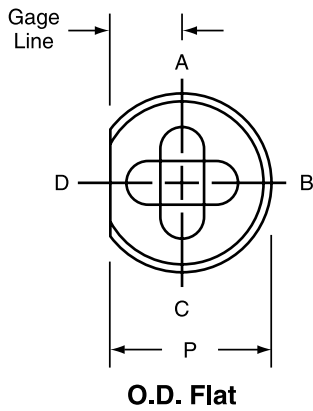
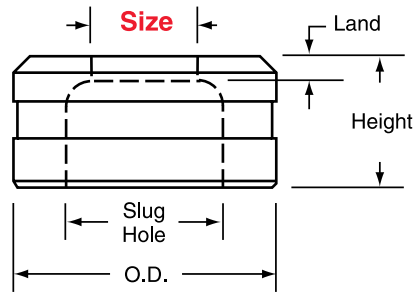
Side Head

Keyways are standard for some machines. Please advise machine make when ordering.

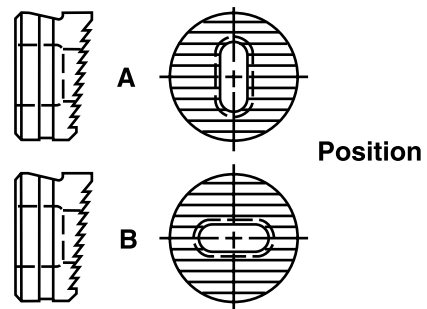
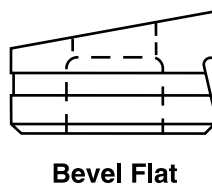
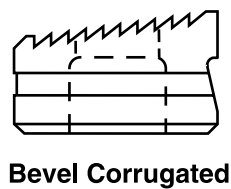


Standard Keyway Position

PUNCHES & DIES OPTIONS

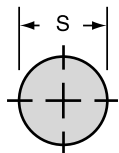


Offset Position ("Y" Standard Position)

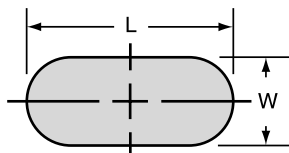


Position

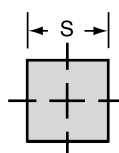
STANDARD SHAPES



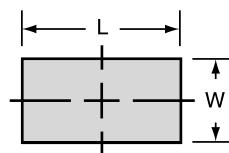
Round



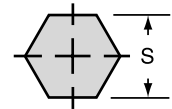
Oblong



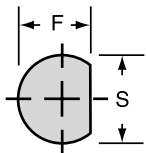
Square



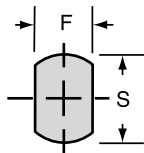
Rectangle



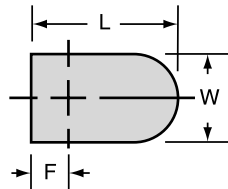
Hex



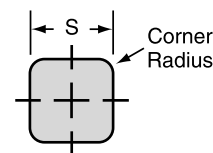
Flatted Round



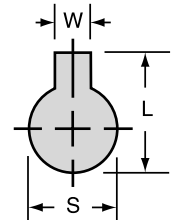
Double Flatted Round



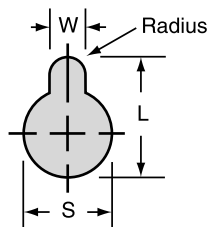
Flatted Oblong



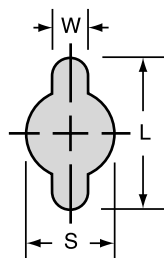
**Square
Radius Corners**



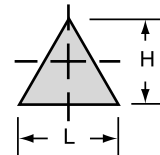
Keyhole Style - A



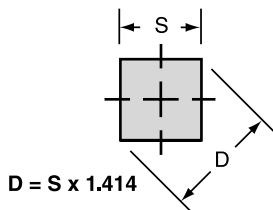
Keyhole Style - B



Keyhole Style - D

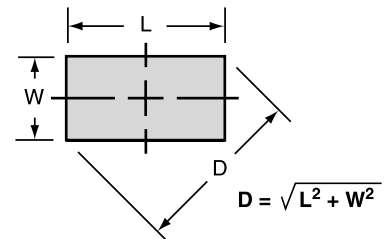


Triangle



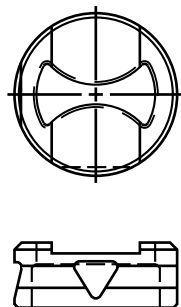
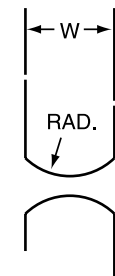
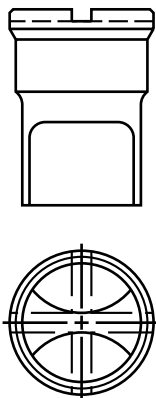
$$D = S \times 1.414$$

Squares and rectangles "D" dimension is larger than the "S" dimension of the square and larger than the "L" dimension of the rectangle. The "D" dimension must not exceed the body diameter of the punch or the bore diameter of the coupling nut. Check with your salesperson for possible modifications to accommodate oversize tools.

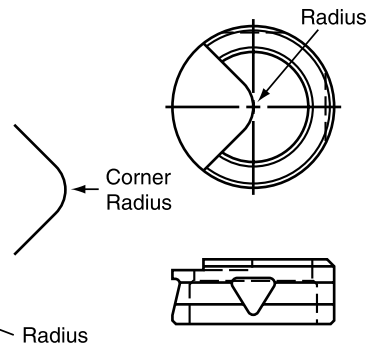
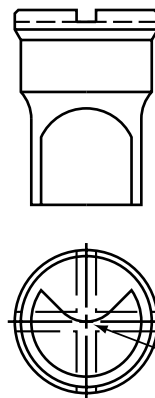


$$D = \sqrt{L^2 + W^2}$$

SPECIAL PURPOSE



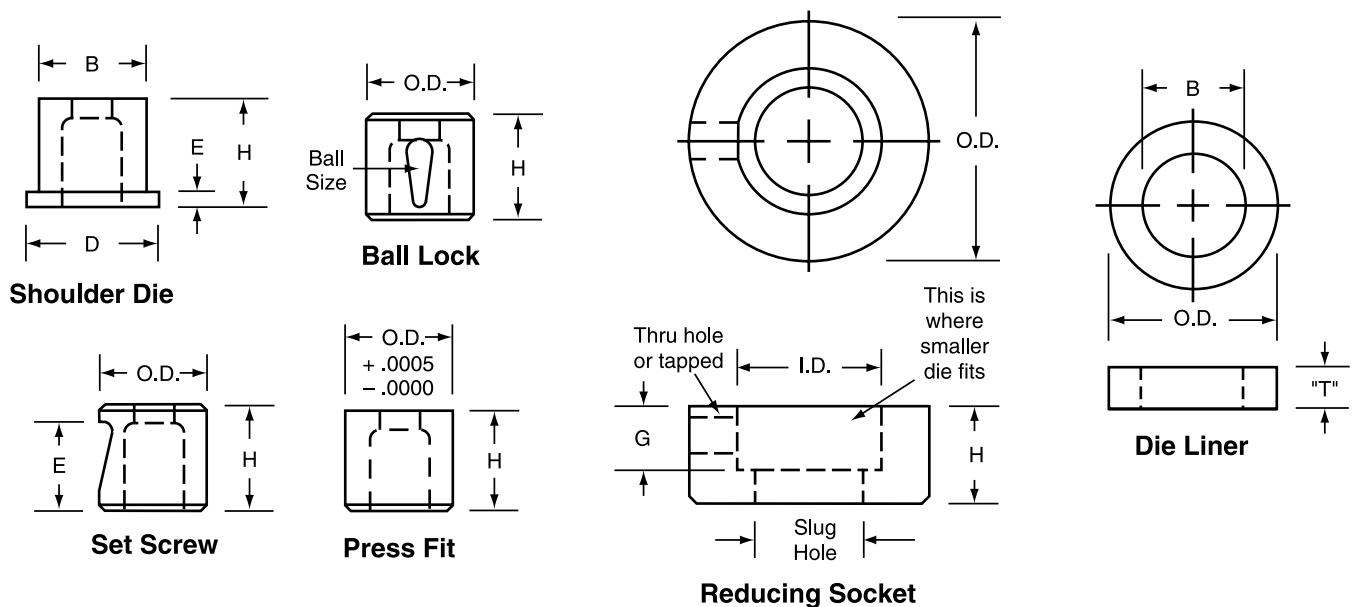
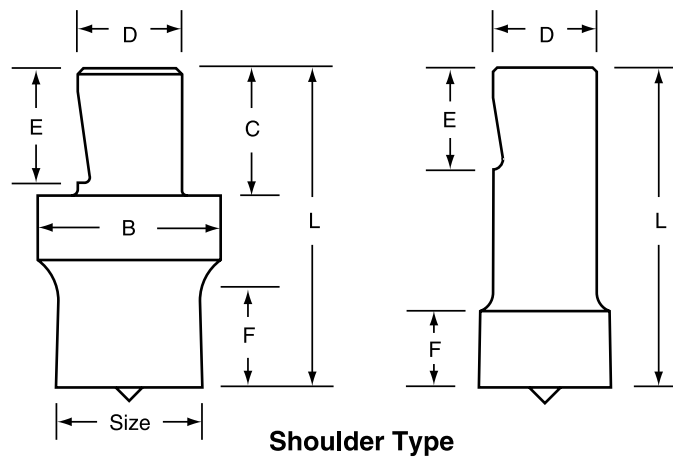
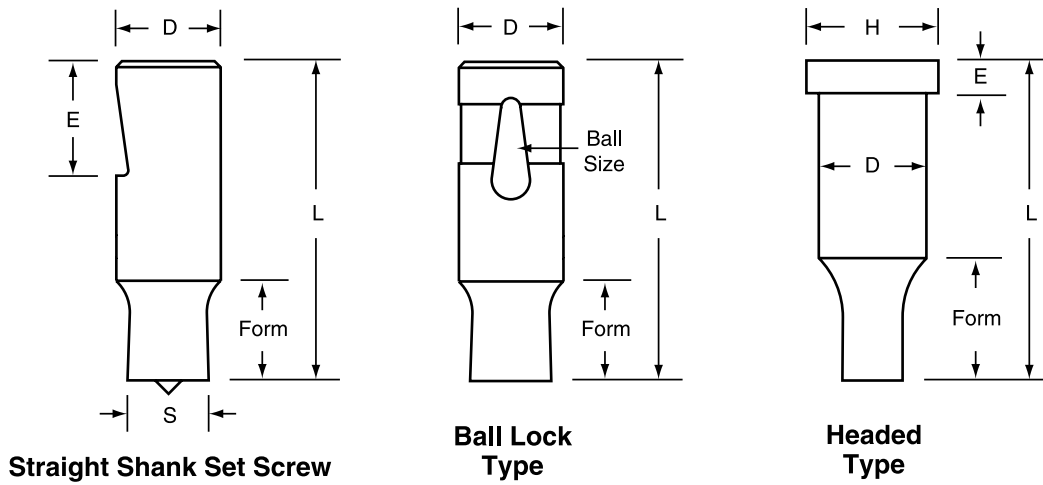
Lattice Bar



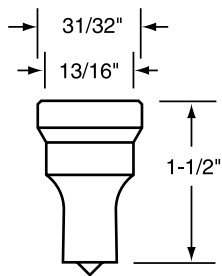
Corner Rounding

Lattice bar or corner rounding can be designed to any style punch and die. The radius required is the determining dimension for punch size and style.

ADDITIONAL PUNCHES & DIES STYLES

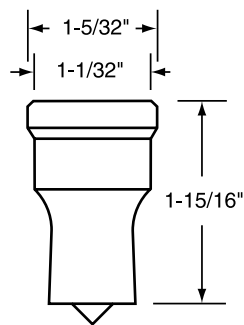


IRONWORKER PUNCHES & DIES

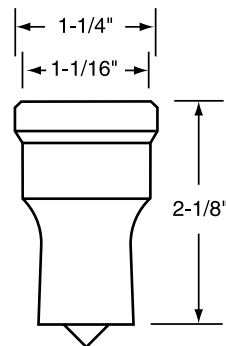


112 STOCK

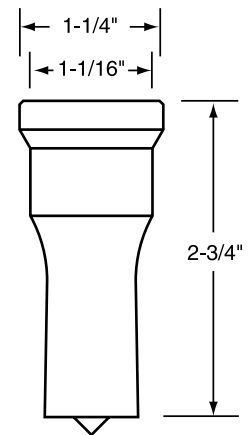
*For stock sizes,
see page 40.*



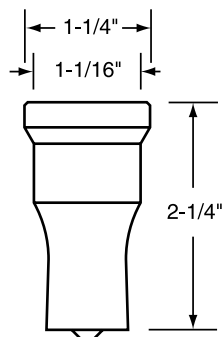
116 STOCK



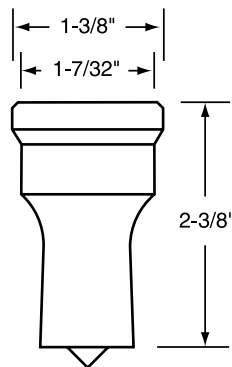
119 STOCK



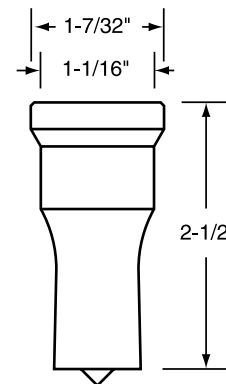
119L STOCK



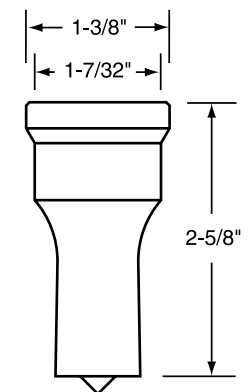
120 EXPRESS



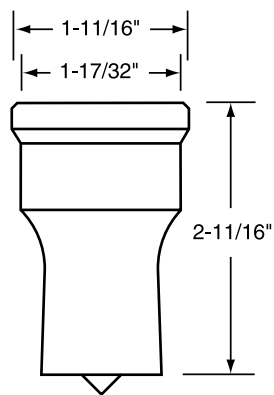
121 STOCK



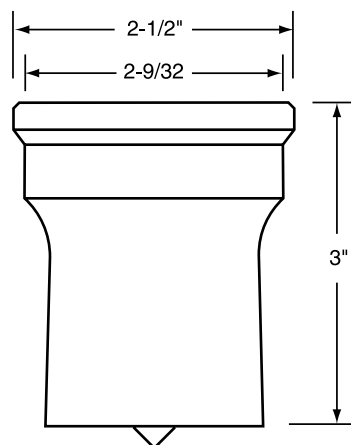
122 EXPRESS



123 EXPRESS



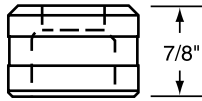
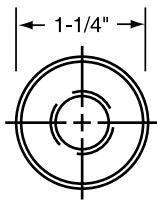
128 STOCK



137 EXPRESS

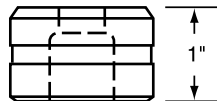
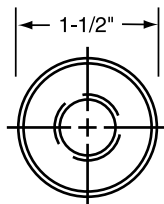
Express items will ship in 1 to 2 days.

IRONWORKER PUNCHES & DIES

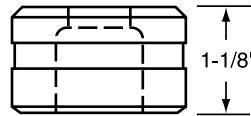
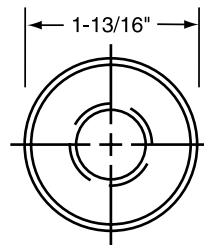


305 STOCK

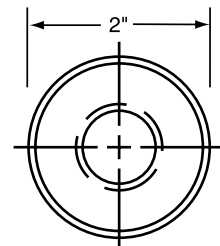
For stock sizes,
see page 40.



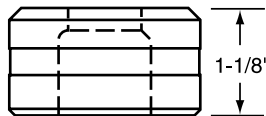
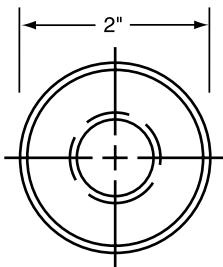
308 STOCK



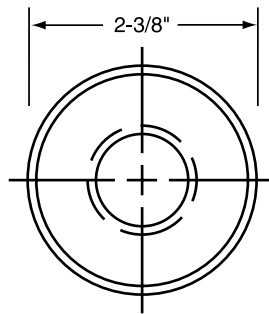
313 STOCK



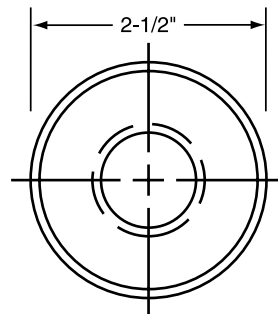
317 STOCK



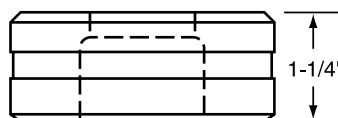
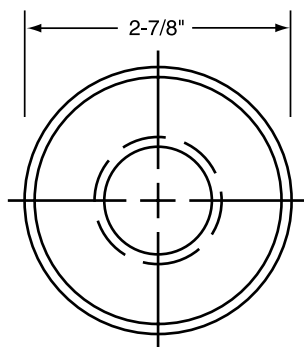
318 STOCK



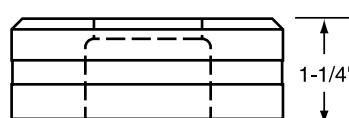
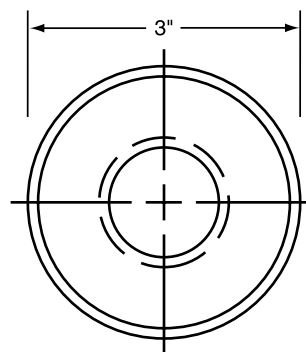
319 STOCK



320 EXPRESS



321 EXPRESS



322 EXPRESS

STOCK PUNCHES & DIES

ROUND STOCK PUNCHES

	116	119	119L	119M	121	128
3/16		X			X	X
7/32		X			X	X
1/4	X	X		X	X	X
9/32		X			X	X
5/16	X	X	X	X	X	X
11/32		X			X	X
3/8	X	X		X	X	X
13/32		X		X	X	X
7/16	X	X	X	X	X	X
15/32		X			X	X
1/2	X	X		X	X	X
17/32		X		X	X	X
9/16	X	X	X	X	X	X
19/32		X			X	X
5/8	X	X		X	X	X
21/32		X		X	X	X
11/16	X	X	X	X	X	X
23/32		X			X	X
3/4	X	X		X	X	X
25/32		X			X	X
13/16	X	X	X	X	X	X
27/32					X	X
7/8	X	X		X	X	X
29/32					X	X
15/16	X	X	X	X	X	X
31/32		X			X	X
1	X	X		X	X	X
1-1/32		X			X	X
1-1/16		X	X	X	X	X
1-3/32						
1-1/8					X	X
1-5/32						
1-3/16					X	X
1-7/32						
1-1/4					X	X
1-9/32						
1-5/16					X	X
1-11/32						
1-3/8						X
1-13/32						
1-7/16						X
1-1/2						X
1-17/32						
1-9/16						X

ROUND STOCK DIES

	308	313	317	319
7/32	X	X	X	X
1/4	X	X	X	X
9/32	X	X	X	X
5/16		X	X	X
11/32	X	X	X	X
3/8	X	X	X	X
13/32		X	X	X
7/16	X	X	X	X
15/32	X	X	X	X
1/2	X	X	X	X
17/32	X	X	X	X
9/16	X	X	X	X
19/32	X	X	X	X
5/8	X	X	X	X
21/32	X	X	X	X
11/16	X	X	X	X
23/32	X	X	X	X
3/4	X	X	X	X
25/32		X	X	X
13/16	X	X	X	X
27/32	X	X	X	X
7/8	X	X	X	X
29/32		X	X	X
15/16	X	X	X	X
31/32		X	X	X
1	X	X	X	X
1-1/32		X	X	X
1-1/16		X	X	X
1-3/32		X	X	X
1-1/8		X	X	X
1-5/32		X	X	X
1-3/16		X	X	X
1-7/32			X	X
1-1/4		X	X	X
1-9/32		X	X	X
1-5/16			X	X
1-11/32			X	X
1-3/8			X	X
1-13/32				X
1-7/16				X
1-1/2				X
1-17/32				X
1-9/16				X
1-5/8				X

STOCK PUNCHES & DIES

OBLONG STOCK PUNCHES

	119	121	128
5/16 X 1	X	X	X
5/16 X 1-1/4		X	X
7/16 X 1	X	X	X
7/16 X 1-1/4		X	X
9/16 X 1	X	X	X
9/16 X 1-1/4		X	X
9/16 X 1-1/2			X
11/16 X 1	X	X	X
11/16 X 1-1/4		X	X
11/16 X 1-1/2			X
13/16 X 1	X	X	X
13/16 X 1-1/4		X	X
13/16 X 1-1/2			X
7/8 X 1-1/4			X
7/8 X 1-1/2			X
15/16 X 1-1/4		X	X
15/16 X 1-1/2			X
1 X 1-1/4		X	X
1 X 1-1/2			X
1-1/16 X 1-1/2			X

OBLONG STOCK DIES

	313	317	319
11/32 X 1-1/32	X	X	X
11/32 X 1-9/32		X	X
15/32 X 1-1/32	X	X	X
15/32 X 1-9/32		X	X
19/32 X 1-1/32	X	X	X
19/32 X 1-9/32		X	X

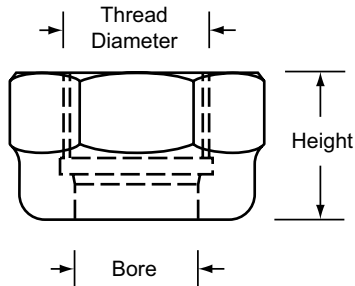
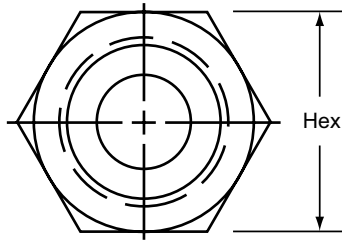
OBLONG STOCK DIES

	313	317	319
19/32 X 1-17/32			X
5/8 X 1-1/16	X	X	X
5/8 X 1-5/16		X	X
5/8 X 1-9/16			X
23/32 X 1-1/32	X	X	X
23/32 X 1-9/32		X	X
23/32 X 1-17/32			X
3/4 X 1-1/16	X	X	X
3/4 X 1-5/16		X	X
3/4 X 1-9/16			X
27/32 X 1-1/32	X	X	X
27/32 X 1-9/32		X	X
27/32 X 1-17/32			X
7/8 X 1-1/16	X	X	X
7/8 X 1-5/16		X	X
7/8 X 1-9/16			X
29/32 X 1-9/32			X
29/32 X 1-17/32			X
15/16 X 1-5/16			X
15/16 X 1-9/16			X
31/32 X 1-9/32		X	X
31/32 X 1-17/32			X
1 X 1-5/16		X	X
1 X 1-9/16			X
1-1/32 X 1-9/32		X	X
1-1/32 X 1-17/32			X
1-1/16 X 1-5/16		X	X
1-1/16 X 1-9/16			X
1-3/32 X 1-17/32			X
1-1/8 X 1-9/16			X

No keyways in stock oblong punches, 2 set screw spots standard on all oblong dies.

