

# PRESS BRAKE TOOLING

Quality from The Cutting Edge of Fabrication



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## Features of Amada Tooling

**Standardized** Amada tooling is available in Long (32.87") and Short (16.34") lengths, providing for easy, one-operator set-up.

**Sectionalized** Amada tooling is sectionalized as follows for convenience and efficiency:

**Punch (Inches):**  $.39 + .59 + .79 + 1.57 + 1.97 + 3.94 + 3.94 + 7.87 + 11.81 = 32.87"$

**Die (Inches):**  $.39 + .59 + .79 + 1.57 + 1.97 + 3.94 + 7.87 + 15.75 = 32.87"$

**Variety of Standardized Shapes** Amada tooling is available in a wide variety of shapes to meet almost any forming need. You're assured of finding the right tooling to perform your bending operation in the most precise, efficient manner.

**Interchangeable** Amada tooling is designed for interchangeable use on all Amada press brakes.

# COMBINATION OF DIES & PUNCHES

<p><b>1</b> 90° BENDING (27GA —11GA)</p> <p>STANDARD DIE HOLDER</p>	<p><b>2</b> 90° BENDING STRAIGHT PUNCH (27GA —14GA)</p> <p>STANDARD DIE HOLDER</p>	<p><b>3</b> 90° BENDING GOOSENECK (27GA —8GA)</p> <p>STANDARD DIE HOLDER</p>	<p><b>4</b> 90° BENDING DOOR SASH (27GA —14GA)</p>
<p><b>5</b> 90° BENDING DOOR SASH (27GA —14GA)</p>	<p><b>6</b> 90° BENDING (3/8" —1/2")</p>	<p><b>7</b> RADIUS BENDING (18GA —16GA)</p>	<p><b>8</b> RADIUS BENDING URETHANE DIE (27GA —11GA)</p>
<p><b>9</b> ACUTE ANGLE BENDING (27GA —14GA)</p> <p>STANDARD DIE HOLDER</p>	<p><b>10</b> ACUTE ANGLE BENDING (14GA —10GA)</p>	<p><b>11</b> ACUTE ANGLE BENDING (10GA —6GA)</p>	<p><b>12</b> NARROW BOX BENDING</p> <p>STANDARD PUNCH</p>
<p><b>13</b> HEMMING (27GA —16GA)</p>	<p><b>14</b> HEMMING (27GA —11GA)</p>	<p><b>15</b> MARK FREE BENDING</p> <p>STANDARD 1" OR 2" DIE WITH RADIUS OPENING</p>	<p><b>16</b> MATCHING 2-V DIES WITH SECTIONALIZED 2-V DIES</p> <p>29100 29300</p>

# INCREASE YOUR BENDING PRODUCTIVITY WITH ONE TOUCH

## AMADA ONE TOUCH PUNCH HOLDER

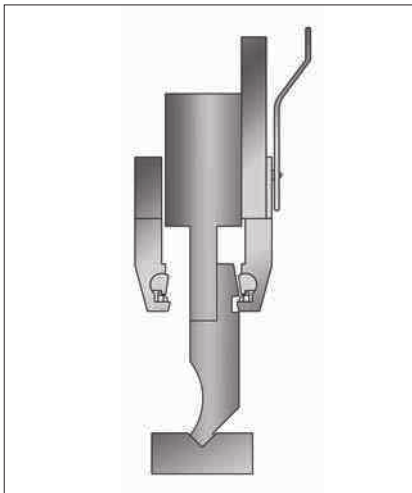


Amada's One Touch Holder and tooling allows the brake operator to change punches on the press brake quickly and safely without the need for a wrench. The patented One Touch design allows you to decrease your tooling changeover time, thereby increasing your bending productivity. One Touch Tool Holders and accessories are available for all Amada press brake models.

### **Fast and Easy Tool Set-up**

With the One Touch Punch Holder, installation is a simple two-step process.

- Simply slide the grooved punch into the One Touch Punch Holder.
- Turn the lever to secure the punch in the One Touch Punch Holder.



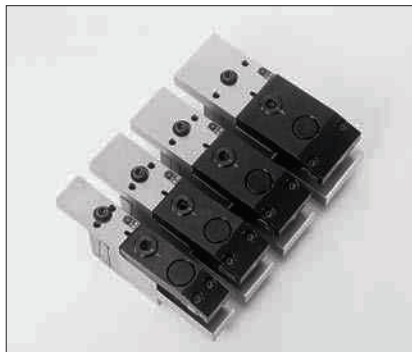
U.S. Patents: No. 5,513,514 No. 5,685,191 No. 5,642,642  
No. 5,511,407 No. 5,619,885

ORDER CODE NUMBER	PRICE
902000	\$400.00

Reduce tooling set-up time  
Increase safety with the drop-prevention feature  
Insure properly tightened tools every time  
Increase productivity of the bending process  
No tools required to tighten punch

For use on ZII style RG model press brake and all FBD, HFB & HFE model press Brakes.

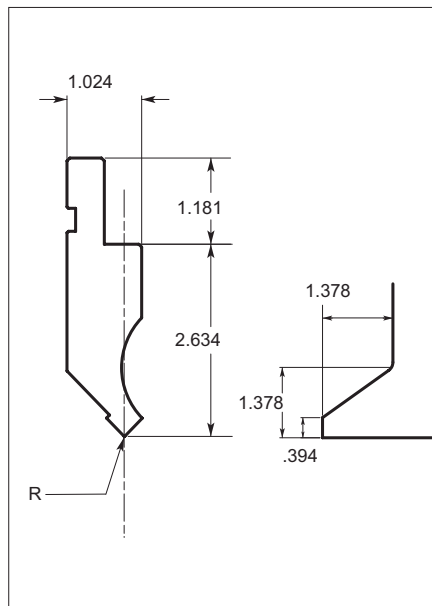
## NARROW DISTANCE PIECE SET



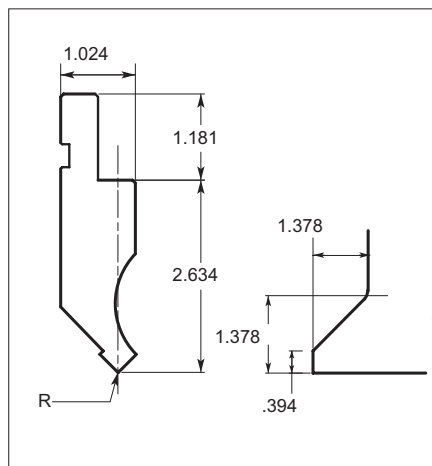
ORDER CODE NUMBER	PRICE
908000	\$905.00

These narrow punch holders replace the standard One Touch punch holder when the standard size of punch holder interferes with the part being formed. These allow clearance for side flanges that would normally hit the standard punch holder, while holding the punch securely during use. Set contains widths of 25mm, 35mm, 40mm and 50mm.