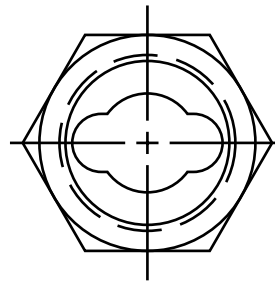
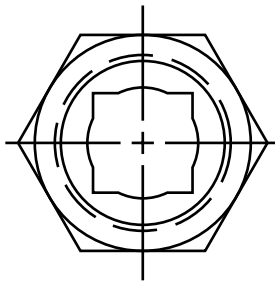
**NOTE: ANY SIZE OR STYLE NOT LISTED
CAN BE SHIPPED IN 1 TO 2 DAYS**

PUNCH STEMPs & COUPLING NUTS

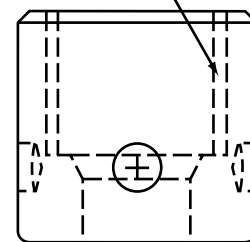
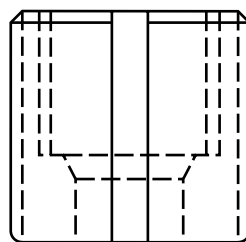
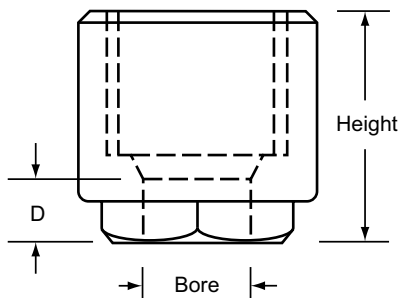
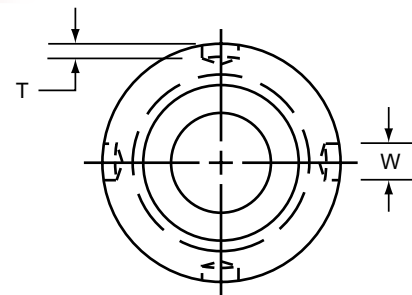
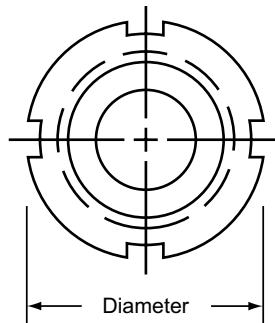
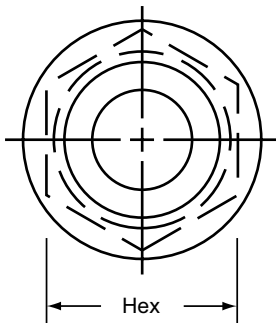


No.	Thread	Hex	Height	Bore
A2C	11/16 – 14	1-1/16	1-1/16	7/16
A4C	7/8 – 12	1-5/16	1-3/16	37/64
A7C	1-1/16 – 12	1-11/16	1-3/16	53/64
A8C	1-1/8 – 10	1-5/8	1-3/8	37/64
A9C	1-1/8 – 10	1-5/8	1-3/8	49/64
A12C	1-5/16 – 12	2	1-1/4	1-5/64
A13C	1-3/8 – 10	2	1-5/8	1-5/64
A15C	1-13/32 – 10	2	1-3/8	1-5/64
A17C	1-9/16 – 12	2-1/4	1-1/2	1-17/64
A18C	1-11/16 – 10	2-1/4	1-1/2	1-5/64
A21C	1-7/8 – 12	2-1/2	1-9/16	1-37/64
A22C	2 – 10	2-5/8	1-3/4	1-5/64

Coupling nuts can be modified to fit oversize punches. The size is limited to I.D. thread diameter.



CLOSE CENTER COUPLING NUTS

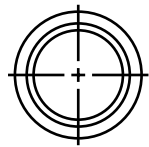
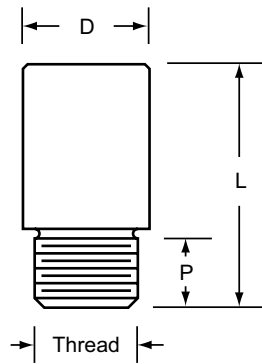


C23A

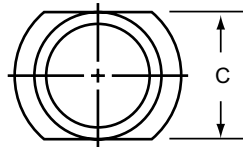
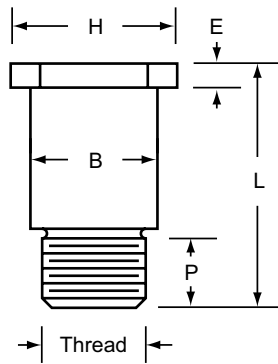
C23B

C23C

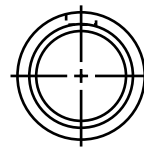
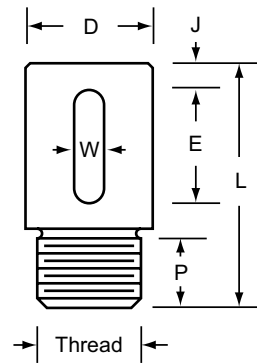
PUNCH STEMPs & COUPLING NUTS



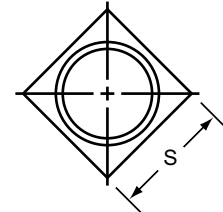
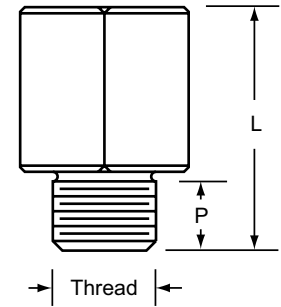
PS10



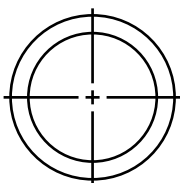
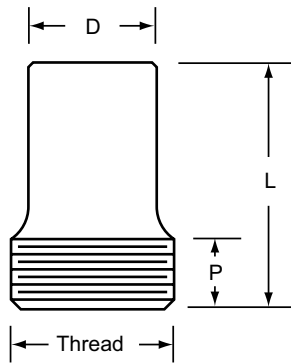
PS11



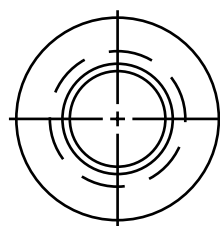
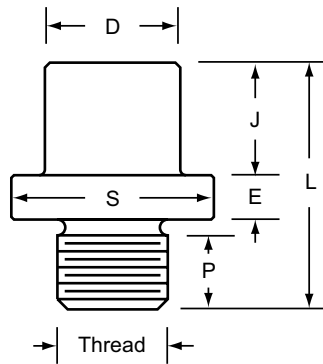
PS12



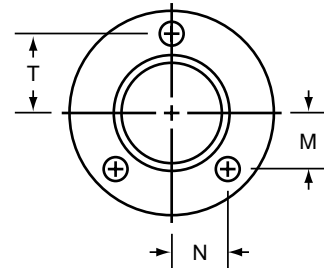
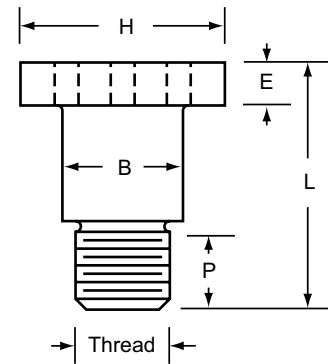
PS13



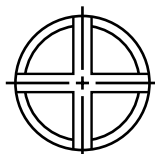
PS14



PS15



PS16



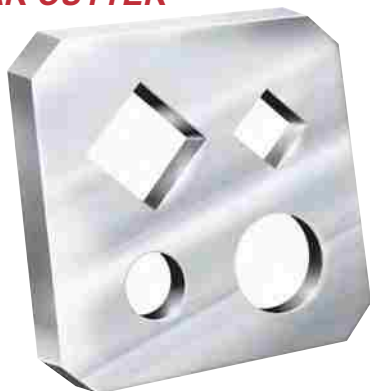
Adding keyways to the face of the stem will aid in alignment and increase tool life.

STOCK SHEAR BLADES DIES

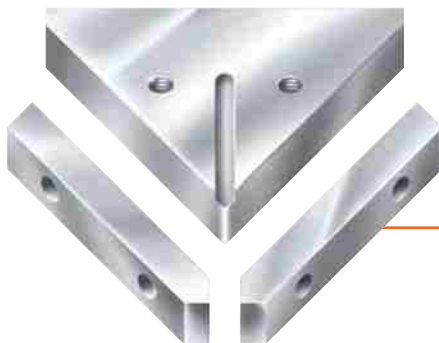
Am Pch Part #	Manufacturer Part #	Description
CONTROLLED AUTOMATION™		
APS-2055	DCS346	Upper Angle Blade
APS-2063	DCS347	Lower Left Angle Blade
APS-2064	DCS348	Lower Right Angle Blade
APS-4185	PAL-229	Upper Angle Blade
APS-4184	PAL-227 & 228	Lower Right/Left Angle Blade
FICEP™		
APS-8237	A30387	Upper Angle Blade, 1 req. per set
APS-8238	A30388	Lower Rt. & Left Insert Blade, 1 ea. req.
APS-8220	A30417	Flat Bar Blade
APS-9162	A30545	Upper Angle Blade
APS-9184	A30541E	Lower Angle Blade
GEKA™		
APS-3765	1-46A	24" (L) Curved Upper Flat Bar
APS-7137	1-46	24" (L) Lower Str. Flat Bar
APS-2798	1-46A	18" (L) Curved Upper Flat Bar
APS-2799	1-46	18" (L) Lower Str. Flat Bar
APS-5305	1-46A	12" (L) Curved Upper Flat Bar
APS-5304	1-46	12" (L) Lower Str. Flat Bar
APS-7236	HYD55-15-5	Upper Angle Blade
APS-7752	HYD100-15-5	Upper Angle Blade
APS-7561	HYD110-15-5	Upper Angle Blade
APS-7240	HYD165-15-5	Upper Angle Blade
APS-8628	HYD80-15-5	Upper Angle Blade
APS-7568	HYD110/100/80-15-5	Lower Long Blade
APS-7567	HYD110/100/80-15-4	Lower Short Blade
PEDDINGHAUS™		
APS-275	YC-17501-504-000-4	Upper Angle Blade, 1 req. per set
APS-276	YD-3750232	Lower Rt. Insert Blade, 2 req. per set
APS-277	YD-3750237	Lower Left Insert Blade, 2 req. per set
APS-2660	YB-185750000006	Flat Bar Blade
APS-2661	YB-176460000010	Angle Blade 4 different Rad.
APS-2525	YC-176460000011	Short Lower (threaded)
APS-2526	YC-176460000012	Long Lower (threaded)
APS-3768	YC-176530000008	Short Lower (SHCS)
APS-3769	YC-176530000009	Long Lower (SHCS)
PIRANHA™		
APS-4327	0230251	14-5/8" (L) X 1-1/2" (W) X 3/4" (T)
APS-3153	0240250	16-5/8" (L) X 2" (W) X 1" (T)
APS-4328	0240251	20-1/2" (L) X 2" (W) X 1" (T)
APS-7502	0250250	14-5/8" (L) X 2" (W) X 1" (T)
APS-6272	02302501	12-1/8" (L) X 1-1/2" (W) X 3/4" (T)
APS-6273	0230250	11-1/4" (L) X 1-1/2" (W) X 3/4" (T)
APS-8723	0276252	20-5/8" (L) X 1-1/2" (W) 3/4" (T)
APS-6274	0230273	Upper Angle Blade
APS-8773	0276274	Lower Angle Blades
APS-7345	0230277	P50/65/88 Coper Punch
APS-7346	0230276	P50/65/88 Coper Die
SCOTCHMAN™		
APS-7120	080031	24-7/8" (L) X 2" (W) X 1/2" (T)
APS-7155	080257	12-1/2" (L) X 2" (W) X 1/2" (T)
APS-7119	422033	14-1/16" (L) X 2" (W) X 1/2" (T)
VOORTMAN™		
APS-8809	V6070002	Upper Flat Bar
APS-8810	V6070001	Lower Flat Bar
APS-8843	V6080006	Upper Angle Blade, 1 req. per set
APS-8844	V6080005	Lower Rt. & Left Insert Blade, 1 ea. req.
WHITNEY™		
APS-300	609-004	Upper Angle Blade, 1 req. per set
APS-301	609-039	Lower Left Insert Blade, 2 req.
APS-302	609-040	Lower Rt. Insert Blade, 2 req..

COPERS NOTCHER BAR CUTTERS & SHEAR BLADES

BAR CUTTER



NOTCHER PUNCH



NOTCHER DIES

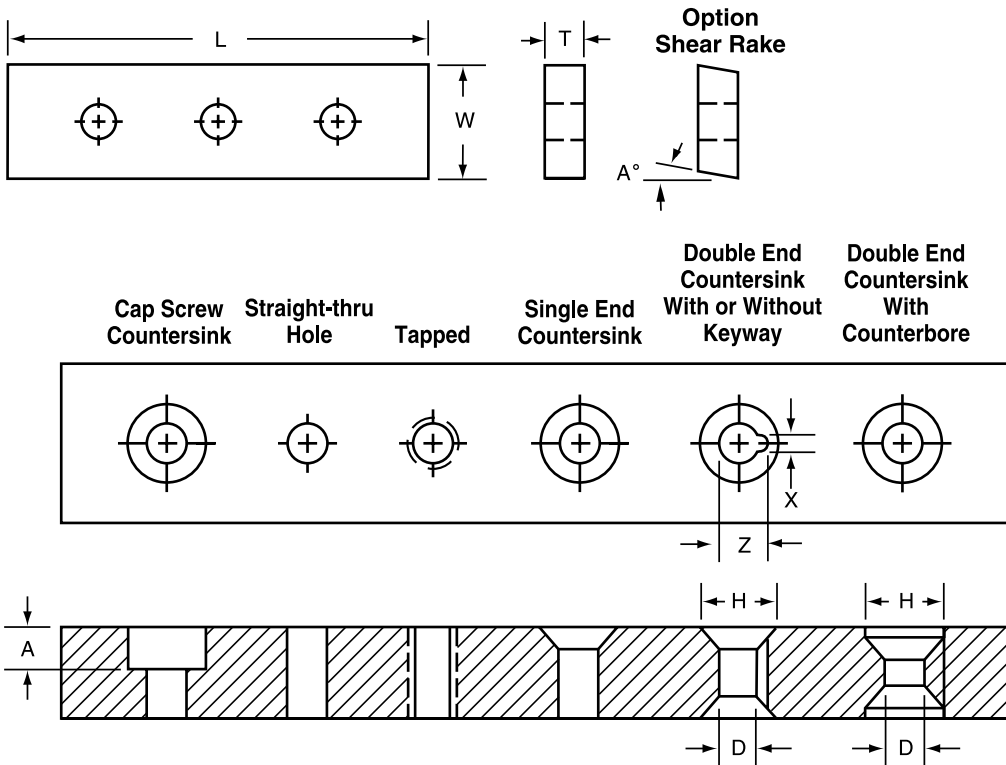
ANGLE BLADES



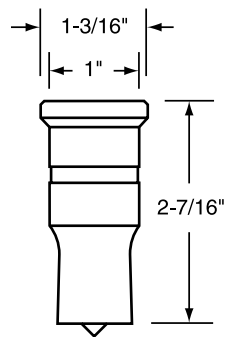
COPER PUNCH



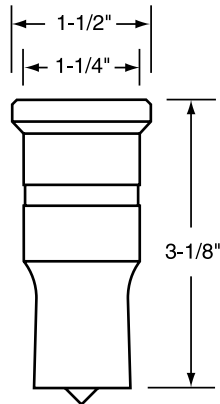
COPER DIES



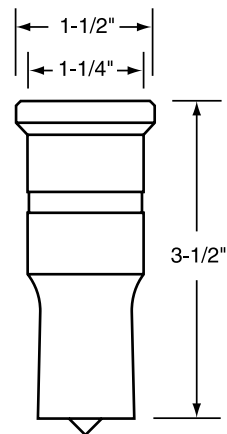
ANGLELINE BEAMLINE & DUPLICATORS



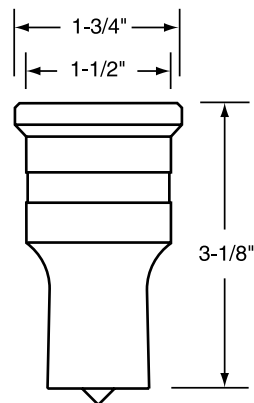
163 STOCK



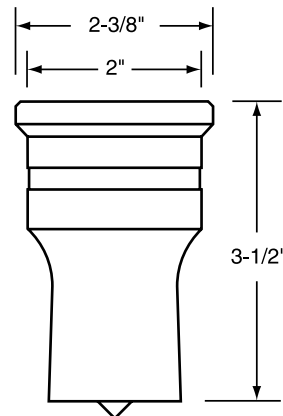
164 STOCK
Round & Oblongs



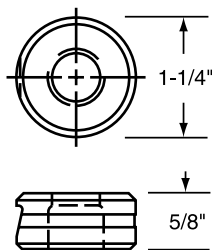
164L STOCK



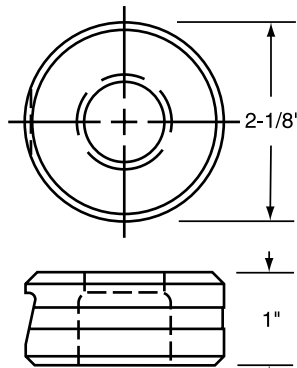
165 STOCK



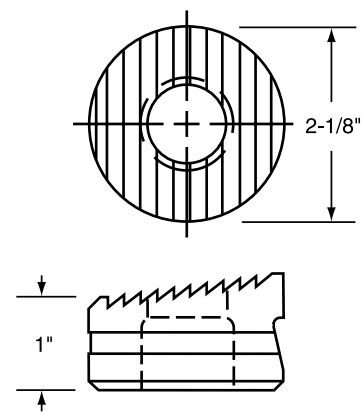
166 EXPRESS



348 EXPRESS



347 STOCK



347BC EXPRESS

Express items will ship in 1 to 2 days.

ANGLELINE BEAMLINE & DUPLICATORS

STOCK ROUNDS

	163	164	164L	165	347
3/16		X			
7/32		X			X
1/4	X	X			X
9/32		X			X
5/16	X	X	X		X
11/32		X			X
3/8		X			X
13/32		X			X
7/16	X	X	X		X
15/32		X			X
1/2	X	X			X
17/32		X			X
9/16	X	X	X		X
19/32		X			X
5/8	X	X	X		X
21/32		X			X
11/16	X	X	X	X	X
23/32		X			X
3/4		X			X
25/32		X			X
13/16	X	X	X	X	X
27/32		X			X
7/8	X	X	X	X	X
29/32		X			X
15/16	X	X	X	X	X
31/32		X			X
1		X			X
1-1/32		X			X
1-1/16		X	X	X	X
1-3/32					X
1-1/8		X	X		X
1-5/32					X
1-3/16		X	X		X
1-7/32					X
1-1/4		X	X	X	X
1-9/32					X
1-5/16		X		X	X
1-11/32					X
1-7/16					X
1-1/2				X	X
1-17/32					X
1-9/16					X

All #164 stock oblong punches have cross (2) keyways, 1/4 x 1/8.

All #347 stock oblong dies have 2 set screw spots.

STOCK OBLONG PUNCHES

	164
5/16 X 1	X
5/16 X 1-1/4	X
7/16 X 1	X
7/16 X 1-1/4	X
9/16 X 1	X
9/16 X 1-1/4	X
11/16 X 1	X
11/16 X 1-1/4	X
13/16 X 1	X
13/16 X 1-1/16	X
13/16 X 1-1/8	X
13/16 X 1-1/4	X
13/16 X 1-1/2	X
15/16 X 1-1/8	X
15/16 X 1-1/4	X
15/16 X 1-1/2	X
1-1/16 X 1-1/4	X
1-1/16 X 1-1/2	X

STOCK OBLONG DIES

	347
11/32 X 1-1/32	X
11/32 X 1-9/32	X
15/32 X 1-1/32	X
15/32 X 1-9/32	X
19/32 X 1-1/32	X
19/32 X 1-9/32	X
5/8 X 1-1/16	X
5/8 X 1-5/16	X
23/32 X 1-1/32	X
23/32 X 1-9/32	X
3/4 X 1-1/16	X
3/4 X 1-5/16	X
27/32 X 1-1/32	X
27/32 X 1-3/32	X
27/32 X 1-5/32	X
27/32 X 1-9/32	X
27/32 X 1-17/32	X
7/8 X 1-1/16	X
7/8 X 1-1/8	X
7/8 X 1-3/16	X
7/8 X 1-5/16	X
7/8 X 1-9/16	X
31/32 X 1-5/32	X
31/32 X 1-9/32	X
31/32 X 1-17/32	X
1 X 1-3/16	X
1 X 1-5/16	X
1 X 1-9/16	X
1-3/32 X 1-9/32	X
1-1/8 X 1-5/16	X
1-3/32 X 1-17/32	X
1-1/8 X 1-9/16	X



AMERICAN PUL
COMPANY



The following pages show specific tooling for a variety of machine brands. We are not limited to this; We will help design and manufacture tooling to fit any application.

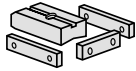
**Structural Steel, Bridges,
Grader and Plow Blades,
Farm Implements, Culvert Pipe,
Railway Car and Track,
Metal Buildings, Leaf Springs,
Truck Frames, Truck Bodies,
Storage Racks, Storage Tanks,
Tillage Tools, Ornamental Iron,
and many more.**

*Send us your special requirements to quote.
We specialize in custom-made tooling.
We deliver when promised.*

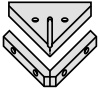


BUFFALO(TM)

ODEL "1/2" and "1-1/2"



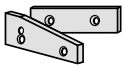
Coper



Notcher

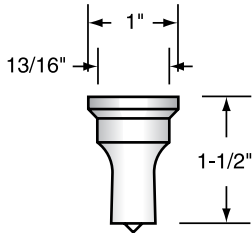


Bar Cutter

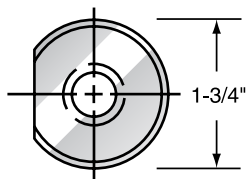


Shear Blades

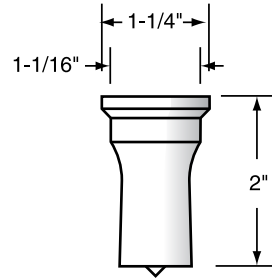
MODEL "O"



3620 EXPRESS

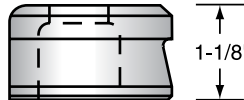
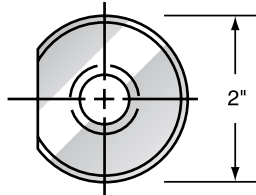


8530 EXPRESS



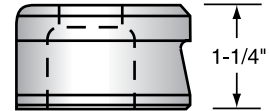
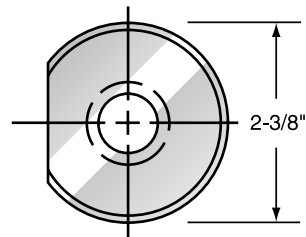
6640 STOCK

MODEL "1/2"



1400 STOCK

MODEL "1-1/2"

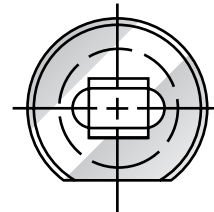


6650 STOCK

All Angle Notchers,
Coper Tools, Shear Blades,
Bar Cutters and Knives
AVAILABLE FOR ALL MODELS

CALL 800.243.1492

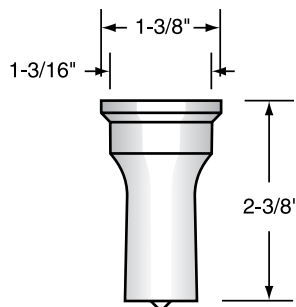
TO REQUEST THE BUFFALO™ CATALOG



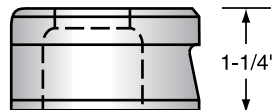
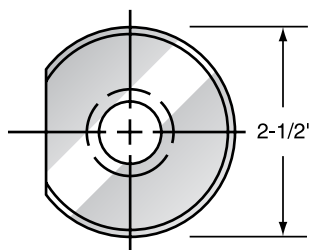
Standard hole position
in relation to flat

MODEL "2-1/2"

Before 1952

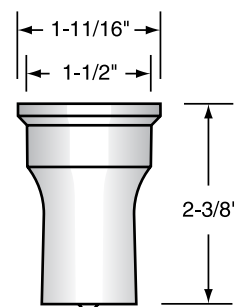


9030 EXPRESS



9040 STOCK

After 1952

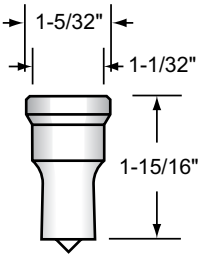


3T10 STOCK

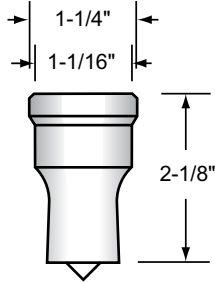
Express items will ship in 1 to 2 days.

HILL ACME^(TM) IRONCRAFTER^(TM)

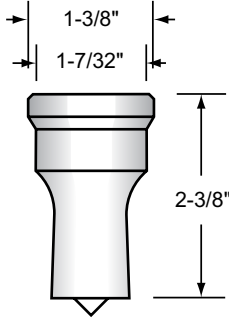
KINGSLAND^(TM) KLING^(TM)



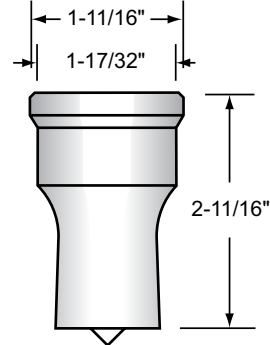
116 STOCK



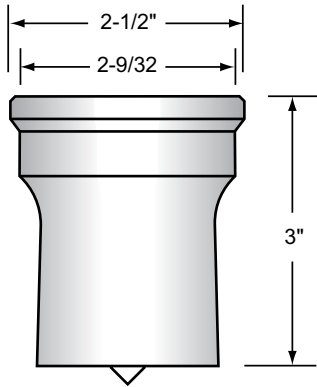
119 STOCK



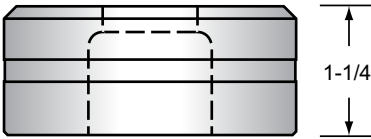
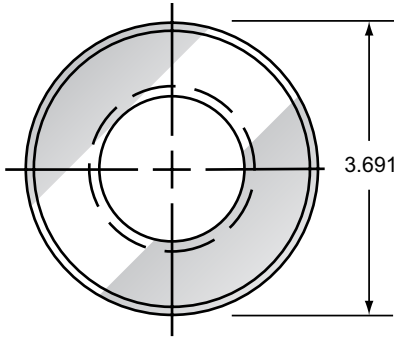
121 STOCK



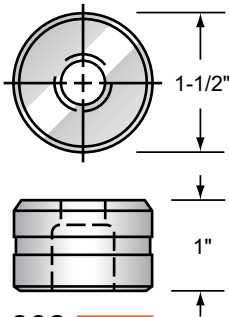
128 STOCK



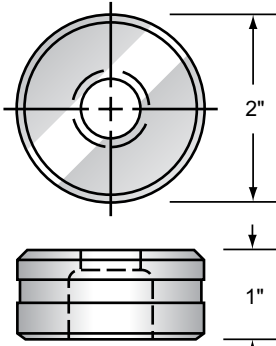
137 EXPRESS



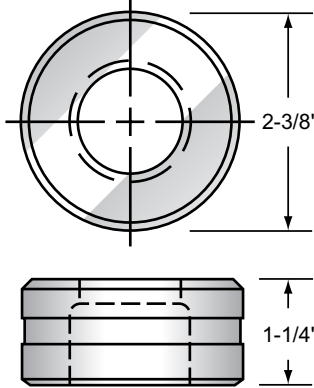
APS 8833



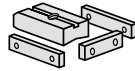
308 STOCK



317 STOCK



319 STOCK



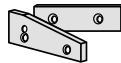
Coper



Notcher

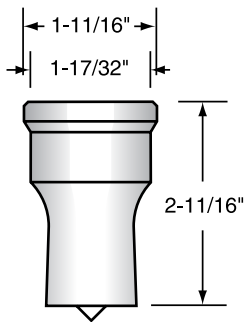


Bar Cutter

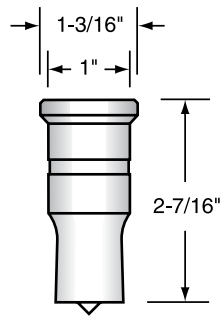


Shear Blades

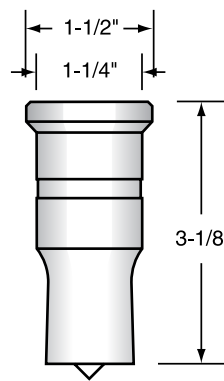
CONTROLLED AUTOMATION(TM)



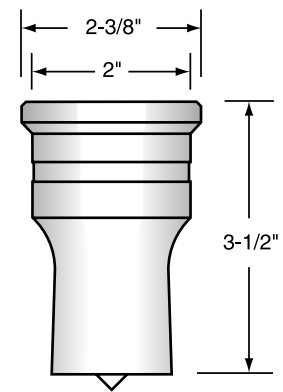
128 STOCK



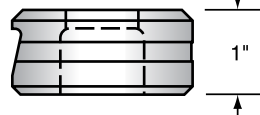
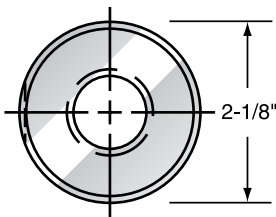
163 STOCK



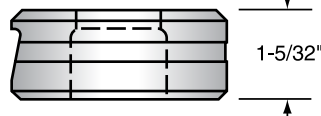
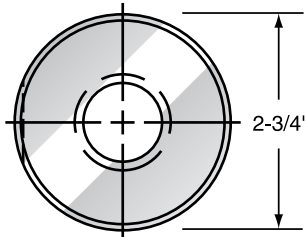
164 STOCK



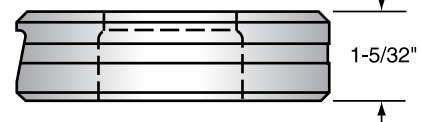
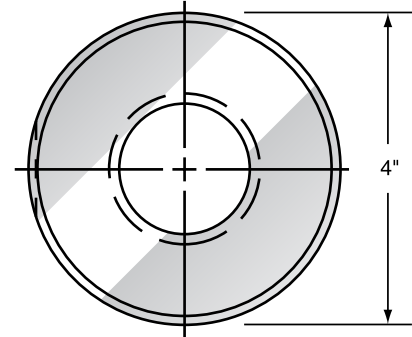
166 EXPRESS



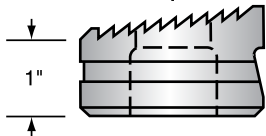
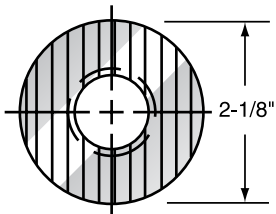
347 STOCK



346 EXPRESS

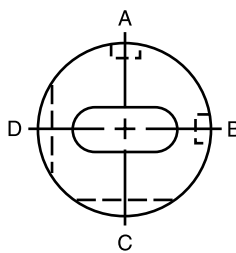


345 EXPRESS



347BC EXPRESS

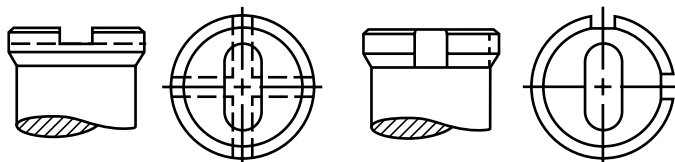
*Shaped Dies have
2 pin holes
and 2 set screw spots.*



*For 100XX Tooling,
see page 47.*



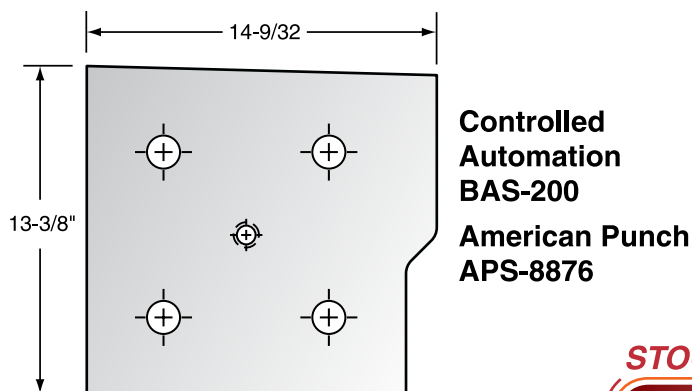
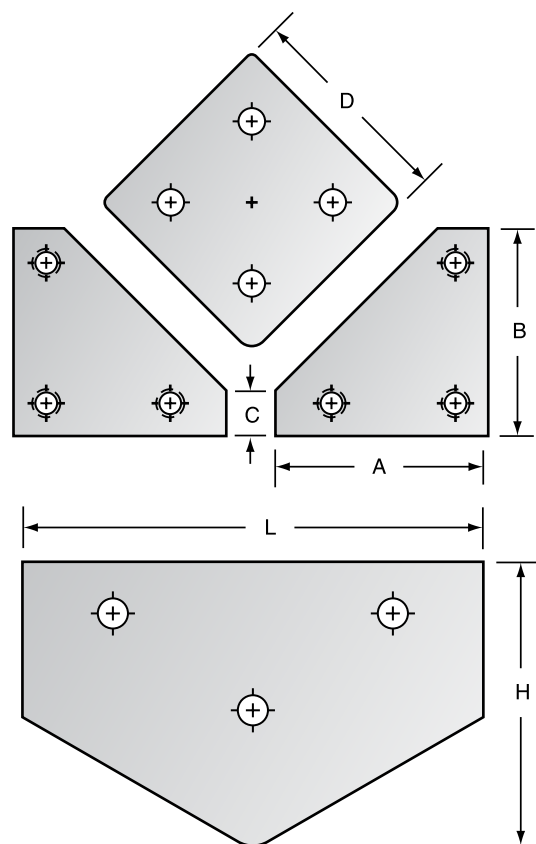
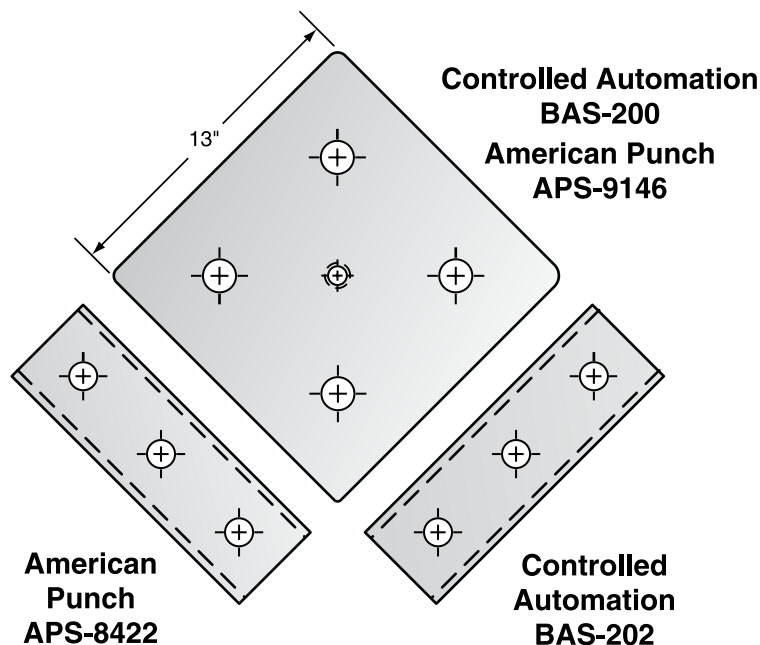
*All shaped punches other than round
have either top or side keyways.*



Express items will ship in 1 to 2 days.

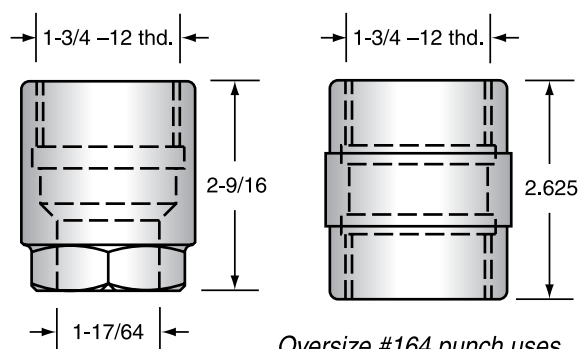
CONTROLLED AUTOMATION(TM)

ANGLE BLADES



STOCK BLADES

COUPLING NUTS/COUPLER

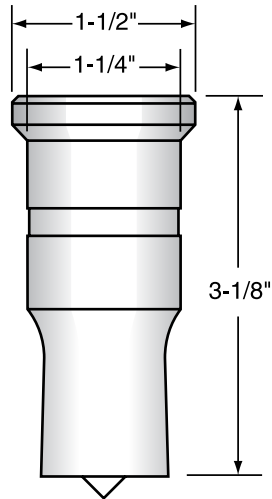


Oversize #164 punch uses
#164-C split C-nut - see page 52.