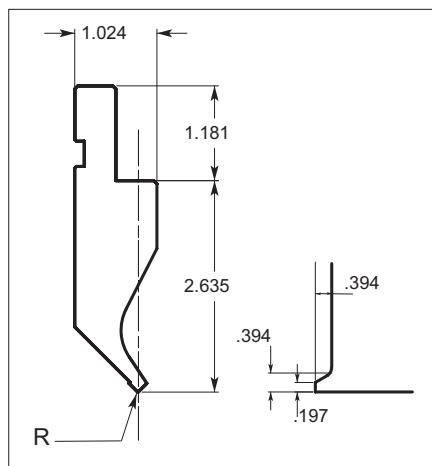
# 88° & 90° PUNCHES



TOOL NUMBER	ORDER CODE NUMBER		EDGE RADIUS (IN)	ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
	STANDARD	ONE TOUCH				32.87" (835 mm)	16.34" (415 mm)
4 SOLID	60402	00402	.008	88°	30	\$335.00	\$194.00
	60408	00408	.030				
	60415	00415	.060				
	60423	00423	.090				
	60430	00430	.120				
	60448	00448	.188				
148 SECTIONALIZED	64802	14802	.008	88°	14	\$480.00	—
	64808	14808	.030				
	64815	14815	.060				
	64823	14823	.090				
	64830	14830	.120				
	64848	14848	.188			\$502.00	—



TOOL NUMBER	ORDER CODE NUMBER		EDGE RADIUS (IN)	ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
	STANDARD	ONE TOUCH				32.87" (835 mm)	16.34" (415 mm)
16 SOLID	61602	01602	.008	90°	30	\$335.00	\$194.00
	61608	01608	.030				
	61615	01615	.060				
	61623	01623	.090				
	61630	01630	.120				
147 SECTIONALIZED	64702	14700	.008	90°	14	\$480.00	—
	64708	14708	.030				
	64715	14715	.060				
	64723	14723	.090				
	64730	14730	.120				

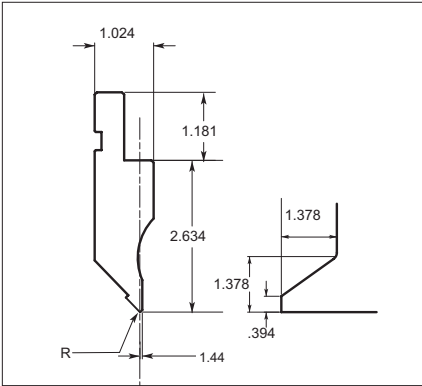


TOOL NUMBER	ORDER CODE NUMBER		EDGE RADIUS (IN)	ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
	STANDARD	ONE TOUCH				32.87" (835 mm)	16.34" (415 mm)
116 SOLID	71602	11600	.008	90°	6	\$450.00	\$256.00
116SS* SECTIONALIZED	71682	11680	.008	90°	3	\$590.00	—

Hardness HRC is 45-49.

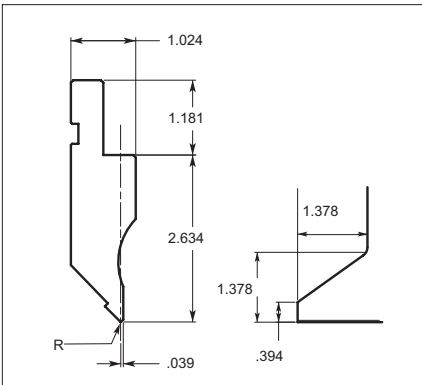
\* Semi-Standard Length (Ear Type): .39 + .59 + .79 + 1.57 + 1.97 + 3.94 + 3.94 + 6.50 + 11.81 + = 31.50" (1 set)

# 88° & 90° NARROW RELIEF PUNCH



TOOL NUMBER	ORDER CODE NUMBER		EDGE		ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
	STANDARD	ONE TOUCH	RADIUS	ANGLE		32.87" (835 mm)	16.34" (415 mm)
60492 SOLID	60492	00490	.008	88°	24	\$474.00	\$252.00
64892 SECTIONALIZED	64892	14890	.008	88°	12	\$576.00	—

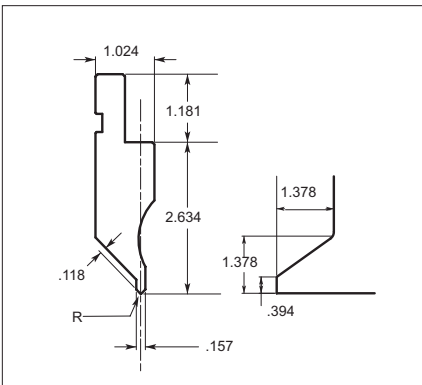
Hardness HRC is 45-49.



TOOL NUMBER	ORDER CODE NUMBER		EDGE		ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
	STANDARD	ONE TOUCH	RADIUS	ANGLE		32.87" (835 mm)	16.34" (415 mm)
61692 SOLID	61692	01690	.008	90°	24	\$474.00	\$252.00
64792 SECTIONALIZED	64792	14790	.008	90°	12	\$576.00	—

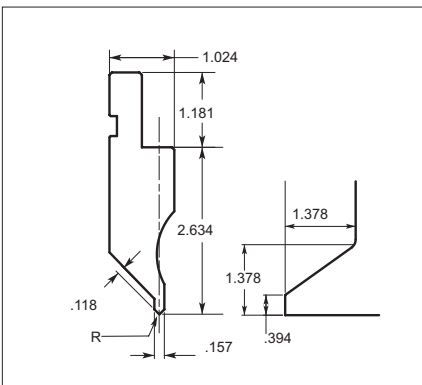
Hardness HRC is 45-49.

# 88° & 90° MULTI RELIEF NARROW PUNCH



TOOL NUMBER	ORDER CODE NUMBER		EDGE		ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
	STANDARD	ONE TOUCH	RADIUS	ANGLE		32.87" (835 mm)	16.34" (415 mm)
60482 SOLID	60482	00480	.008	88°	12	\$514.00	\$276.00
64882 SECTIONALIZED	64882	14882	.008	88°	6	\$618.00	—

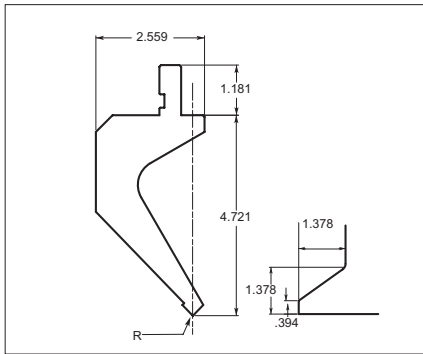
Hardness HRC is 45-49.