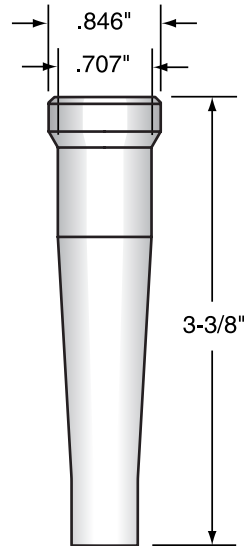
Controlled Automation Part No.	American Punch Part No.	Description
DCS346	APS-2055	Angle Blade
DCS347	APS-2063	Lower Left Insert
DCS348	APS-2064	Lower Right Insert
PAL-229	APS-4185	Angle Blade
PAL-227/228	APS-4184	Lower Insert

FICEP(TM)

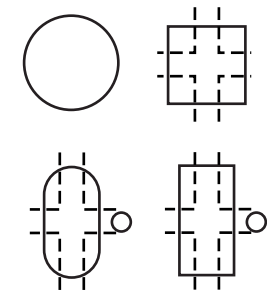
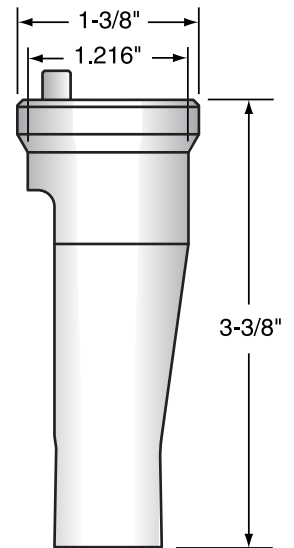
AmPch = **#164**
Ficep = **A30448-Rd**



AmPch = **#7564**
Ficep = **A21922-Rd**

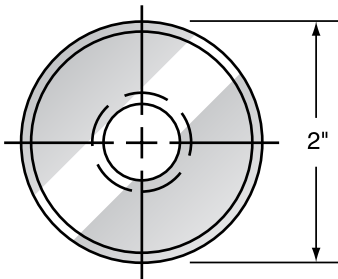


VERSA PRESS
AmPch = **#F121F**
Ficep = **A23912-Rd**
TYPO-D-F1218489

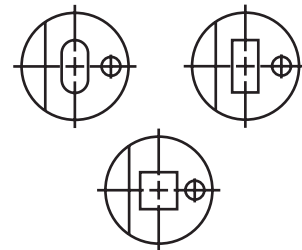
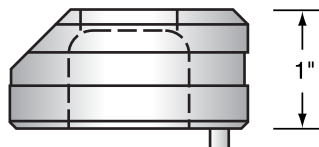
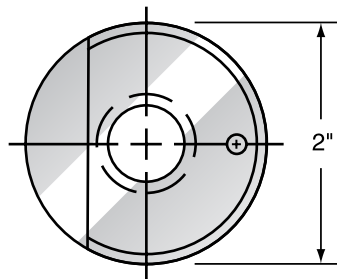


*All shaped punches
supplied with
2 keyways or 1 pin*

AmPch = **#317**
Ficep = **A12688-Rd**

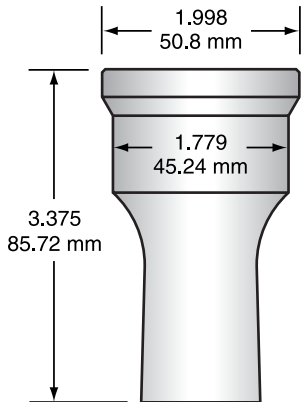


AmPch = **#F317/45**
Ficep = **A17968-Rd**

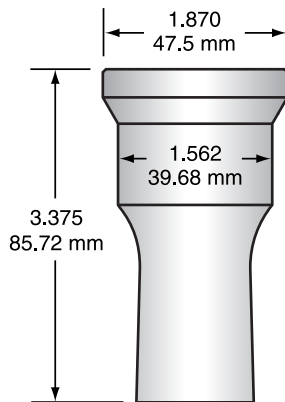


*All shaped dies
supplied with 1 pin*

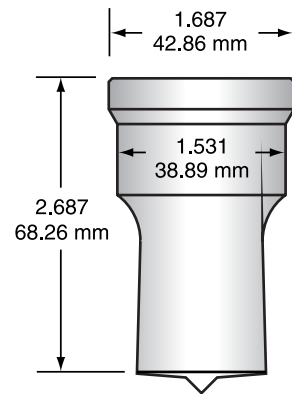
FICEP(TM)



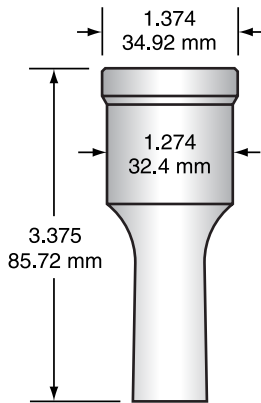
AmPch = **#159**
Ficep = **A26359**



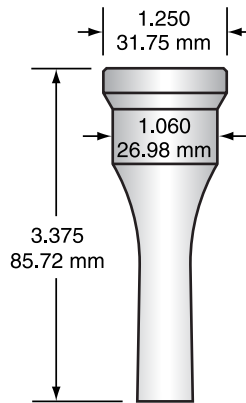
AmPch = **#147**
Ficep = **A22084**



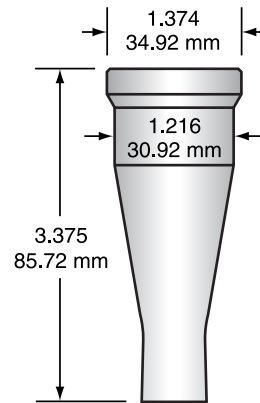
AmPch = **#128**
Ficep = **A08224**



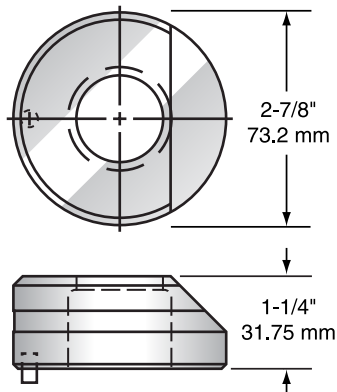
AmPch = **#186**
Ficep = **A26129**



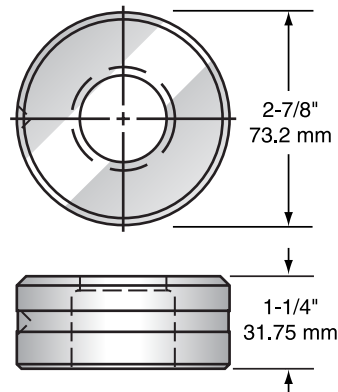
AmPch = **#188**
Ficep = **A18788**



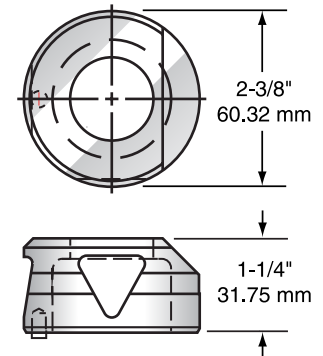
AmPch = **#F121**



AmPch = **#371/45**
Ficep = **A26371**

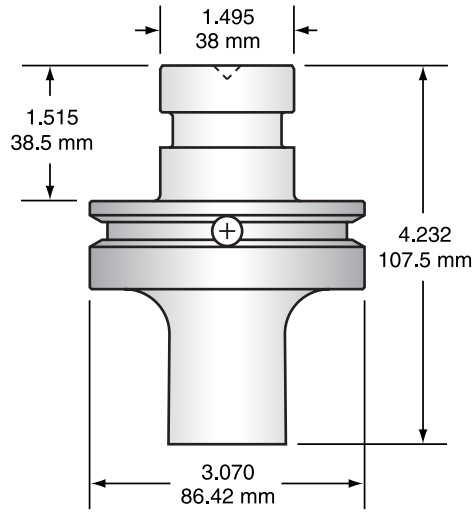


AmPch = **#371**
Ficep = **A12957**

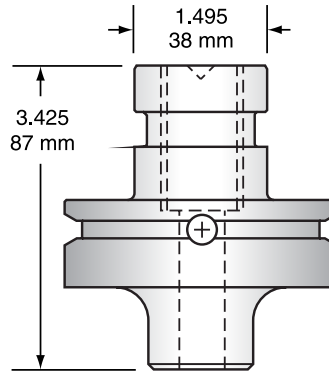


AmPch = **#F319/45**
Ficep = **A21578**

FICEP(TM)

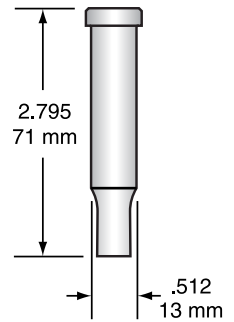


AmPch = **#8294**
Ficep = **A30604**



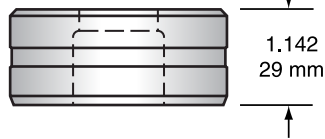
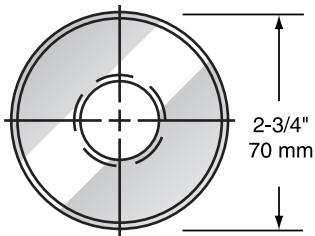
AmPch = **#8300**
Ficep = **726471**

For hole sizes to .510



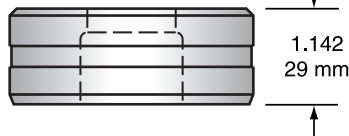
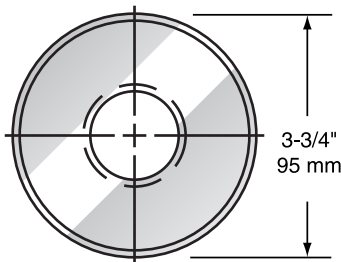
AmPch = **#7745**
Ficep = **A30493**

For hole size
.191 to 1.180



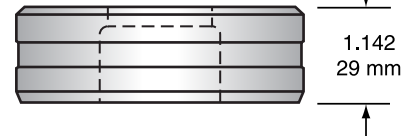
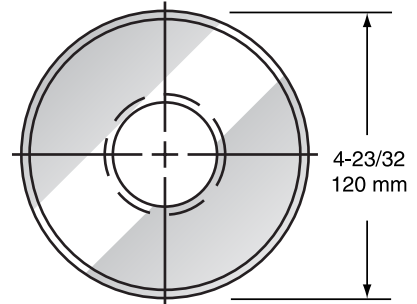
AmPch = **#7610**
Ficep = **G00445**

For hole size
1.181 to 2.362



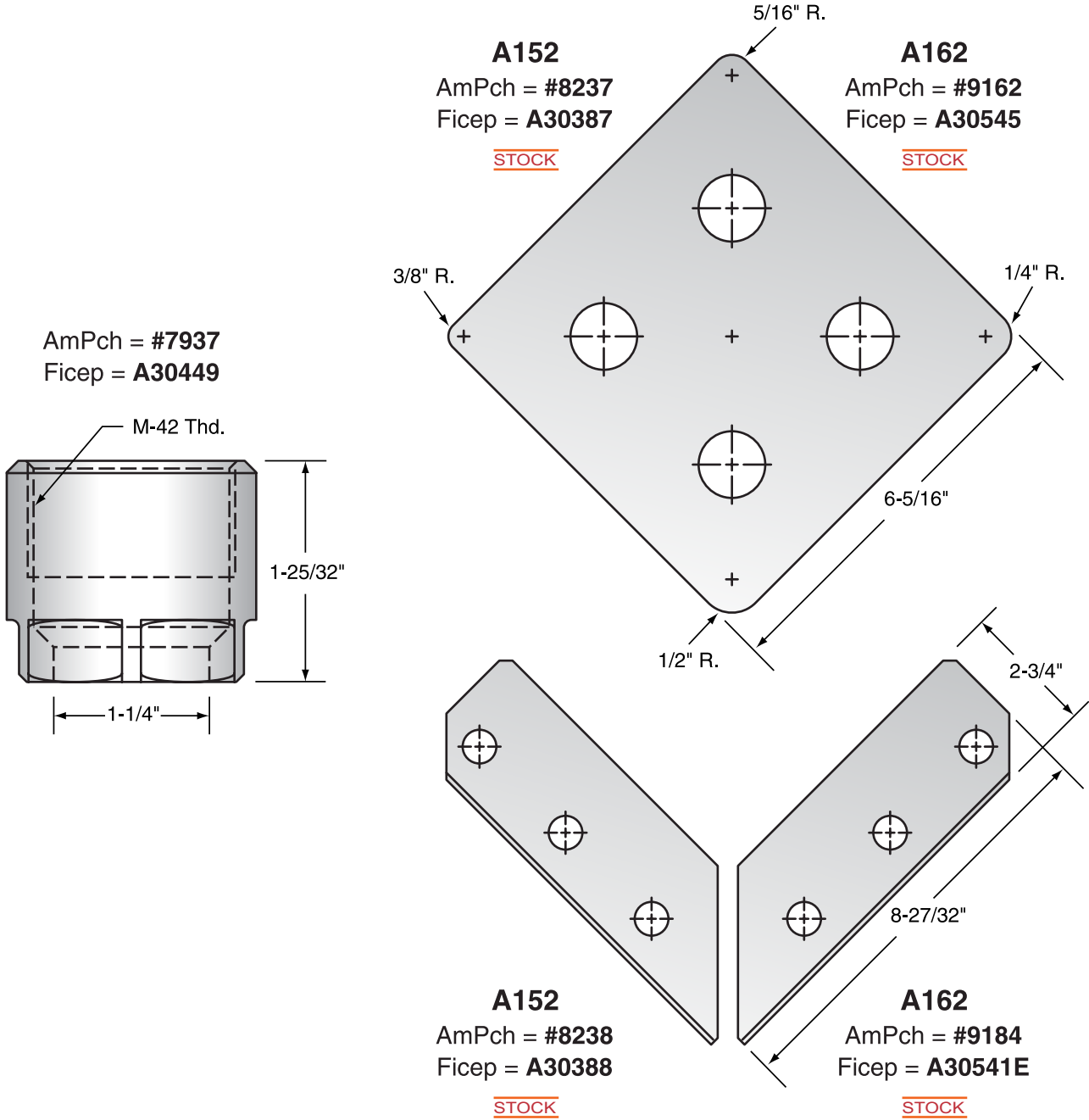
AmPch = **#7611**
Ficep = **G00446**

For hole size
2.363 to 2.952

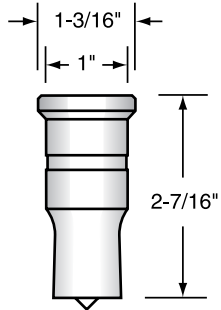


AmPch = **#7612**
Ficep = **G00448**

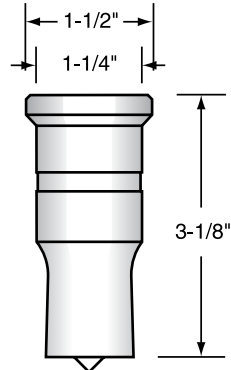
FICEP(TM)



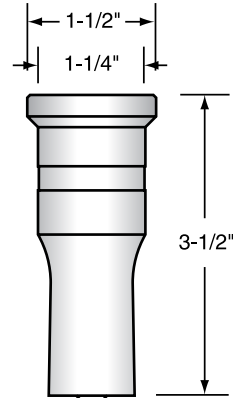
FRANKLIN(TM)



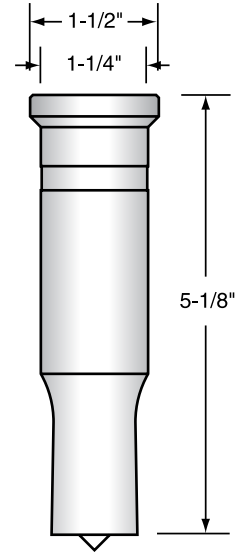
163 STOCK



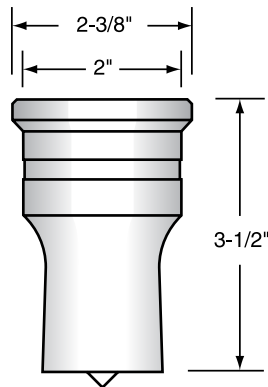
164 STOCK



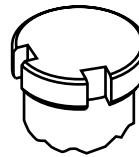
164L STOCK



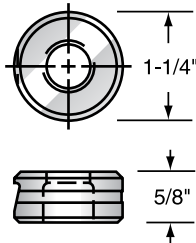
164FXL



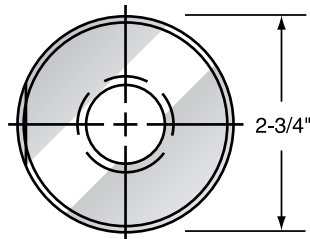
166 EXPRESS



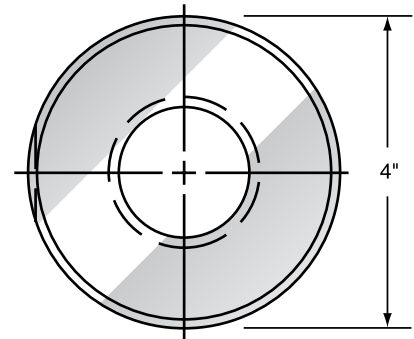
All shapes other than round will have 2 side head keyways. Please specify FRANKLIN when ordering.



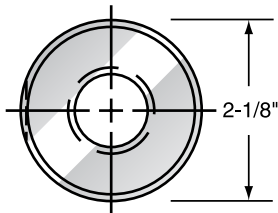
348 EXPRESS



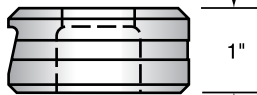
346 EXPRESS



345 EXPRESS



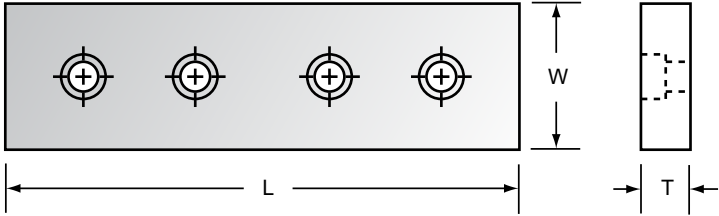
347 STOCK



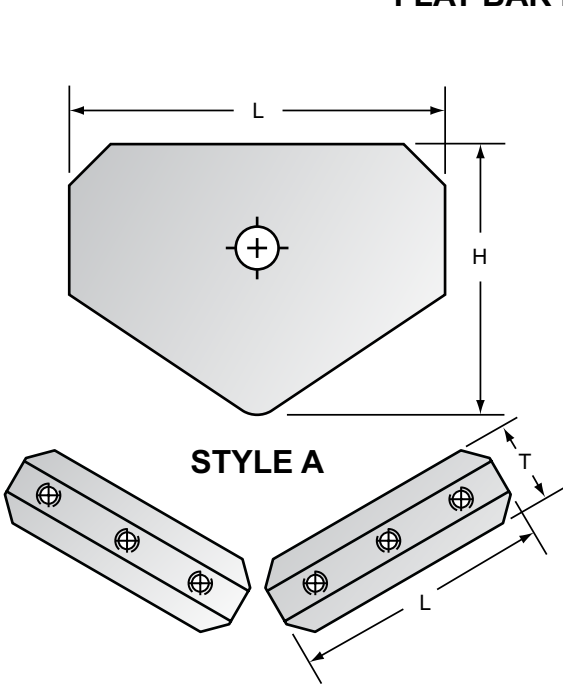
Express items will ship in 1 to 2 days.

FRANKLIN(TM)

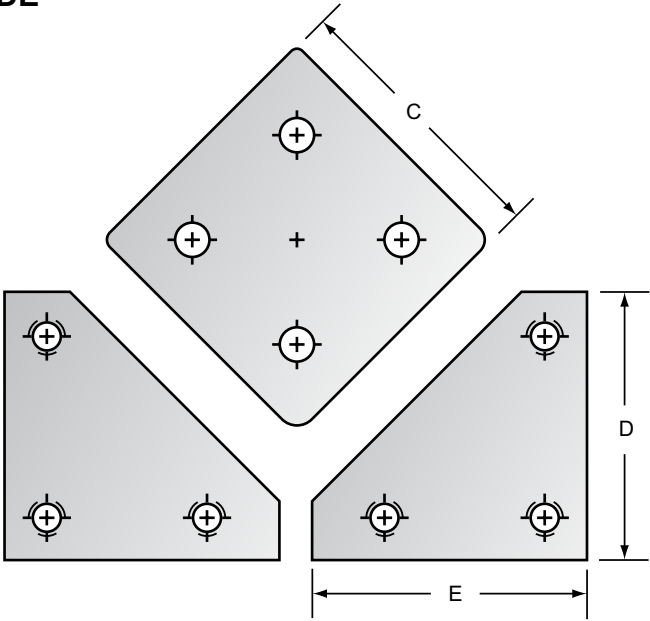
SHEAR/ANGLE BLADES



FLAT BAR BLADE

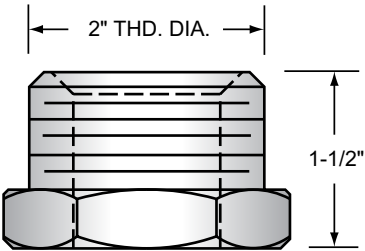


STYLE A



STYLE B

COUPLING NUT



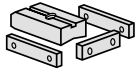
APS-7950

ANGLE BLADES

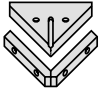
American Punch Part No.		Description
FRANKLIN MODEL 1504		
APS-402	Upper Angle Blade	
APS-368	Lower Angle Blade	
FRANKLIN MODEL 1506		
APS-2277	Upper Angle Blade	
APS-2276	Lower Angle Blade	
OTHER BLADES		
APS-10035	Franklin 775459-C	

CALL WITH OTHER PART NUMBERS FOR QUOTE

GEKA(TM)



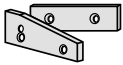
Coper



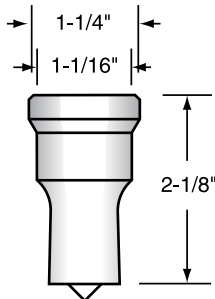
Notcher



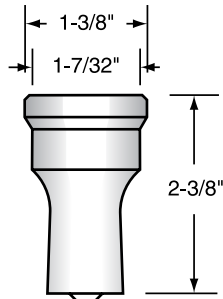
Bar Cutter



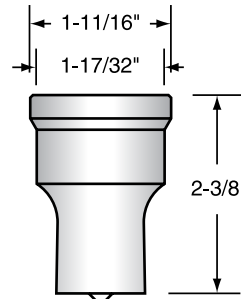
Shear Blades



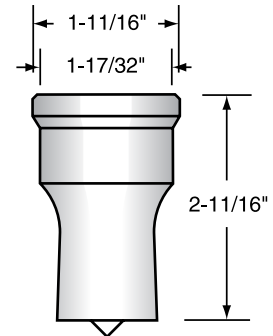
119 STOCK



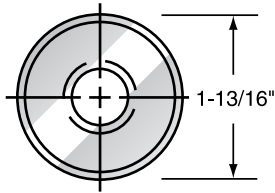
121 STOCK



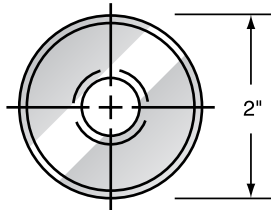
128S EXPRESS



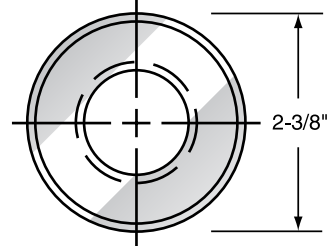
128 STOCK



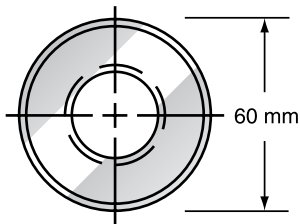
313 STOCK



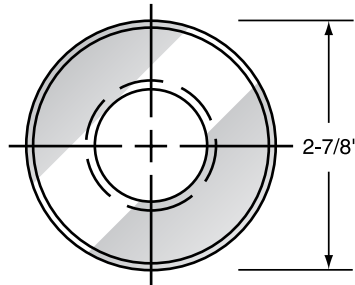
317 STOCK



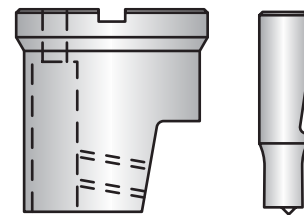
319 STOCK



360 EXPRESS

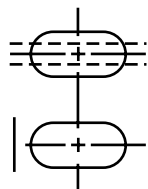


321 EXPRESS



**OFFSET TOOLING
AVAILABLE**

American Punch recommends a keyway in all shaped punches and set screw spots on all shaped dies.



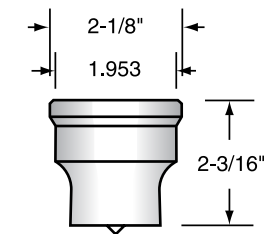
Standard keyway dimensions
.238" wide X
.110" deep

Please specify GEKA tooling for correct key and spot dimensions.

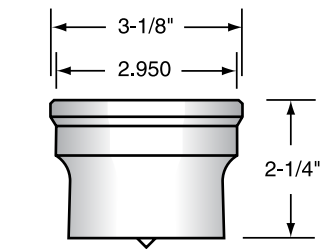
Express items will ship
in 1 to 2 days.

GEKA(TM)

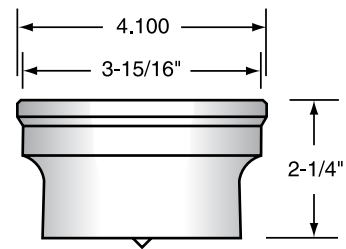
GEKA OVERSIZE



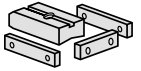
#11



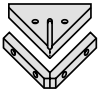
#12



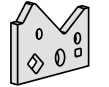
#13



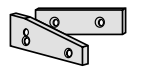
Coper



Notcher

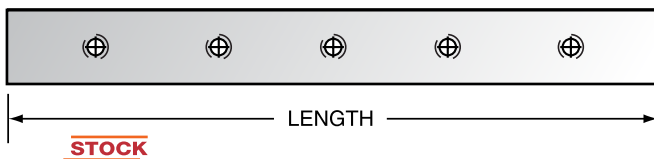
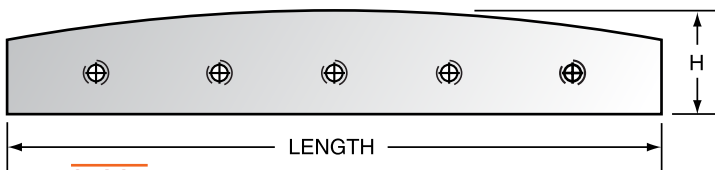


Bar Cutter



Shear Blades

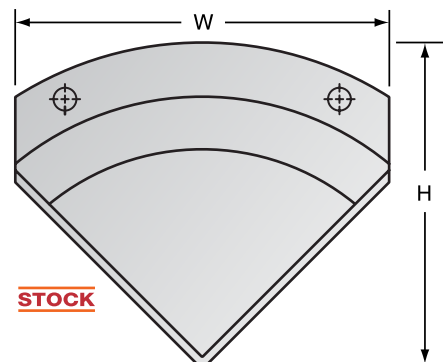
SHEAR BLADES



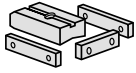
Part No.	Length	
5305	12"	STOCK
2798	18-23/32	STOCK
3765	24"	STOCK

Part No.	Length	
5304	12"	STOCK
2799	18-23/32	STOCK
7137	24"	STOCK

Geka Part No.	American Punch Part No.	Description
HYD55-15-5	APS-7236	Upper Angle Blade
HYD100-15-5	APS-7752	Upper Angle Blade
HYD110-15-5	APS-7561	Upper Angle Blade
HYD165-15-5	APS-7240	Upper Angle Blade
HYD80-15-5	APS-8628	Upper Angle Blade
HYD110/100/80-15-5	APS-7568	Lower Long Blade
HYD110/100/80-15-4	APS-7567	Lower Short Blade



MUBEA(TM)



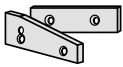
Coper



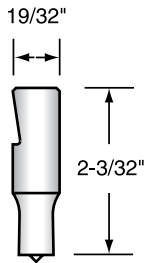
Notcher



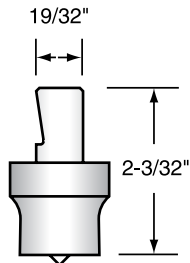
Bar Cutter



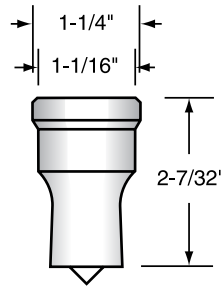
Shear Blades



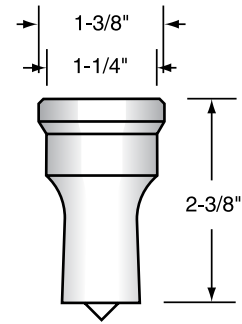
BF10 EXPRESS
Up to 9/16



BF10 EXPRESS
Up to 1-1/4"

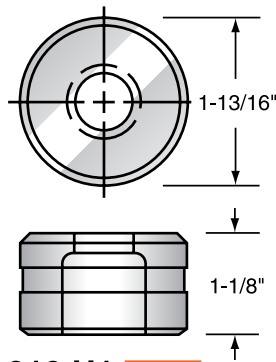
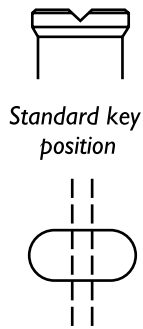


119M H1 STOCK

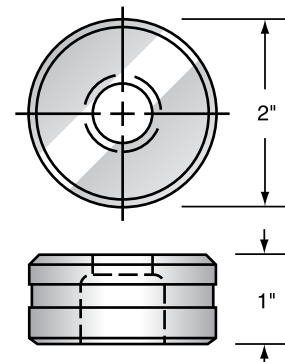


121M H2 STOCK

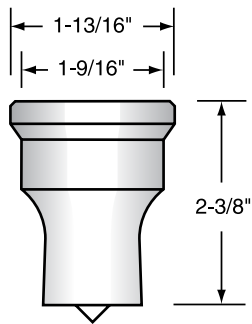
BF10 uses a
H1 die. All
oblong, square,
rectangular
and hex dies
have 2 drill spots.
Punches have
1 keyway.



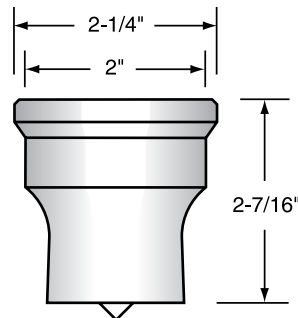
313 H1 STOCK



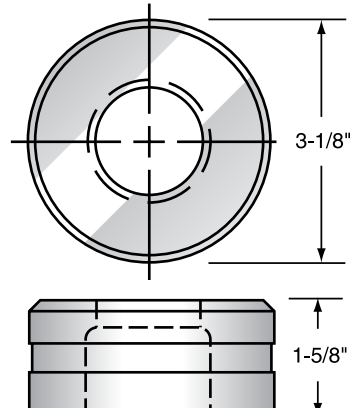
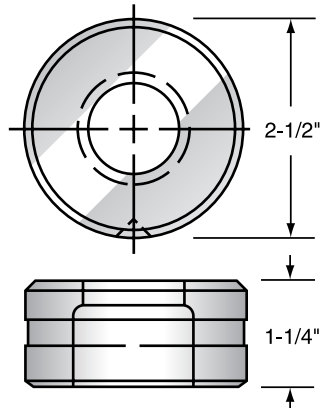
317 H2 STOCK



A3 EXPRESS

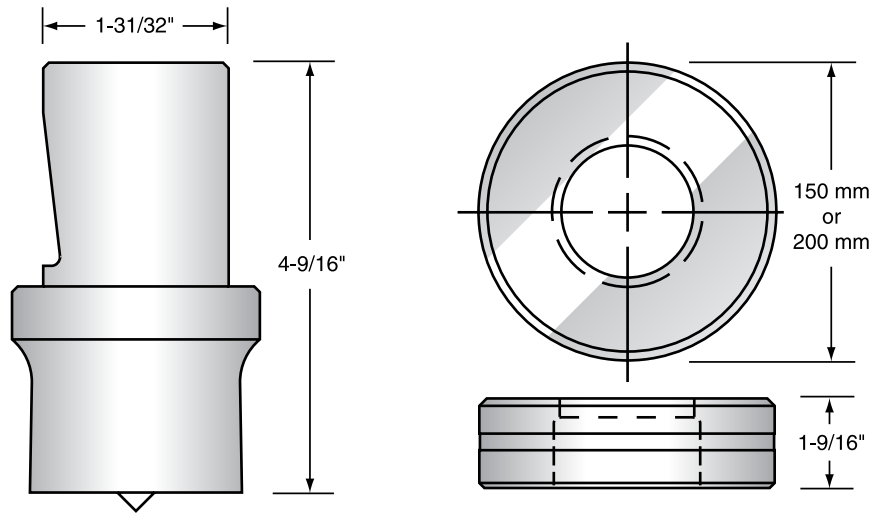


A4 EXPRESS

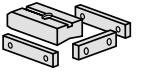


Express items will ship in 1 to 2 days.

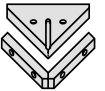
MUBEA(TM)



A5



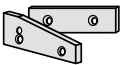
Coper



Notcher

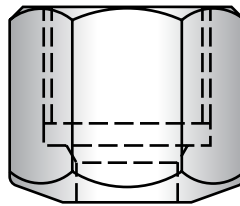


Bar Cutter

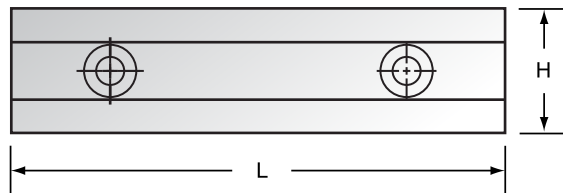


Shear Blades

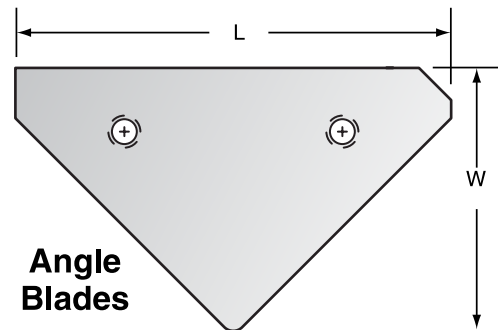
COUPLING NUTS - H1, H2, H3, H4



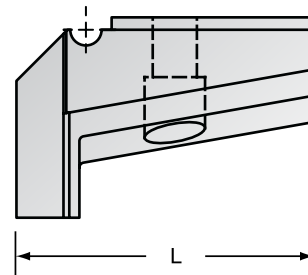
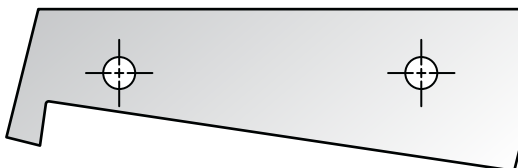
SHEAR BLADES, COPERS, NOTCHERS



Flat Bar

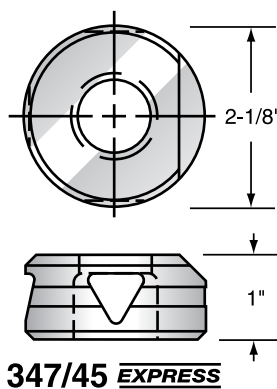
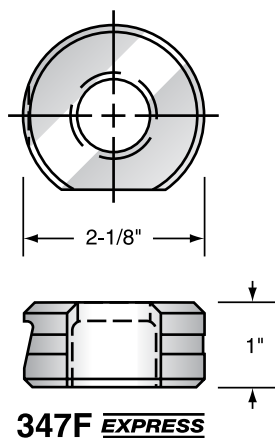
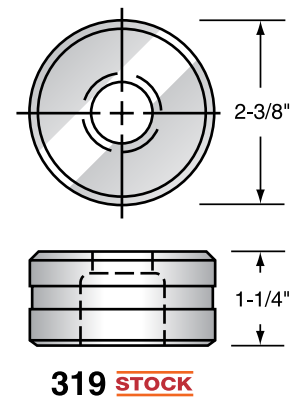
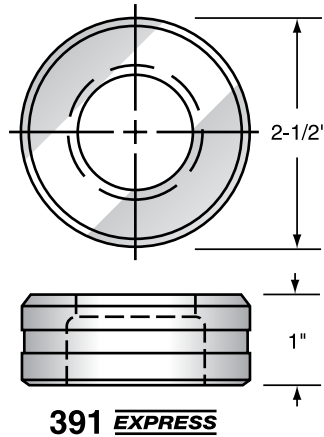
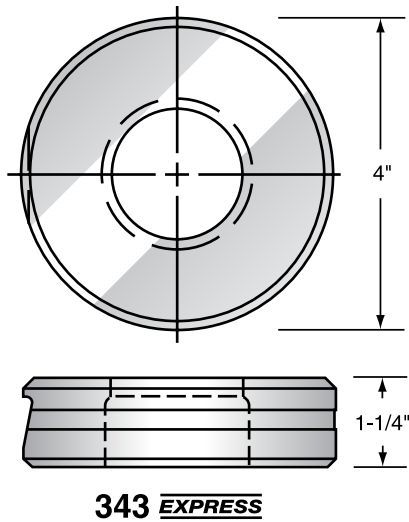
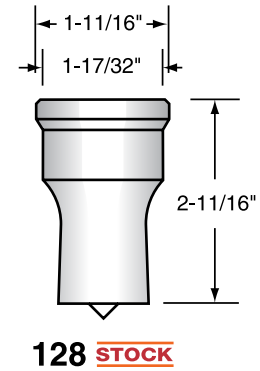
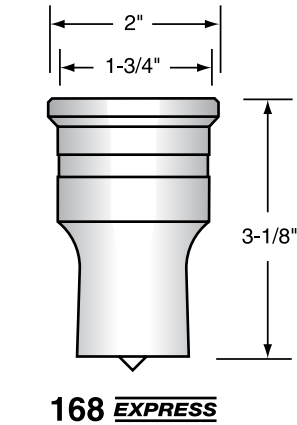
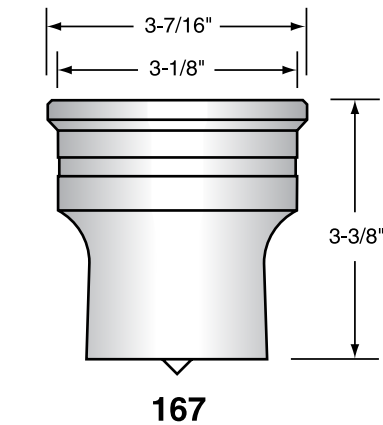


**Angle
Blades**

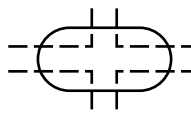


Coper

PEDDINGHAUS(TM) PORTABLE & PLATE



All shaped punches are supplied with 2 keyways.



Standard
1/4" wide X
1/8" deep

Punch

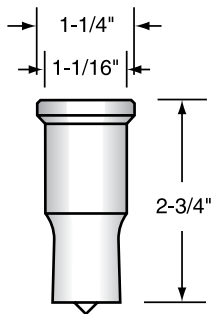
#272	=	#164
#274	=	#164V
#282	=	#165
#162	=	#128
#292-PIB	=	#168 (FPB -1500 Tooling)
#400	=	#167

Die

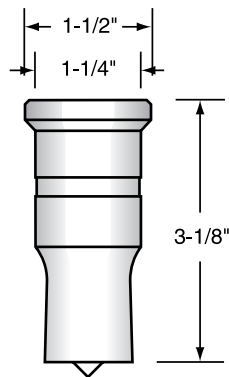
#271	=	#347
#281	=	#319
#291	=	#391 (FPB -1500 Tooling)
#401	=	#344
#403	=	#343
#781	=	#390

Express items will ship in 1 to 2 days.

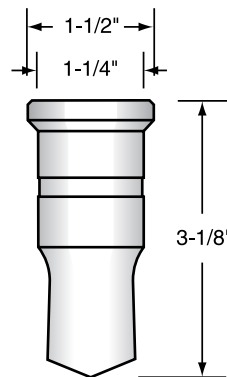
PEDDINGHAUS(TM) ANGLELINE & BEAMLINE



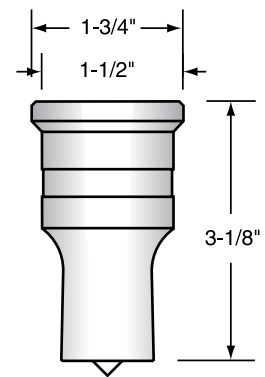
119L STOCK



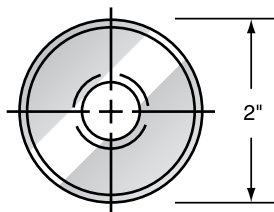
164 STOCK



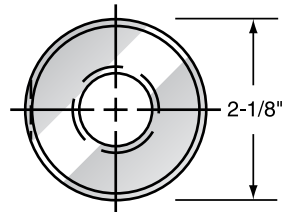
164V EXPRESS



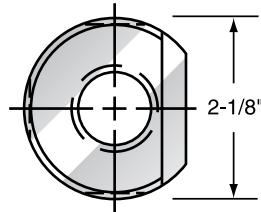
165 STOCK



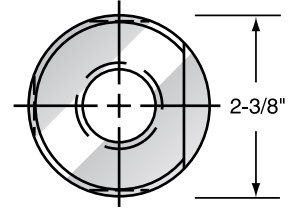
317 STOCK



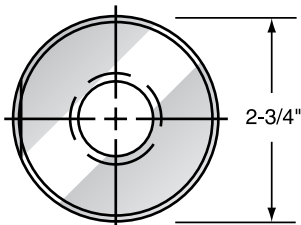
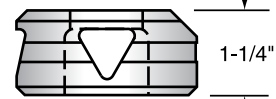
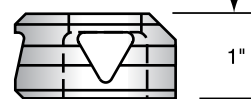
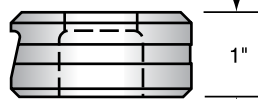
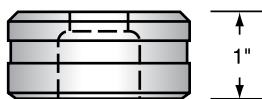
347 STOCK



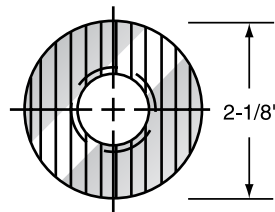
347F/45 EXPRESS



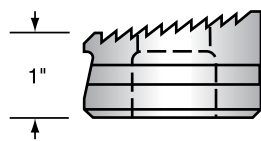
319/45 EXPRESS



344 EXPRESS



347BC EXPRESS



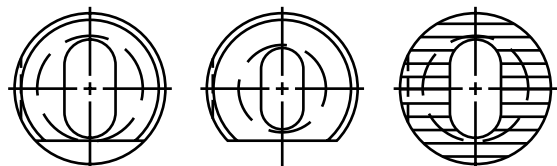
Bevel-corrugated
available in all die styles.

*Straight or smoothbore available
upon request.*

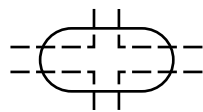


No counterbore.