TOOL NUMBER	ORDER CODE NUMBER		EDGE		ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
	STANDARD	ONE TOUCH	RADIUS	ANGLE		32.87" (835 mm)	16.34" (415 mm)
61682 SOLID	61682	01680	.008	90°	12	\$514.00	\$276.00
64782 SECTIONALIZED	64782	14780	.008	90°	6	\$618.00	—

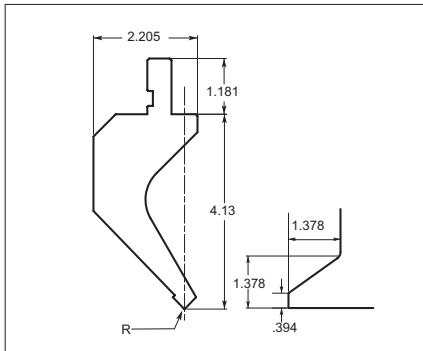
Hardness HRC is 45-49.

# 88° & 90° GOOSENECK PUNCHES



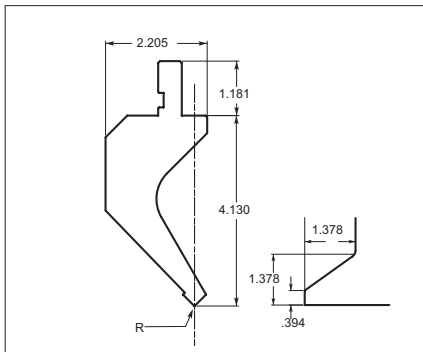
TOOL NUMBER	ORDER CODE NUMBER		EDGE		ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
	STANDARD	ONE TOUCH	RADIUS	ANGLE		32.87" (835 mm)	16.34" (415 mm)
47 SOLID	74702	04702	.008	88°	15	\$1,350.00	\$785.00
52 SECTIONALIZED	75202	05202	.008	88°	14	\$1,750.00	—

Hardness HRC is 45-49.



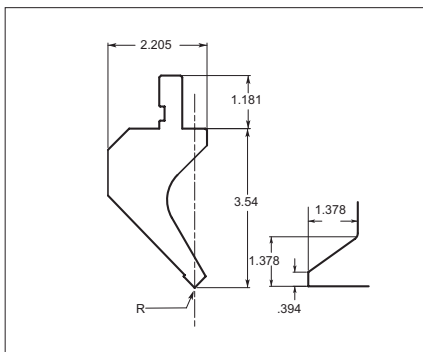
TOOL NUMBER	ORDER CODE NUMBER		EDGE		ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
	STANDARD	ONE TOUCH	RADIUS	ANGLE		32.87" (835 mm)	16.34" (415 mm)
45 SOLID	64502	04502	.008	88°	15	\$785.00	\$425.00
	64508	04508	.030				
	64515	04515	.060				
	64530	04530	.120				
50 SECTIONALIZED	65002	05002	.008	88°	14	\$994.00	—
	65008	05008	.030				
	65015	05015	.060				
	65030	05030	.120				

Hardness HRC is 45-49.



TOOL NUMBER	ORDER CODE NUMBER		EDGE		ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
	STANDARD	ONE TOUCH	RADIUS	ANGLE		32.87" (835 mm)	16.34" (415 mm)
46 SOLID	64602	04600	.008	90°	15	\$785.00	\$425.00
51 SECTIONALIZED	65102	05102	.008	90°	14	\$994.00	—

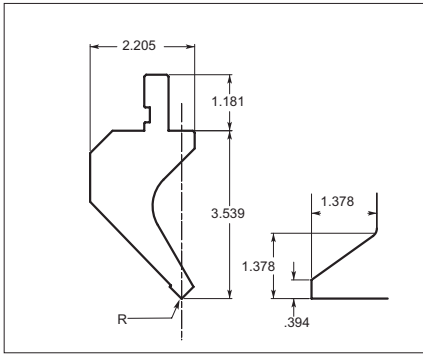
Hardness HRC is 45-49.



TOOL NUMBER	ORDER CODE NUMBER		EDGE		ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
	STANDARD	ONE TOUCH	RADIUS	ANGLE		32.87" (835 mm)	16.34" (415 mm)
45.2 SOLID	65202	45202	.008	88°	21	\$720.00	\$382.00
	65208	45208	.030				
	65215	45215	.060				
	65230	45230	.120				
150 SECTIONALIZED	75002	15002	.008	88°	14	\$942.00	—
	75008	15008	.030				
	75015	15015	.060				
	75030	15030	.120				

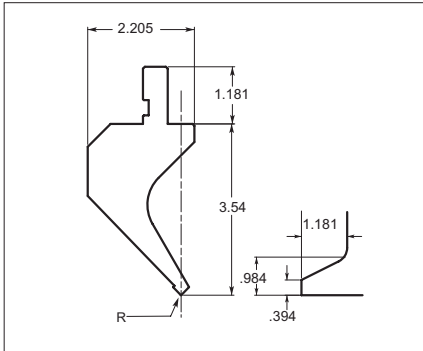
Hardness HRC is 45-49.

# 88° & 90° GOOSENECK PUNCHES



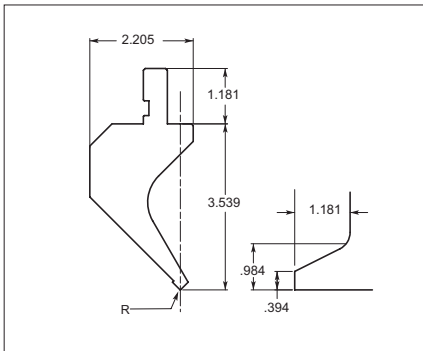
TOOL NUMBER	ORDER CODE NUMBER		EDGE		ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
	STANDARD	ONE TOUCH	RADIUS	ANGLE		32.87" (835 mm)	16.34" (415 mm)
462 SOLID	66202	46202	.008	90°	21	\$753.00	\$400.00
151 SECTIONALIZED	75102	15102	.008	90°	14	\$960.00	—

Hardness HRC is 45-49.



TOOL NUMBER	ORDER CODE NUMBER		EDGE		ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
	STANDARD	ONE TOUCH	RADIUS	ANGLE		32.87" (835 mm)	16.34" (415 mm)
453 SOLID	65302	45302	.008	88°	15	\$753.00	\$400.00
	65308	45308	.030				
	65315	45315	.060				
	65330	45330	.120				
155 SECTIONALIZED	65502	15502	.008	88°	9	\$947.00	—
	65508	15508	.030				

Hardness HRC is 45-49.

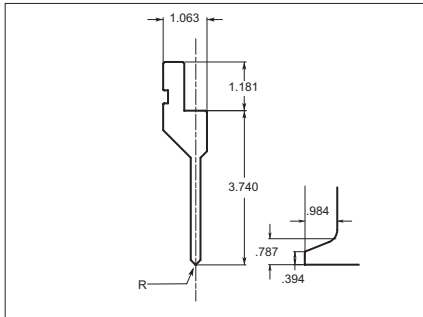


TOOL NUMBER	ORDER CODE NUMBER		EDGE		ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
	STANDARD	ONE TOUCH	RADIUS	ANGLE		32.87" (835 mm)	16.34" (415 mm)
463 SOLID	66302	46302	.008	90°	15	\$753.00	\$400.00
156 SECTIONALIZED	65602	15602	.008	90°	9	\$947.00	—

Hardness HRC is 45-49.

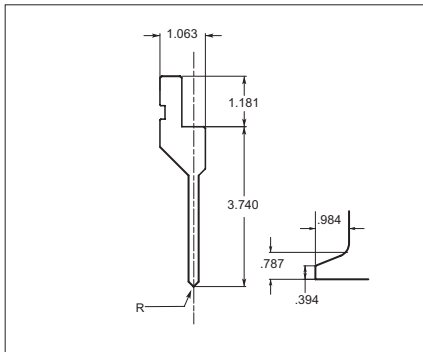


# 88° & 90° SASH PUNCHES



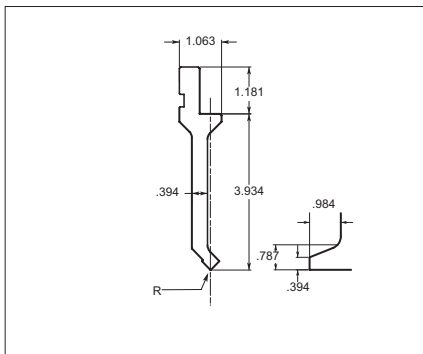
TOOL NUMBER	ORDER CODE NUMBER		EDGE		ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
	STANDARD	ONE TOUCH	RADIUS	ANGLE		32.87" (835 mm)	16.34" (415 mm)
109 SOLID	60902	10902	.008	88°	15	\$550.00	\$291.00
107 SECTIONALIZED	60700	10700	.008	88°	3.7	\$900.00	—

Hardness HRC is 45-49.



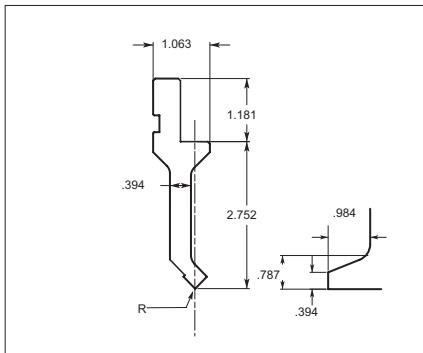
TOOL NUMBER	ORDER CODE NUMBER		EDGE		ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
	STANDARD	ONE TOUCH	RADIUS	ANGLE		32.87" (835 mm)	16.34" (415 mm)
108 SOLID	70802	10800	.008	90°	15	\$550.00	\$291.00
106 SECTIONALIZED	60600	10600	.008	90°	3.7	\$900.00	—

Hardness HRC is 45-49.



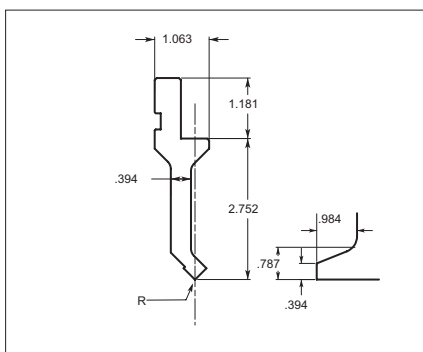
TOOL NUMBER	ORDER CODE NUMBER		EDGE		ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
	STANDARD	ONE TOUCH	RADIUS	ANGLE		32.87" (835 mm)	16.34" (415 mm)
202 SOLID	60200	20200	.008	88°	9	\$725.00	\$421.00
20280 SECTIONALIZED	60282	20280	.008	88°	5	\$963.00	—

Hardness HRC is 45-49.



TOOL NUMBER	ORDER CODE NUMBER		EDGE		ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
	STANDARD	ONE TOUCH	RADIUS	ANGLE		32.87" (835 mm)	16.34" (415 mm)
200 SOLID	60002	20002	.008	88°	9	\$470.00	\$274.00
200SS* SECTIONALIZED	60082	20080	.008	88°	5	\$517.00	—

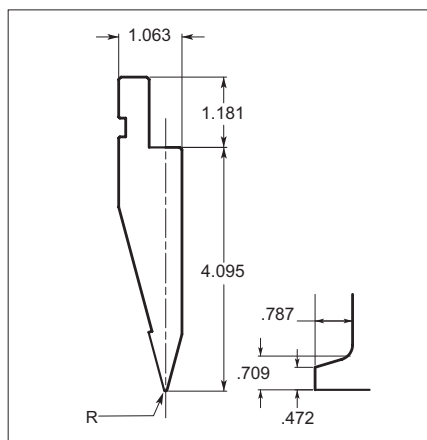
\* Semi-Standard Length (Ear Type): .39 + .59 + .79 + 1.57 + 1.97 + 3.94 + 3.94 + 6.50 + 11.81 = 31.50" (1 set)



TOOL NUMBER	ORDER CODE NUMBER		EDGE		ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
	STANDARD	ONE TOUCH	RADIUS	ANGLE		32.87" (835 mm)	16.34" (415 mm)
201 SOLID	60102	20102	.008	90°	9	\$514.00	\$291.00
201SS* SECTIONALIZED	60182	20100	.008	90°	5	\$544.00	—

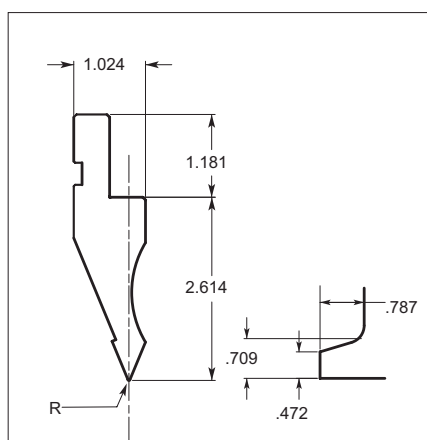
\* Semi-Standard Length (Ear Type): .39 + .59 + .79 + 1.57 + 1.97 + 3.94 + 3.94 + 6.50 + 11.81 = 31.50" (1 set)

# ACUTE ANGLE PUNCHES



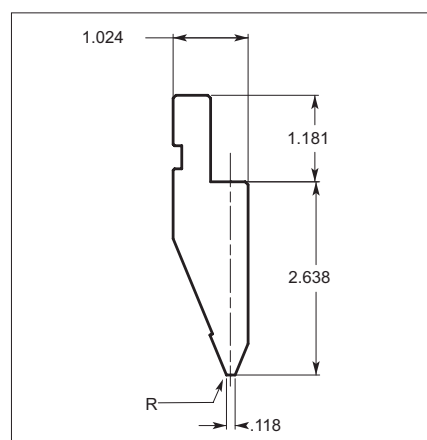
TOOL NUMBER	ORDER CODE NUMBER		EDGE		ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
	STANDARD	ONE TOUCH	RADIUS	ANGLE		32.87" (835 mm)	16.34" (415 mm)
210 SOLID	61000	21000	.026	30°	30	\$600.00	\$320.00
210SS* SECTIONALIZED	61086	21080	.026	30°	9	\$750.00	—

\* Semi—Standard Length (Ear Type): .39 + .59 + .79 + 1.57 + 1.97 + 3.94 + 3.94 + 6.50 + 11.81 = 31.50" (1 set)  
Hardness HRC is 45-49.