*PEDDINGHAUS standard position in relation to
bevel, flat or corrugation.*

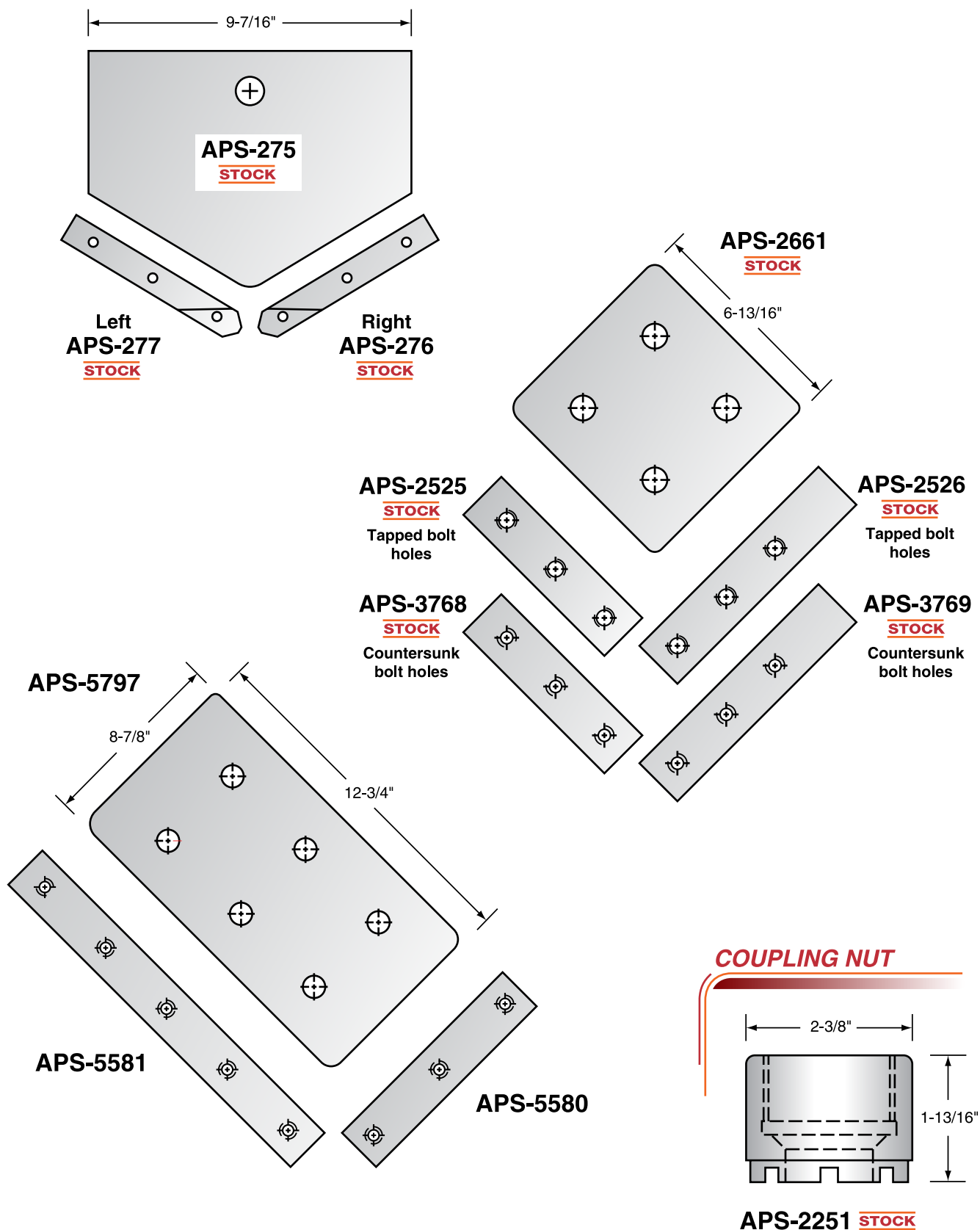


*All shaped punches are
supplied with 2 keyways.*

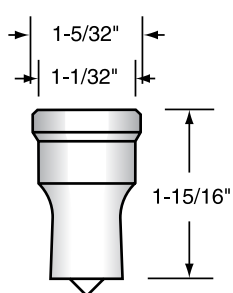


*Standard
1/4" wide X
1/8" deep*

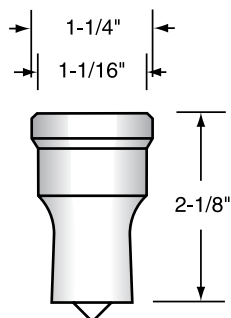
PEDDINGHAUS™ BLADES



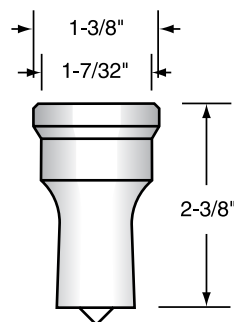
PEDDINGHAUS(TM) STEELWORKERS



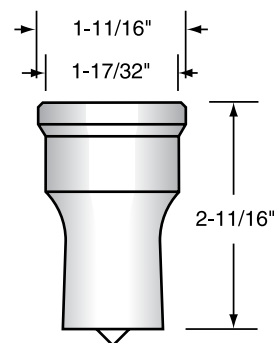
116 STOCK



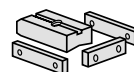
119 STOCK



121 STOCK



128 STOCK



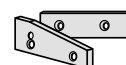
Coper



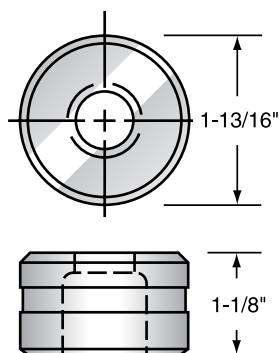
Notcher



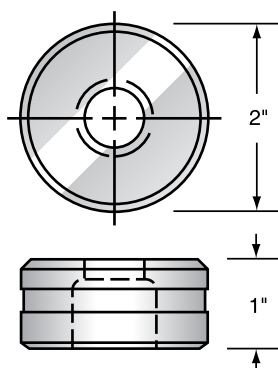
Bar Cutter



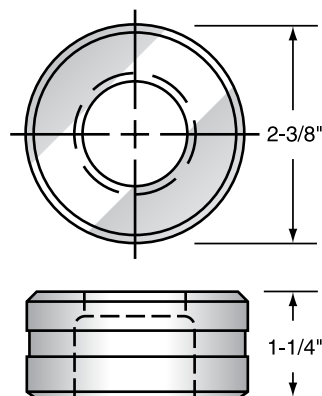
Shear Blades



313 STOCK

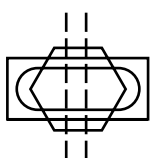


317 STOCK



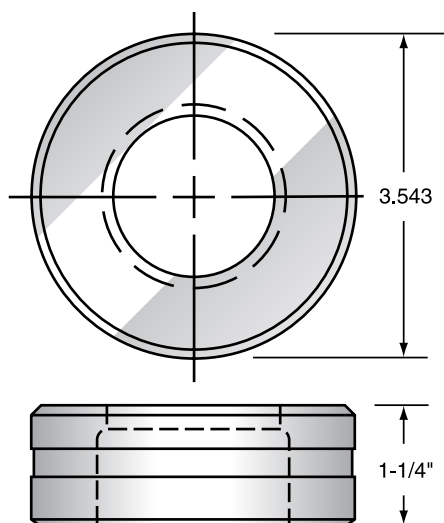
319 STOCK

Standard key direction

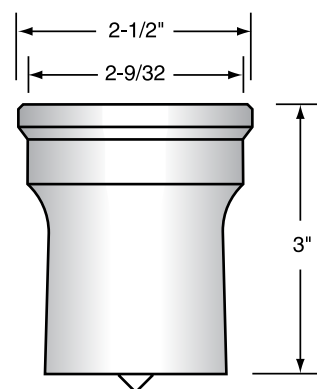


Keyway dimensions
4 mm wide x
4 mm deep.

We recommend
keyways on all
shapes other than
round.



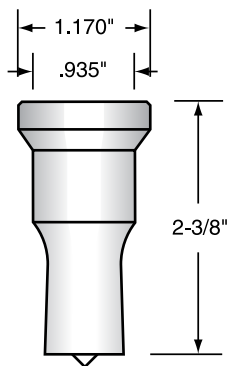
390 EXPRESS



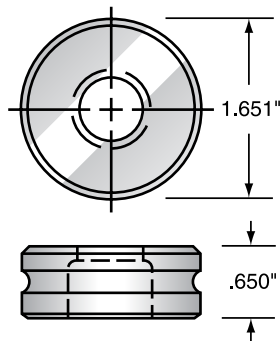
137 EXPRESS

ALFRA (TM) NITTO KOHK (TM) ENERPACD (TM) HUSKIE (TM)

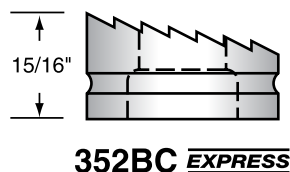
ALFRA, NITTO KOHKI



192 STOCK



352 STOCK

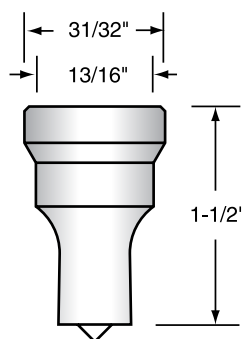


352BC EXPRESS

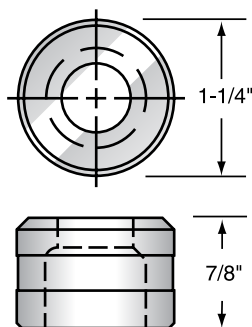
STOCK SIZES

5/16
7/16
9/16
11/16
13/16
15/16

ENERPAC



112 STOCK

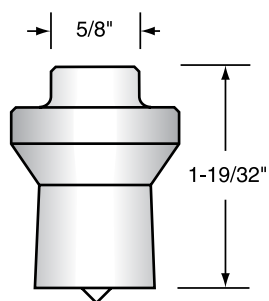


305 STOCK

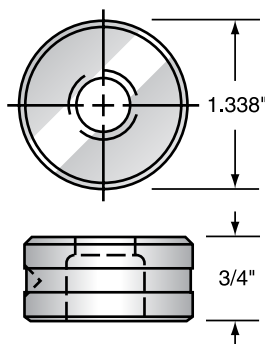
STOCK SIZES

5/16
7/16
9/16
11/16
13/16

HUSKIE, POWER TEAM™, PORT-A-PUNCH™



105 STOCK

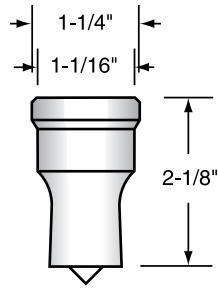


244 STOCK

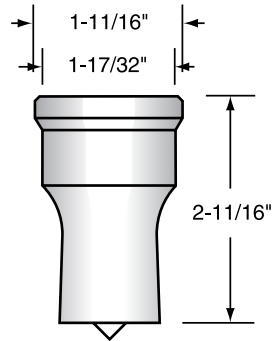
STOCK SIZES

5/16
7/16
9/16
11/16
13/16

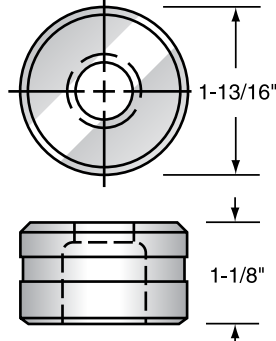
PIRANHA(TM)



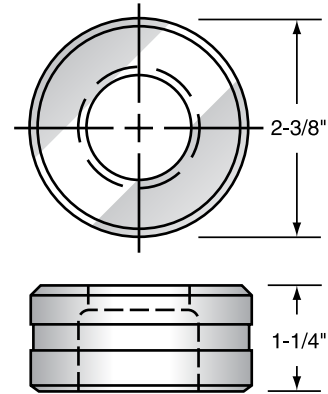
119 STOCK



128 STOCK



313 STOCK



319 STOCK

Standard keyway
uses a round key

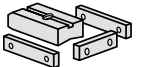


American Punch recommends a
keyway on all punches
other than round.

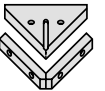
Standard location



2 set screw spots
provided on all dies
other than round.



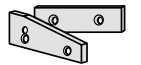
Coper



Notcher

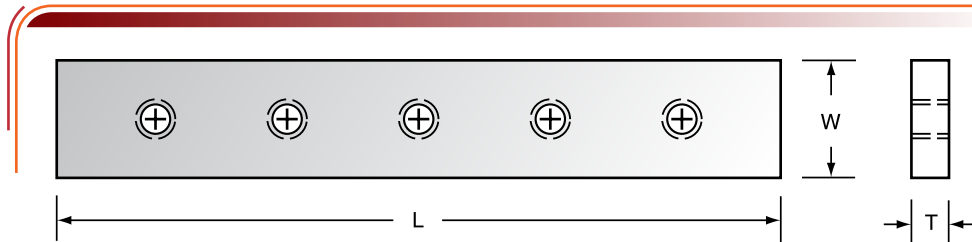


Bar Cutter



Shear Blades

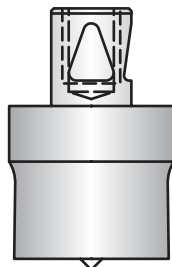
SHEAR BLADES



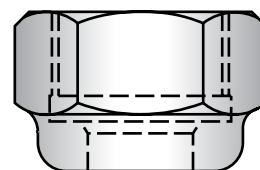
Part No.	"L"	"W"	"T"	No. of tapped holes	
6273	11-1/4"	1-1/2"	3/4"	4	STOCK
6272	12-1/8"	1-1/2"	3/4"	5	STOCK
4327	14-5/8"	1-1/2"	3/4"	5	STOCK
7502	14-5/8"	2"	1"	5	STOCK
3153	16-5/8"	2"	1"	5	STOCK
4328	20-1/2"	2"	1"	6	STOCK
8723	2-5/8"	1-1/2"	3/4"	7	STOCK

See Shear Blade Chart page 16 for **STOCK** Angle Blades and Coper Punch and Die

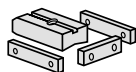
HEAVY-DUTY PUNCH



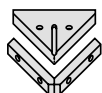
COUPLING NUT



HMI™ METAL MUNCH™ EDWARDS™



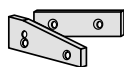
Coper



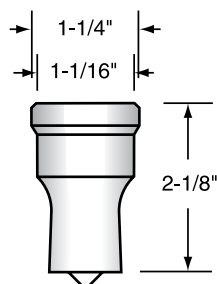
Notcher



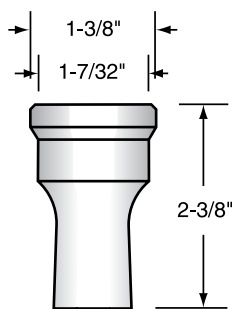
Bar Cutter



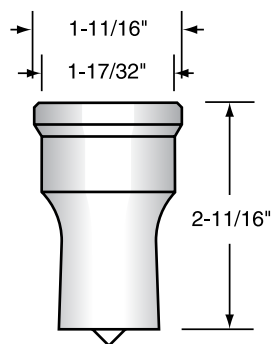
Shear Blades



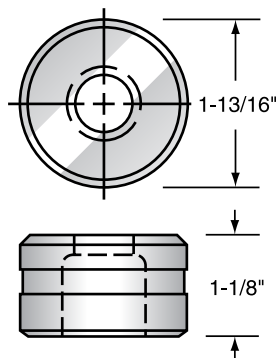
119 STOCK



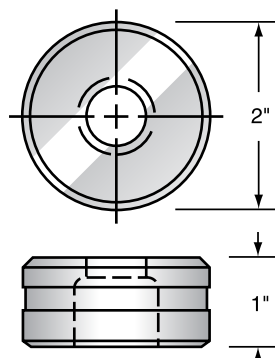
121 STOCK



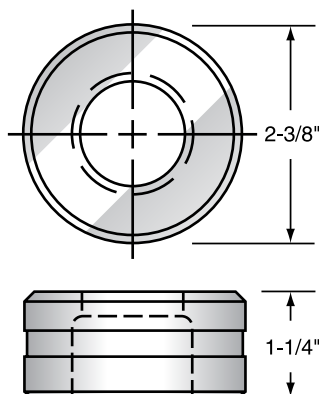
128 STOCK



313 STOCK

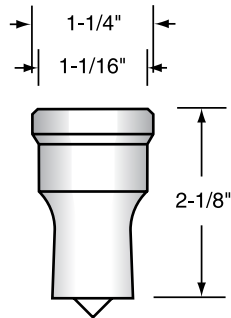


317 STOCK

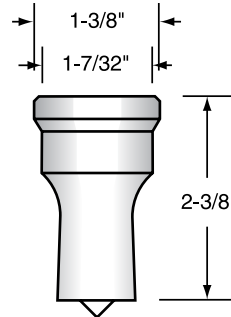


319 STOCK

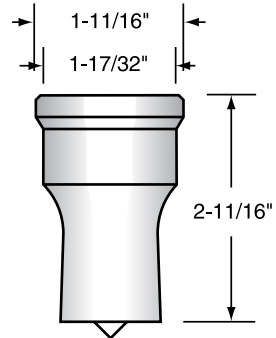
SPARTANTM



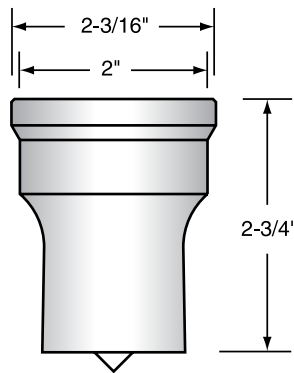
119 STOCK



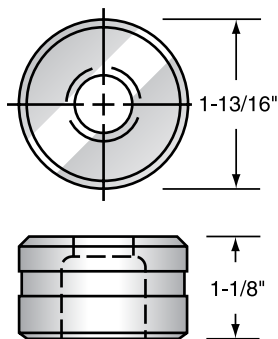
121 STOCK



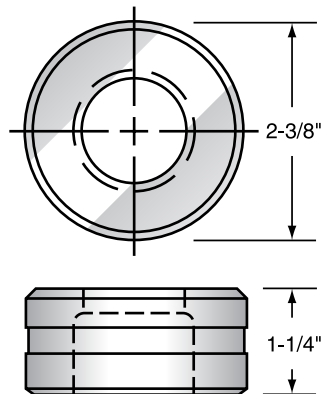
128 STOCK



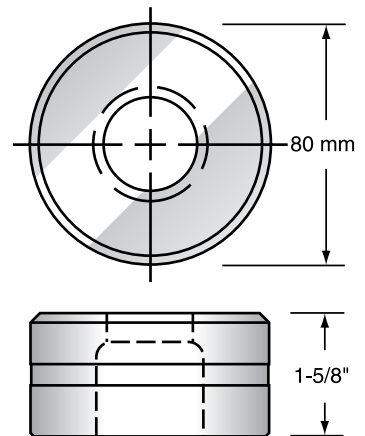
151



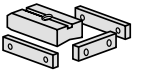
313 STOCK



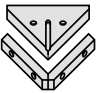
319 STOCK



380



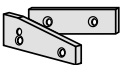
Coper



Notcher

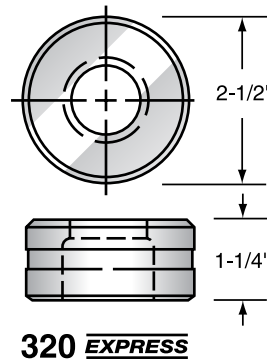
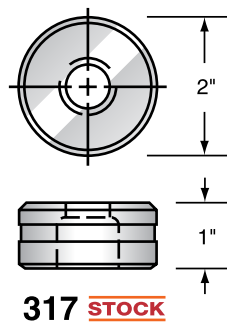
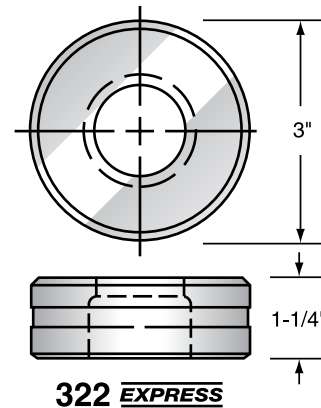
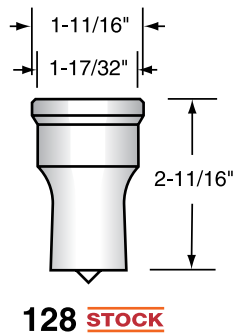
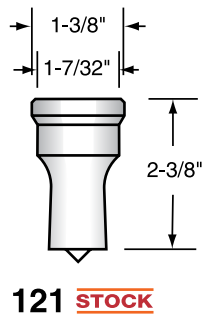
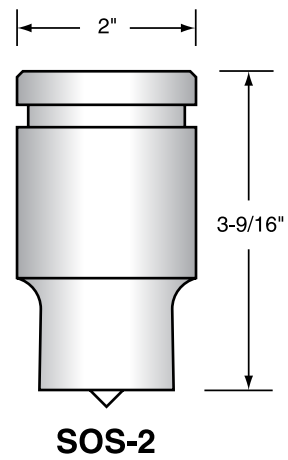
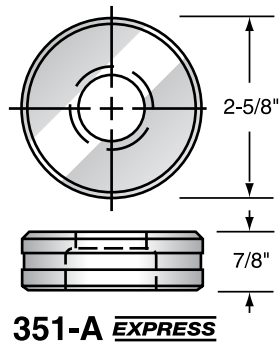
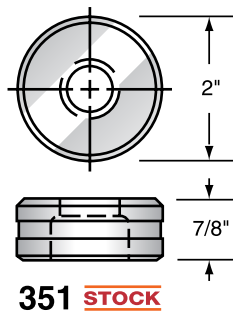
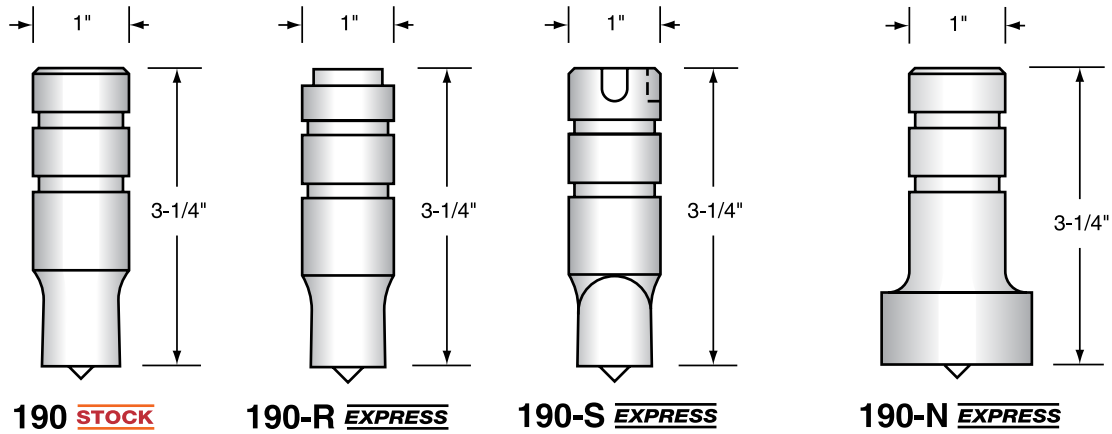