TOOL NUMBER	ORDER CODE NUMBER		EDGE		ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
	STANDARD	ONE TOUCH	RADIUS	ANGLE		32.87" (835 mm)	16.34" (415 mm)
8 SOLID	60800	00800	.015	45°	18	\$390.00	\$212.00
49 SECTIONALIZED	64902	04902	.015	45°	9	\$483.00	—

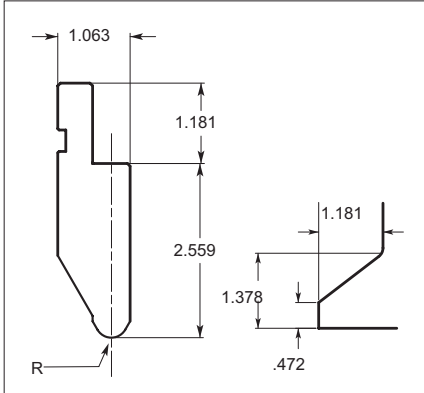
Hardness HRC is 45-49.



TOOL NUMBER	ORDER CODE NUMBER		EDGE		ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
	STANDARD	ONE TOUCH	ANGLE	ANGLE		32.87" (835 mm)	16.34" (415 mm)
215	71500	21500		45°	30	\$491.00	\$254.00

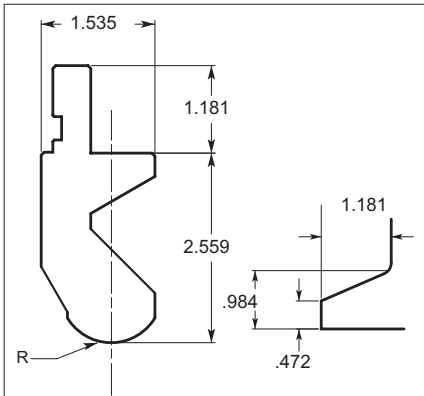
Hardness HRC is 45-49.

# RADIUS PUNCHES



TOOL NUMBER	ORDER CODE NUMBER		EDGE		ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
	STANDARD	ONE TOUCH	RADIUS	ANGLE		32.87" (835 mm)	16.34" (415 mm)
3 SOLID	60300	00300	.240	60°	30	\$364.00	\$236.00
138 SECTIONALIZED	73800	13800	.240	60°	30	\$710.00	—

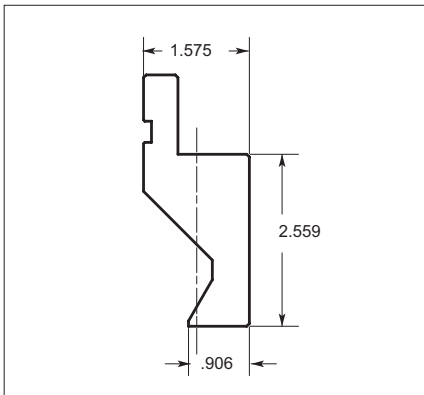
Hardness HRC is 45-49.



TOOL NUMBER	ORDER CODE NUMBER		EDGE (R)	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
	STANDARD	ONE TOUCH			32.87" (835 mm)	16.34" (415 mm)
230 SOLID	63000	23000	0.689	30	\$729.00	\$374.00
231 SECTIONALIZED	63100	23100	0.689	30	\$839.00	—

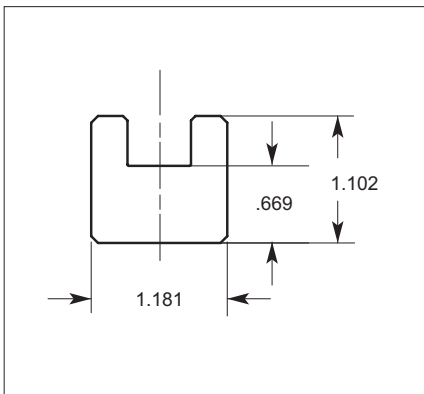
Hardness HRC is 45-49.

# FLATTENING PUNCHES



TOOL NUMBER	ORDER CODE NUMBER		ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
	STANDARD	ONE TOUCH		32.87" (835 mm)	16.34" (415 mm)
220	62000	22000	30	\$536.00	\$294.00

Hardness HRC is 45-49.

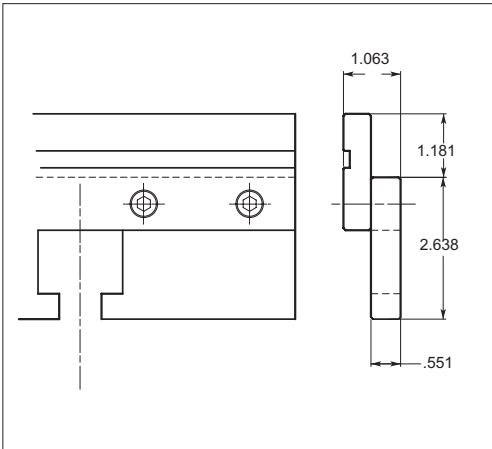


TOOL NUMBER	ORDER CODE NUMBER	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
			32.87" (835 mm)	16.34" (415 mm)
20	02000	30	\$132.00	\$79.00

Mounts in #15 Punch Holder (shown on next page)  
Hardness HRC is 23-28.

# PUNCH HOLDERS & RADIUS RULERS

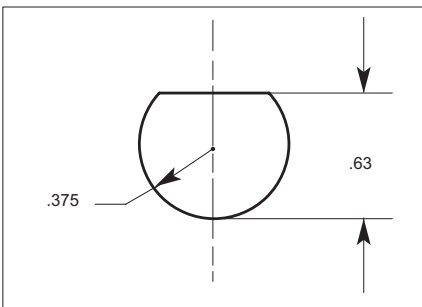
## PUNCH HOLDER



TOOL NUMBER	ORDER CODE NUMBER		ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
	STANDARD	ONE TOUCH		32.87" (835 mm)	16.34" (415 mm)
15	61500	01500	—	\$284.00	\$169.00

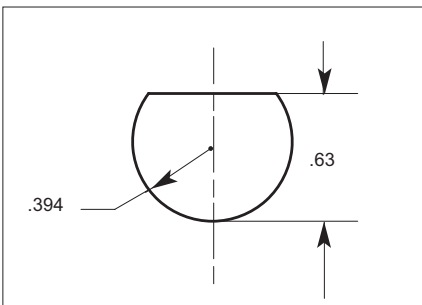
Hardness HRC is 23-28.

## RADIUS RULERS



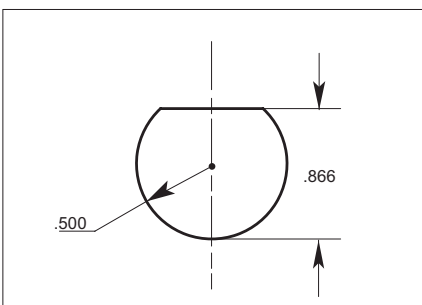
TOOL NUMBER	ORDER CODE NUMBER	EDGE (R)	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
01737	01737	.375	30	\$128.00	\$69.00

Hardness HRC is 23-28.  
Mounts on #15 Punch Holder.



TOOL NUMBER	ORDER CODE NUMBER	EDGE (R)	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
01710	01710	.394	30	\$91.00	\$51.00

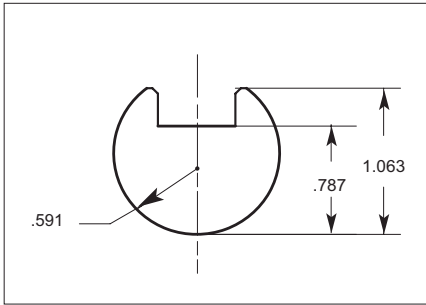
Hardness HRC is 23-28.  
Mounts on #15 Punch Holder.



TOOL NUMBER	ORDER CODE NUMBER	EDGE (R)	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
01750	01750	.500	30	\$135.00	\$87.00

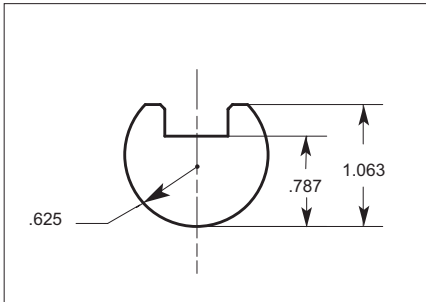
Hardness HRC is 23-28.  
Mounts on #15 Punch Holder.

# PUNCH HOLDERS & RADIUS RULERS



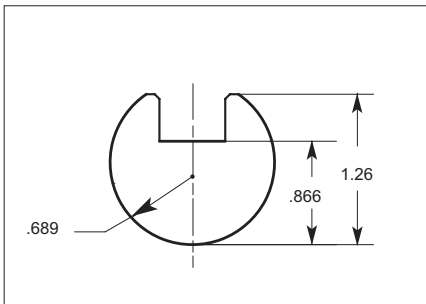
TOOL NUMBER	ORDER CODE NUMBER	EDGE (R)	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
01715	01715	.591	30	\$119.00	\$68.00

Hardness HRC is 23-28.  
Mounts on #15 Punch Holder.



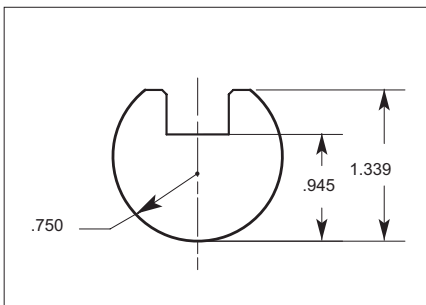
TOOL NUMBER	ORDER CODE NUMBER	EDGE (R)	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
01762	01762	.625	30	\$141.00	\$90.00

Hardness HRC is 23-28.  
Mounts on #15 Punch Holder.



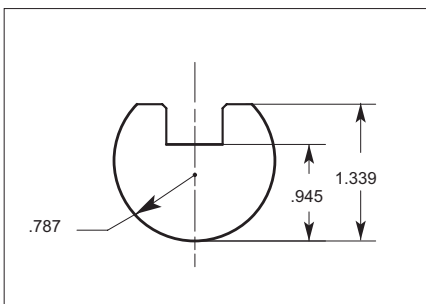
TOOL NUMBER	ORDER CODE NUMBER	EDGE (R)	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
01717	01717	.689	30	\$125.00	\$75.00

Hardness HRC is 23-28.  
Mounts on #15 Punch Holder.



TOOL NUMBER	ORDER CODE NUMBER	EDGE (R)	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
01775	01775	.750	30	\$177.00	\$119.00

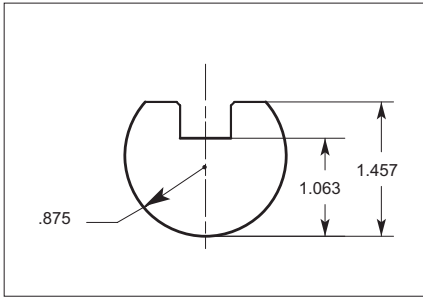
Hardness HRC is 23-28.  
Mounts on #15 Punch Holder.



TOOL NUMBER	ORDER CODE NUMBER	EDGE (R)	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
01720	01720	.787	30	\$154.00	\$83.00

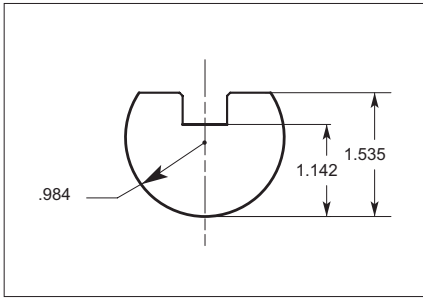
Hardness HRC is 23-28.  
Mounts on #15 Punch Holder.

# PUNCH HOLDERS & RADIUS RULERS



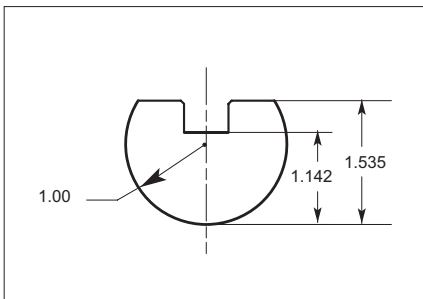
TOOL NUMBER	ORDER CODE NUMBER	EDGE (R)	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
01787	01787	.875	30	\$231.00	\$134.00

Hardness HRC is 23-28.  
Mounts on #15 Punch Holder.



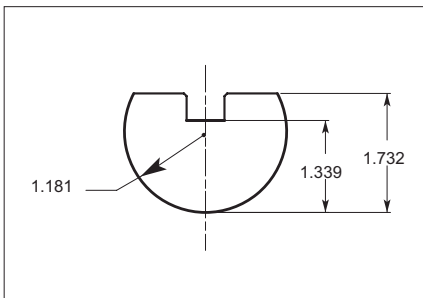
TOOL NUMBER	ORDER CODE NUMBER	EDGE (R)	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
01725	01725	.984	30	\$179.00	\$110.00

Hardness HRC is 23-28.  
Mounts on #15 Punch Holder.