Bar Cutter



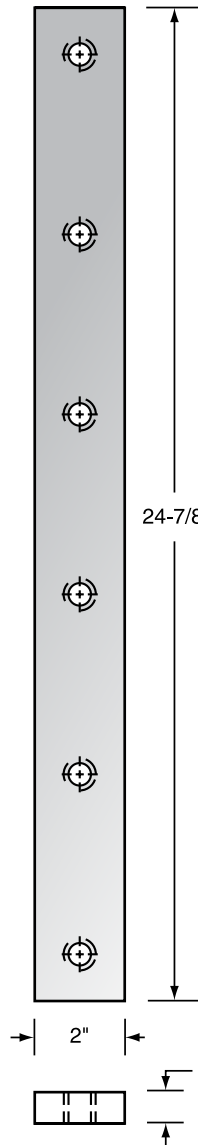
Shear Blades

SCOTCHMANSCOTCHMAN(TM)



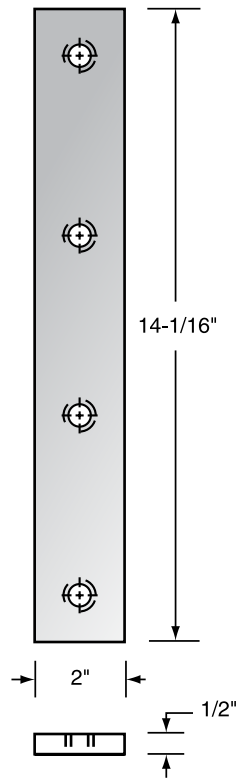
Express items will ship in 1 to 2 days.

SCOTCHMAN

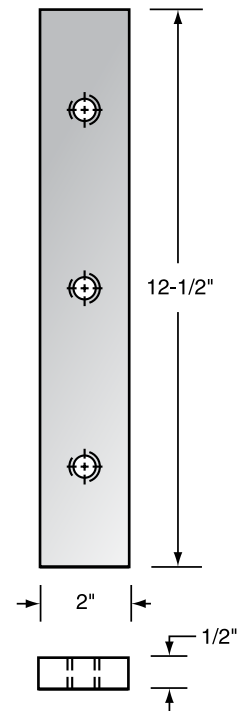


APS-7120 STOCK

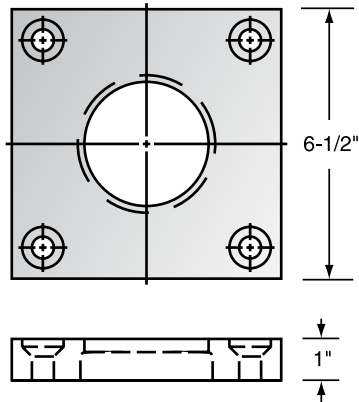
APS-7119 STOCK



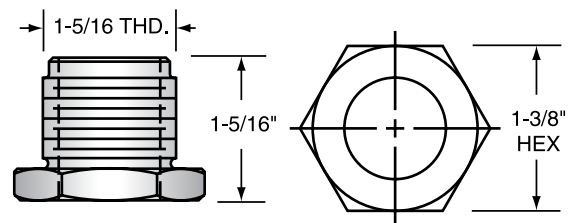
APS-7155 STOCK



6X6 BLOCK DIE

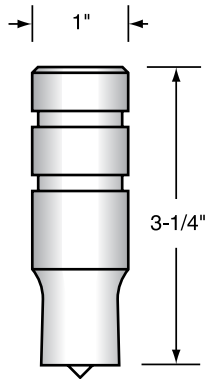


COUPLING NUT

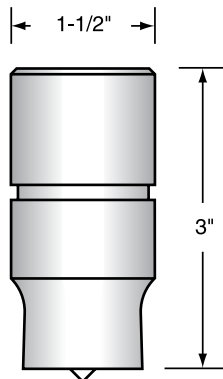


APS-8429

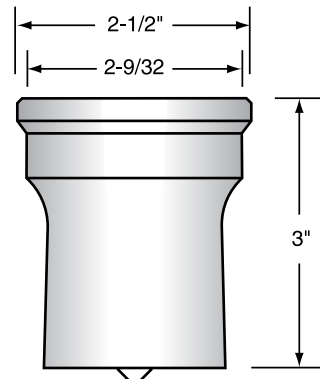
UNI-HYDRO(TM) METAL PRO(TM)



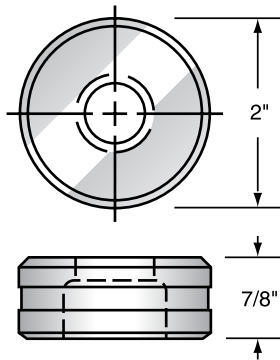
190 STOCK



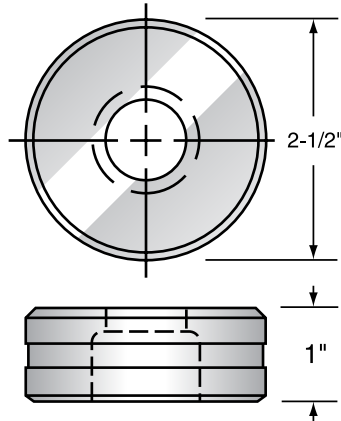
190-A EXPRESS



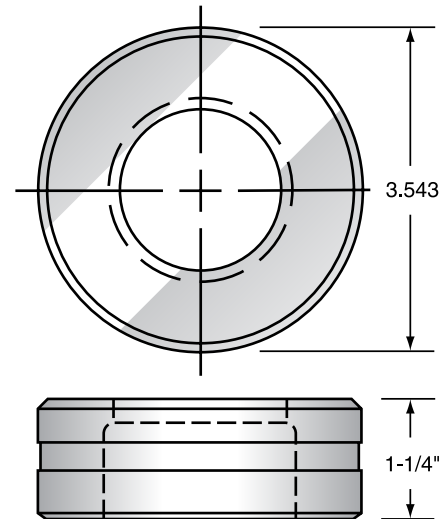
137 EXPRESS



351 STOCK

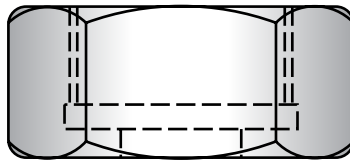


353 EXPRESS



390 EXPRESS

COUPLING NUTS

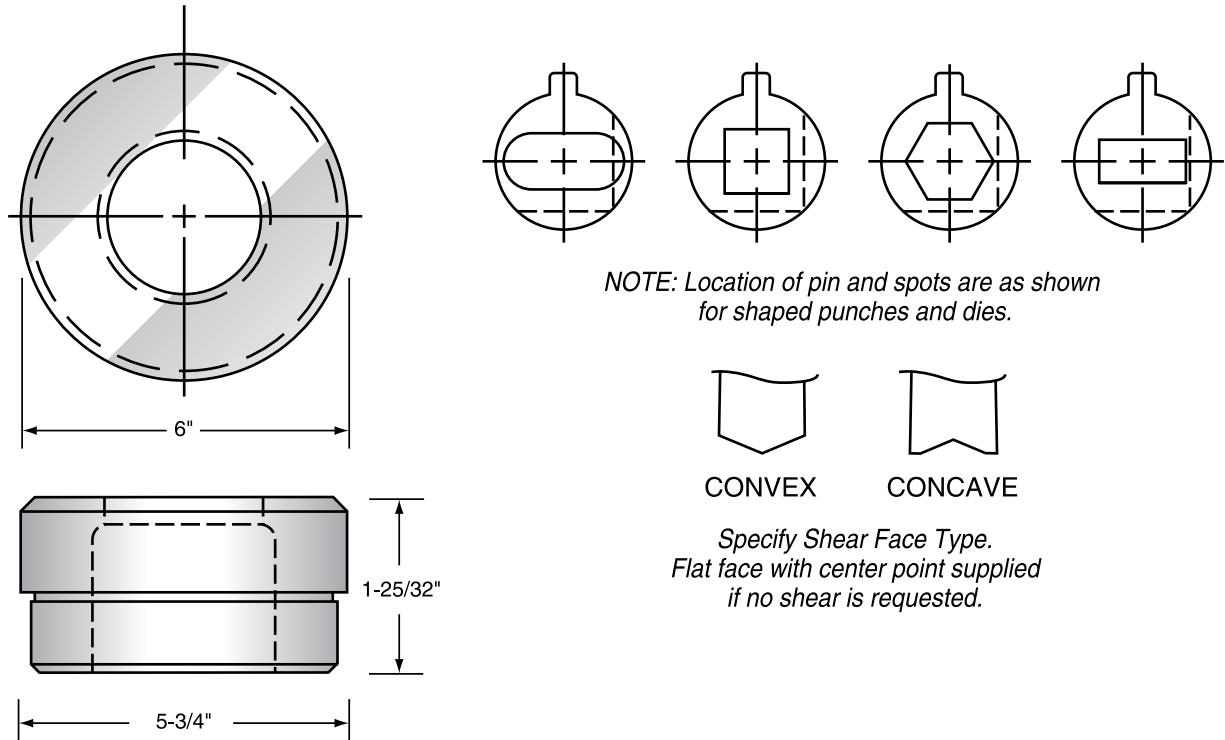
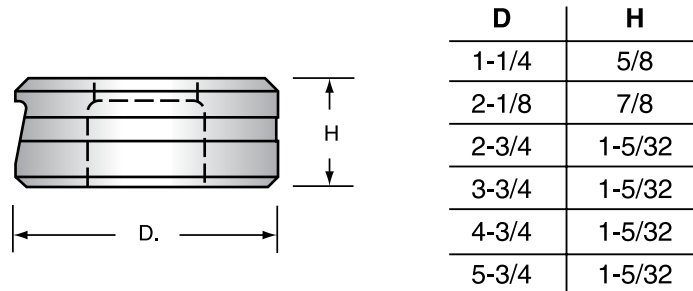
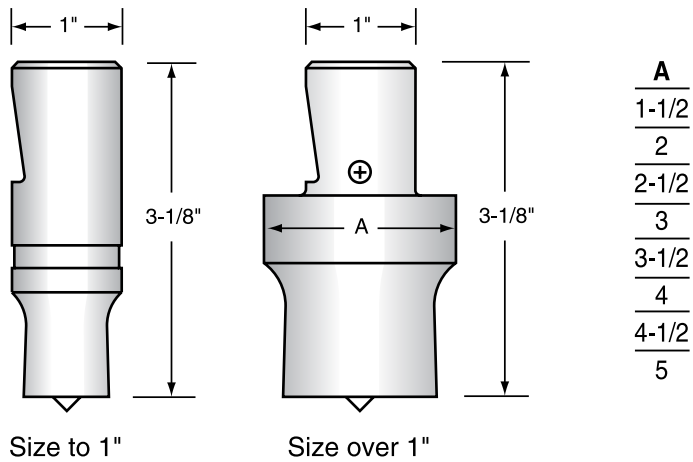


190 = APS-8031

190A = APS-9404

Express items will ship in 1 to 2 days.

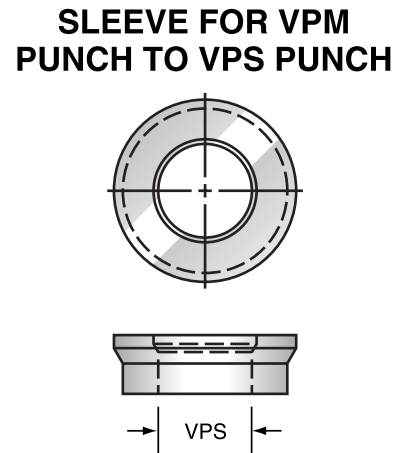
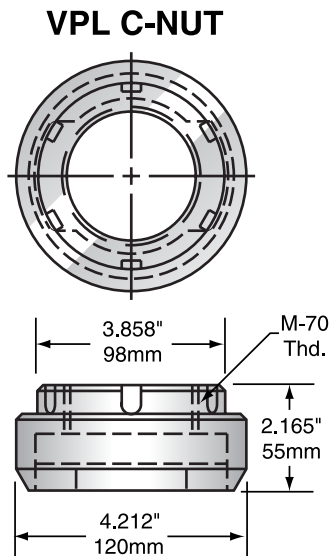
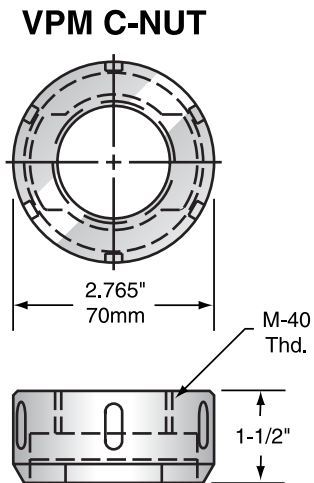
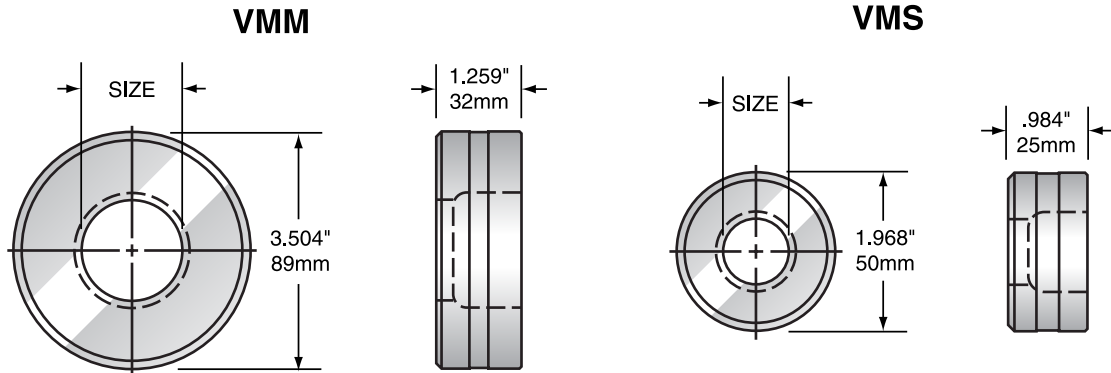
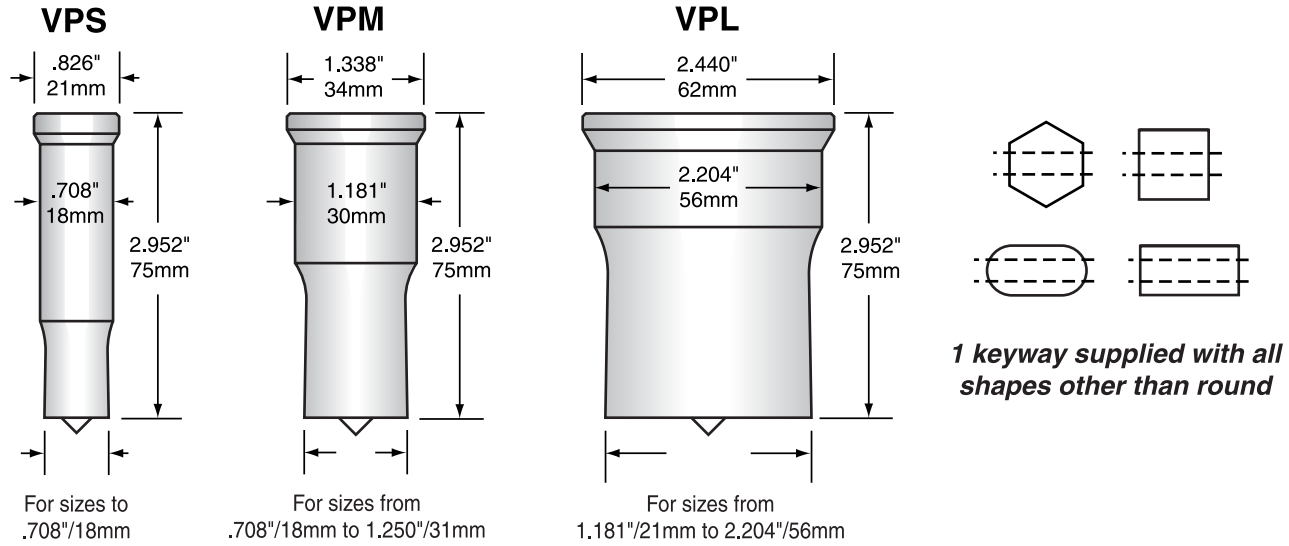
100XX TOOLING



Specify Shear Face Type.
Flat face with center point supplied
if no shear is requested.