TOOL NUMBER	ORDER CODE NUMBER	EDGE (R)	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
01700	01700	1.000	30	\$216.00	\$133.00

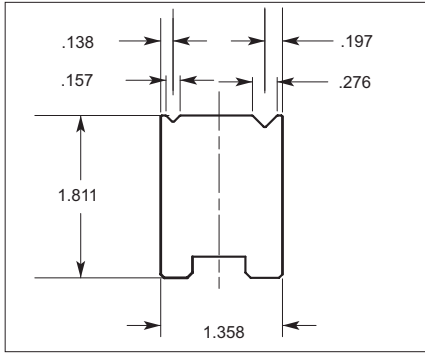
Hardness HRC is 23-28.  
Mounts on #15 Punch Holder.



TOOL NUMBER	ORDER CODE NUMBER	EDGE (R)	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
01730	01730	1.181	30	\$219.00	\$129.00

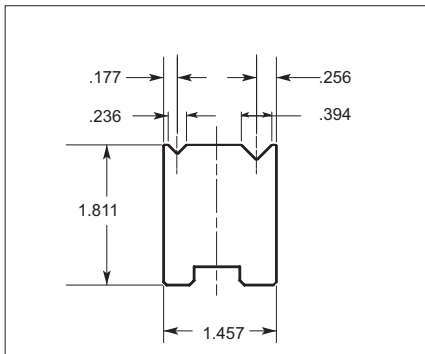
Hardness HRC is 23-28.  
Mounts on #15 Punch Holder.

# QUICK CHANGE 2 "V" DIES



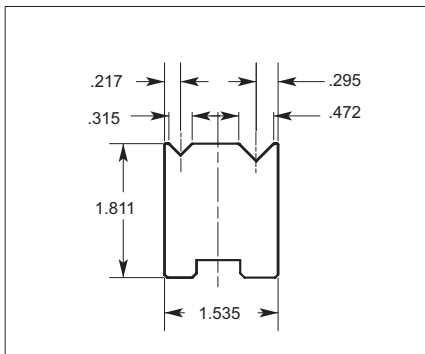
TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
501 SOLID	50190	90°	18	\$398.00	\$225.00
501 SECTIONALIZED	50180	90°	18	\$480.00	—

Hardness HRC is 65-69.



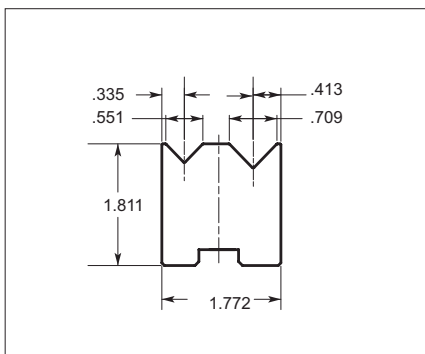
TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
502 SOLID	50290	90°	21	\$398.00	\$225.00
502 SECTIONALIZED	50280	90°	21	\$480.00	—

Hardness HRC is 65-69.



TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
503 SOLID	50390	90°	21	\$398.00	\$225.00
503 SECTIONALIZED	50380	90°	21	\$480.00	—

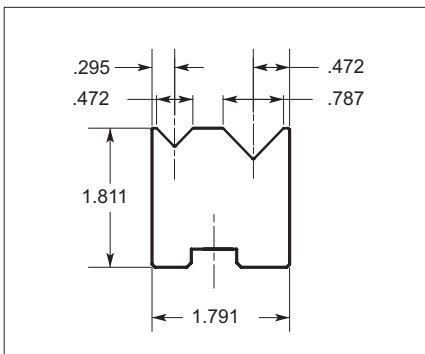
Hardness HRC is 65-69.



TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
504 SOLID	50490	88°	30	\$398.00	\$225.00
504 SECTIONALIZED	50480	88°	30	\$480.00	—

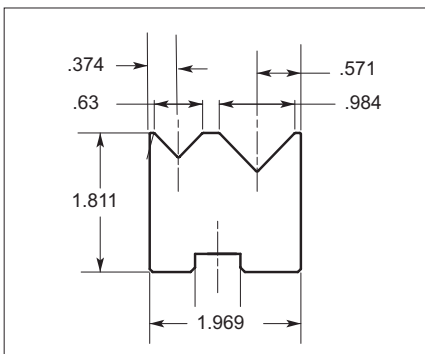
Hardness HRC is 65-69.

# QUICK CHANGE 2 "V" DIES



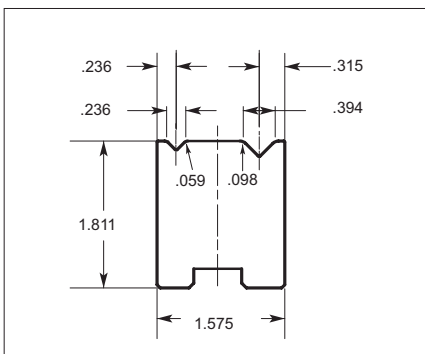
TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
505 SOLID	50590	88°	30	\$398.00	\$225.00
505 SECTIONALIZED	50580	88°	30	\$480.00	—

Hardness HRC is 65-69.



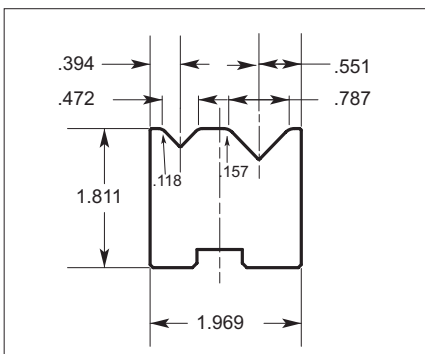
TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
506 SOLID	50690	88°	30	\$398.00	\$225.00
506 SECTIONALIZED	50680	88°	30	\$480.00	—

Hardness HRC is 65-69.



TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
511 SOLID	51190	90°	24	\$491.00	\$366.00
511 SECTIONALIZED	51180	90°	24	\$575.00	—

Die has larger shoulder radius for reduced die marks.  
Hardness HRC is 65-69.

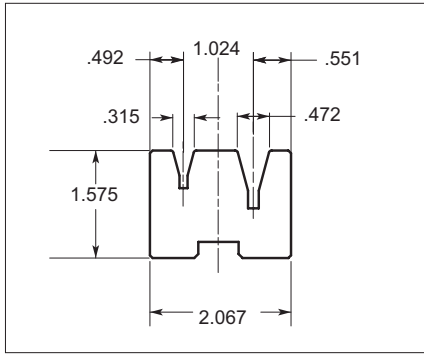


TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
514 SOLID	51490	88°	30	\$491.00	\$366.00
514 SECTIONALIZED	51480	88°	30	\$575.00	—

Die has larger shoulder radius for reduced die marks.  
Hardness HRC is 65-69.