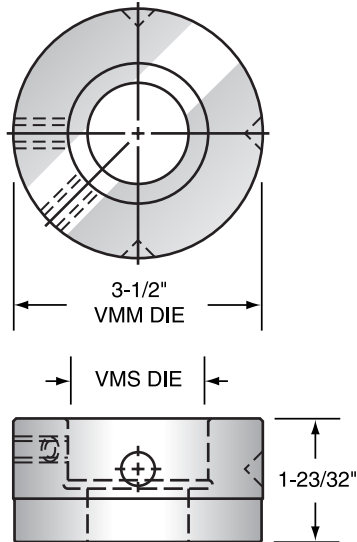
APS-2972

VOORTMAN(TM)

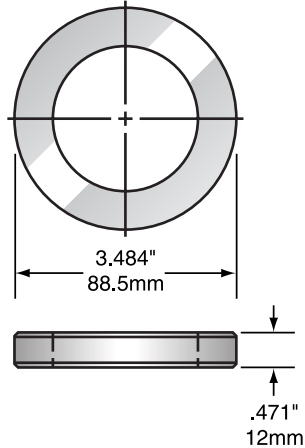


VOORTMAN(TM)

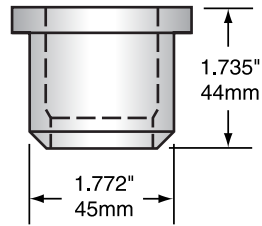
DIE REDUCER FOR VMM DIE TO VMS DIE



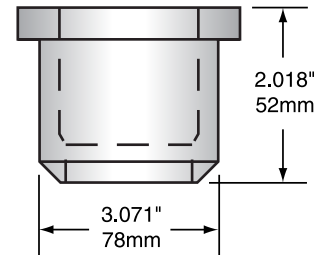
VMM DIE LINER



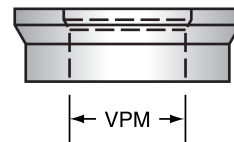
VPM SLEEVE



VPL SLEEVE



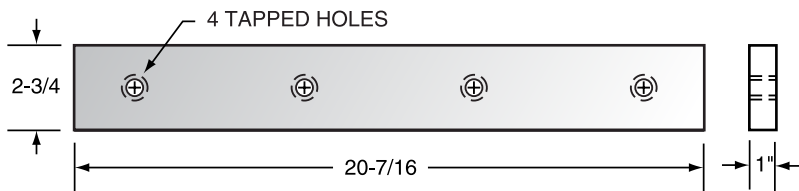
SLEEVE FOR VPL PUNCH TO VPM PUNCH



SHEAR BLADES

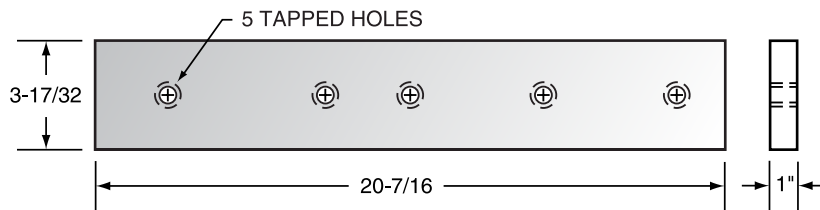
UPPER BLADE VOORTMAN #V6070001

STOCK



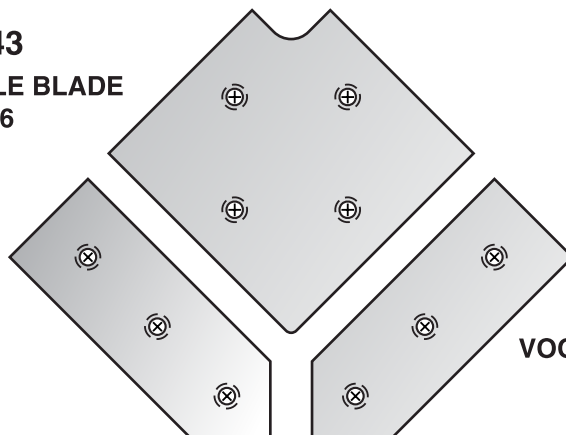
LOWER BLADE VOORTMAN #V6070002

STOCK



APS-8843 VOORTMAN ANGLE BLADE #V6080006

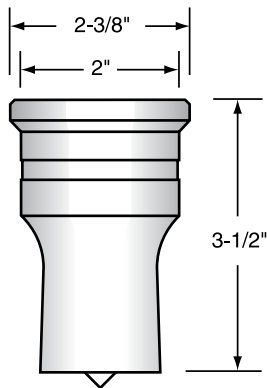
STOCK



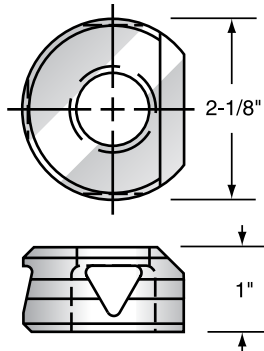
LOWER APS-8844 VOORTMAN ANGLE BLADE #V6080005

STOCK

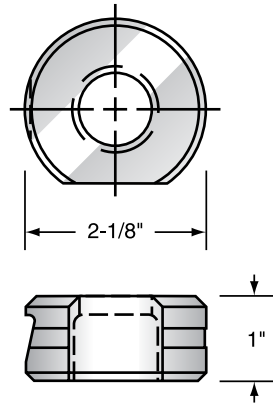
WHITNEY



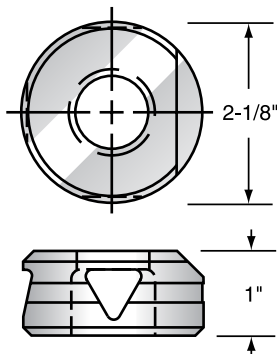
166 EXPRESS



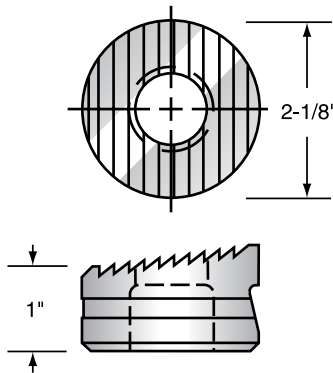
347F/45 EXPRESS



347F EXPRESS

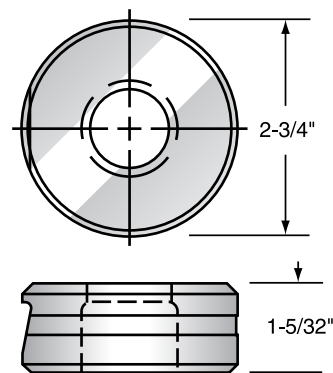


347/45 EXPRESS



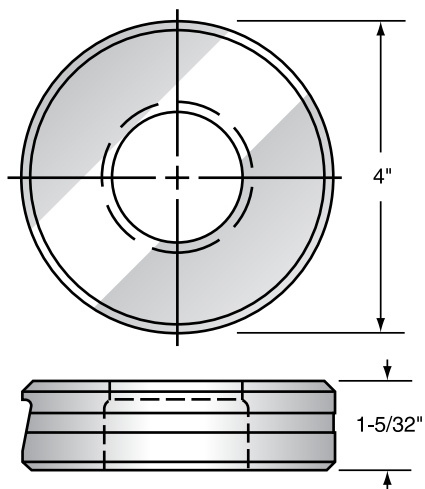
347BC EXPRESS

*Bevel-corrugated
available in all die styles.*



346 EXPRESS

*Note: two set screw spots
and one locating pin
supplied on all shapes.*



345 EXPRESS

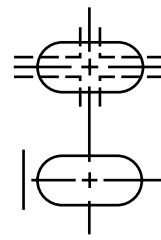
Punch

#740	=	#163
#770	=	#164
#790XX	=	#164XX
#750	=	#166

Die

#720	=	#348
#740	=	#347
#790XX	=	#347XX
#750	=	#346
#760	=	#345
#490	=	#347/F45

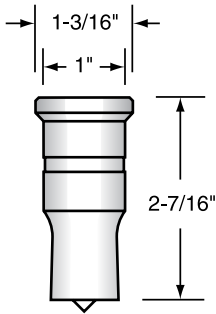
*American Punch recommends a
keyway in all shaped punches
and set screw spots on all
shaped dies.*



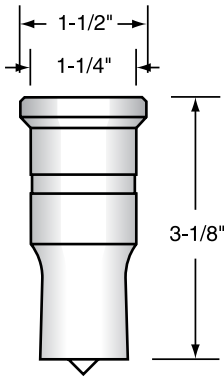
*Standard keyway
dimensions
1/4" wide X
1/8" deep*

Express items will ship in 1 to 2 days.

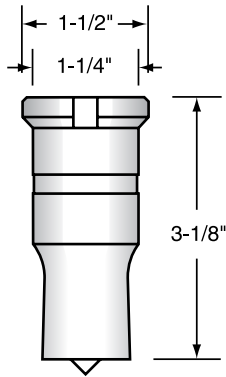
WHITNEY



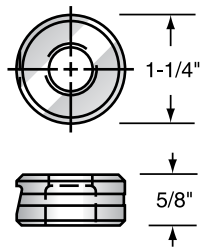
163 STOCK



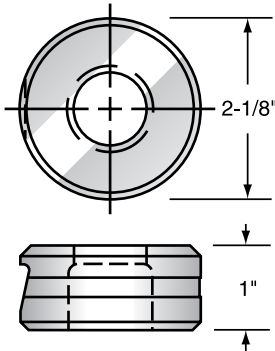
164 STOCK



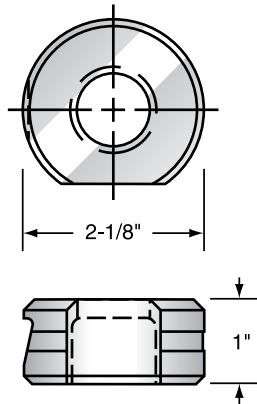
164XX EXPRESS



348 STOCK

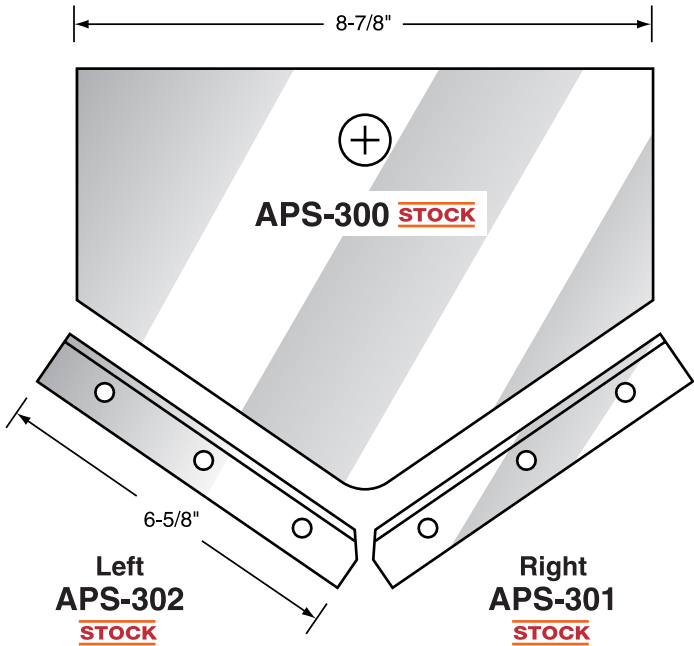


347 STOCK



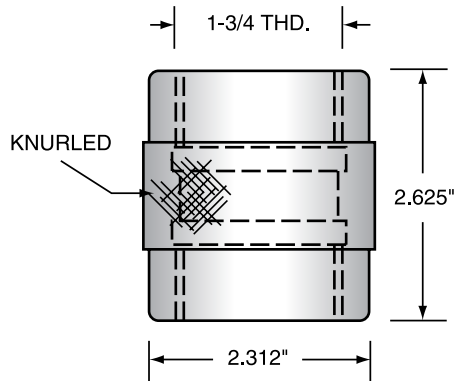
347XX EXPRESS

Pin supplied on shapes other than round.



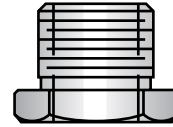
WHITNEY

THREADED PUNCH SLEEVE

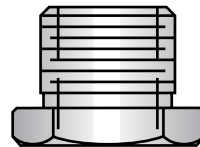


APS-3951

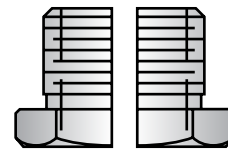
COUPLING NUTS



163-C STOCK



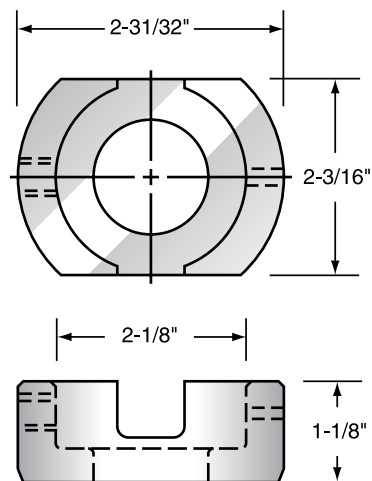
164-C STOCK



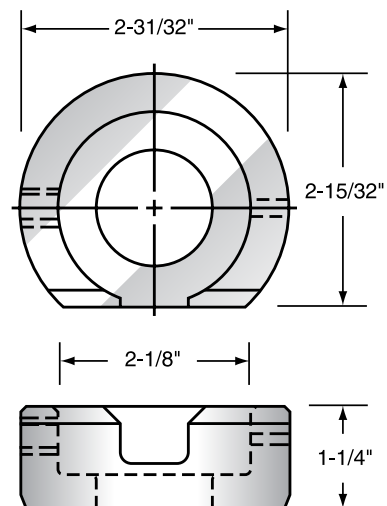
164-C Split STOCK

For Oversize Punches

DIE SLEEVES

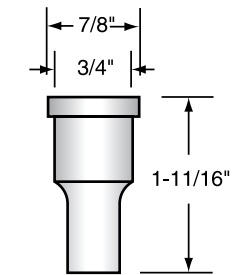


APS-530 STOCK

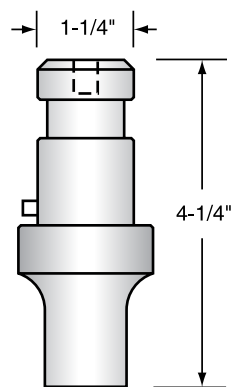


APS-531 STOCK

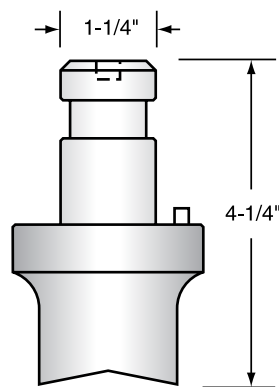
WHITNEY



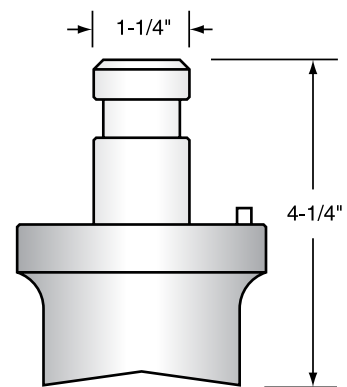
IPTC
Sizes up to 3/4"



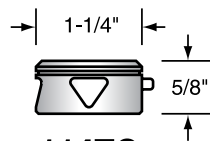
1TC
Sizes 3/4 to 1-23/32"



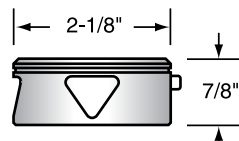
2TC
Sizes 1-23/32 to 2-15/32"



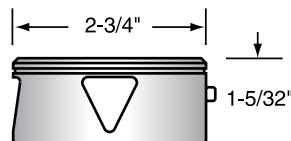
3TC
Sizes 2-15/32 to 5"



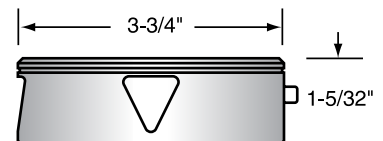
114TC
Sizes 3/32 to 13/16"



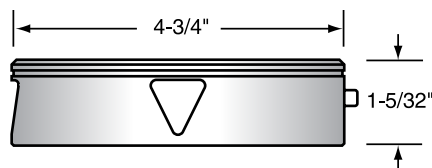
218TC
Sizes 3/4 to 1-1/2"



234TC
Sizes 1-1/2 to 2"



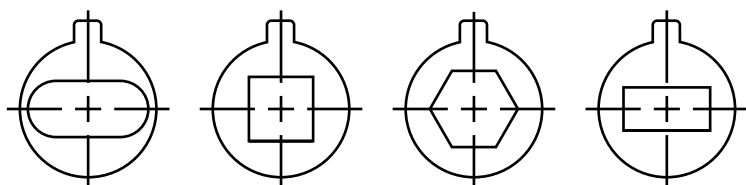
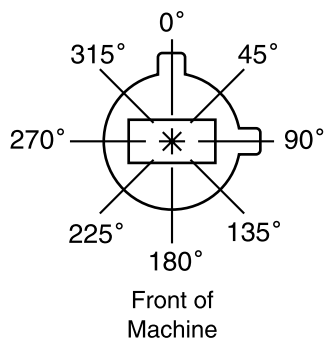
334TC
Sizes 2 to 3"



434TC
Sizes 3 to 4"

*Quick Change style dies available:
28XX, 38XX, 36TC and 37TC.
Please specify when ordering.*

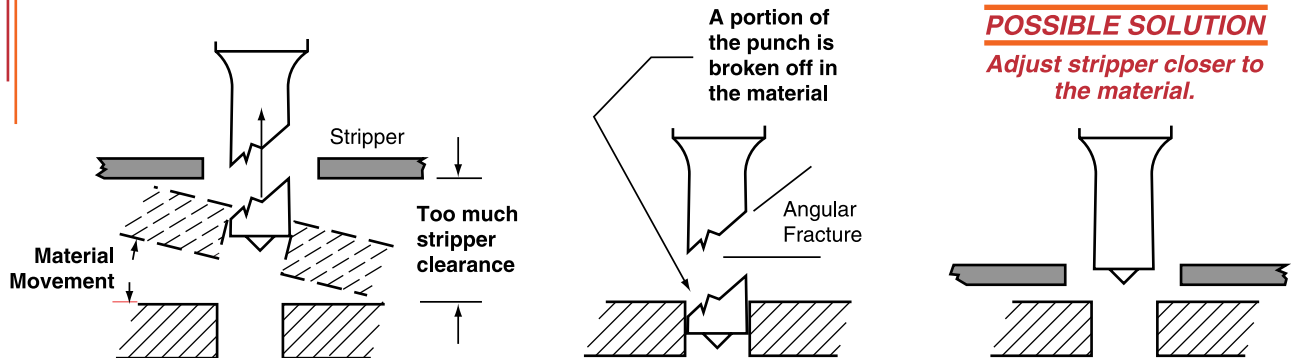
Shaped punches and dies are furnished with one indexing pin. This allows the tools to be used in either the 0° or 90° position.



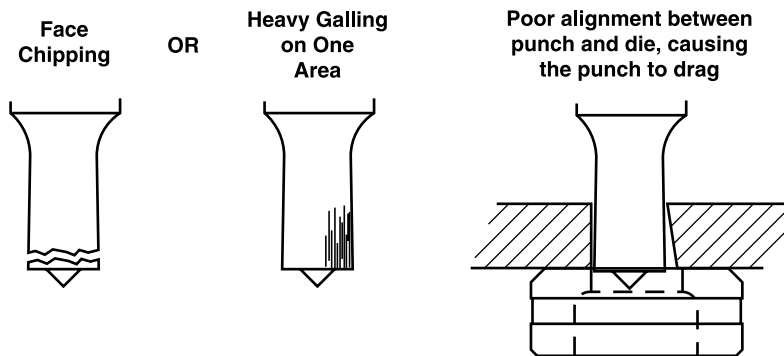
All of these shapes are supplied with the pin in this designated position.

PUNCH TIPS

STRIPPING FAILURE

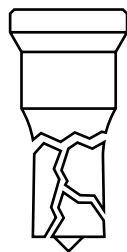


CHIPPING AND GALLING



POSSIBLE SOLUTION
Adjust alignment between punch and die. Equal clearance all around.

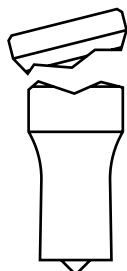
COMPRESSIVE FAILURE



"Compressive Failure" occurs when the compressive strength of the punch has been exceeded and the entire working end shatters. This is caused by attempting to punch extremely hard or thick materials, or complete misalignment of punch and die.

POSSIBLE SOLUTION
Try an American Punch "ALPHA PUNCH".

HEAD BREAKING OFF



A loose coupling nut, worn punch stem or coupling nut will cause the head to fracture.

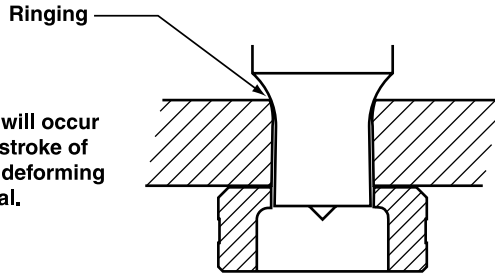
POSSIBLE SOLUTION
Re-tighten coupling nut after the first several hits, and periodically throughout the day.

Check the face of the stem. Must be smooth and flat.

PUNCH TIPS

RINGING

"Ringing" will occur with each stroke of the press, deforming the material.

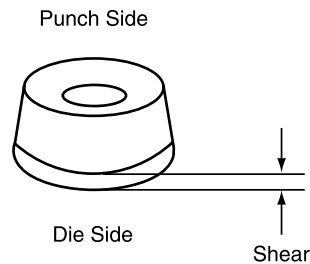


"Ringing" the punch occurs when the material is thicker than the working length of the punch or the punch is entering into the die too far.

POSSIBLE SOLUTION

Adjust stroke length to enter into the die a maximum of 1/16".

CHECK THE SLUG



When punching mild steel 1/8" or thicker, the die side of the slug will be dished. The periphery of the slug will be shiny or sheared, for a distance of 10% to 20% of the material thickness.

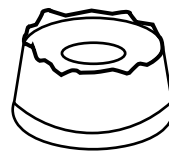
The punch side will have the center point indentation and a slight burr.



Double shear indicates not enough clearance between punch and die.

POSSIBLE SOLUTION

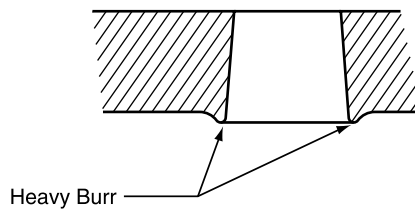
Increase punch to die clearance.



Uneven burr indicates worn tools or misalignment.

POSSIBLE SOLUTION

Check alignment and condition of punch and die.



Heavy burr on die side of material indicates too much clearance between punch and die.

POSSIBLE SOLUTION

Decrease die clearance.