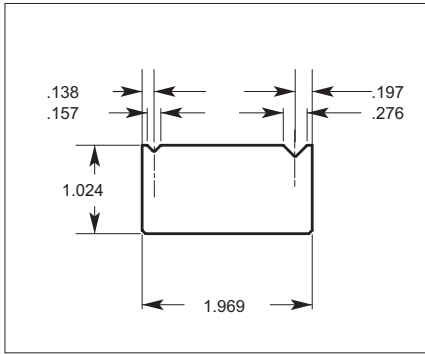
# QUICK CHANGE ACUTE ANGLE 2 "V" DIE



TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
50337 SOLID	50337	30°	6	\$714.00	\$570.00
50338 SECTIONALIZED	50338	30°	6	\$858.00	—

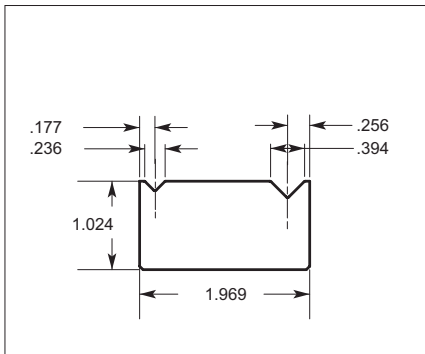
Hardness HRC is 65-69 .

# 88° & 90° 2 "V" DIES



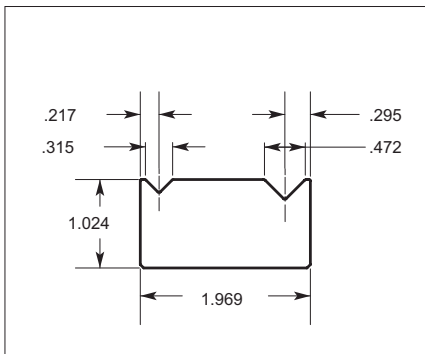
TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
121	12100	90°	18	\$237.00	\$137.00

Hardness HRC is 65-69.



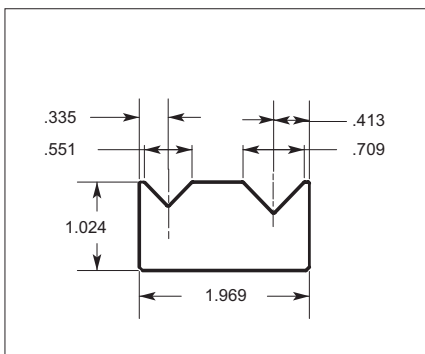
TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
123	12300	90°	21	\$237.00	\$137.00

Hardness HRC is 65-69.



TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
124	12400	90°	24	\$237.00	\$137.00

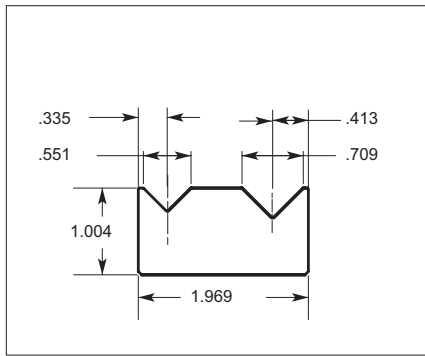
Hardness HRC is 65-69.



TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
125	12500	88°	30	\$237.00	\$137.00

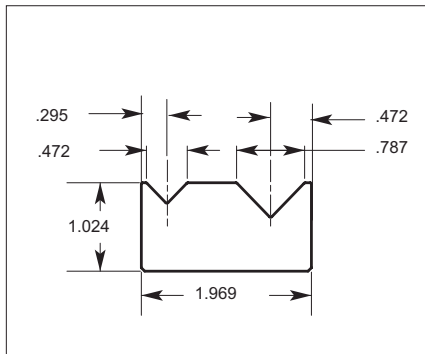
Hardness HRC is 65-69.

# 88° & 90° 2 "V" DIES



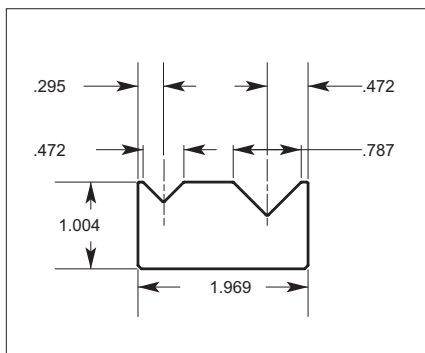
TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
12590	12590	90°	30	\$237.00	\$137.00

Hardness HRC is 65-69.



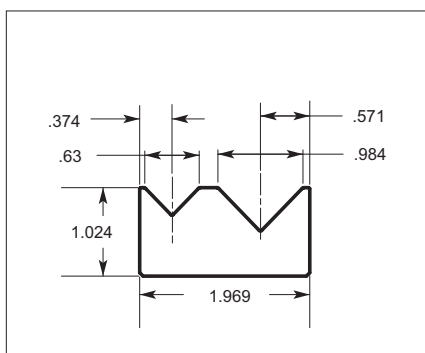
TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
126	12600	88°	30	\$237.00	\$137.00

Hardness HRC is 65-69.



TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
12690	12690	90°	30	\$237.00	\$137.00

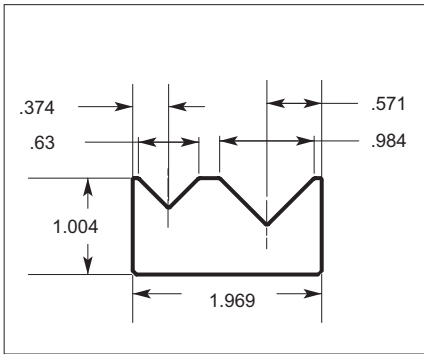
Hardness HRC is 65-69.



TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
127	12700	88°	21	\$237.00	\$137.00

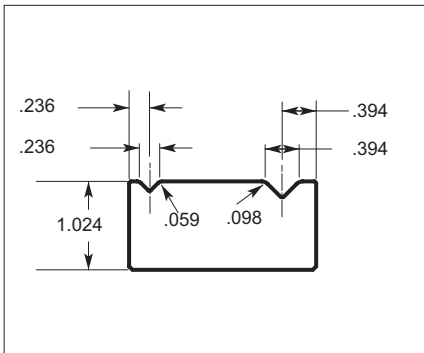
Hardness HRC is 65-69.

# 88° & 90° 2 "V" DIES



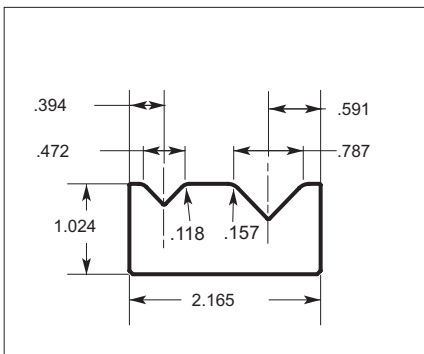
TOOL NUMBER	ORDER CODE NUMBER	ERV ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
12790	12790	90°	21	\$237.00	\$137.00

Hardness HRC is 65-69.



TOOL NUMBER	ORDER CODE NUMBER	ERV ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
311	31100	90°	24	\$249.00	\$143.00

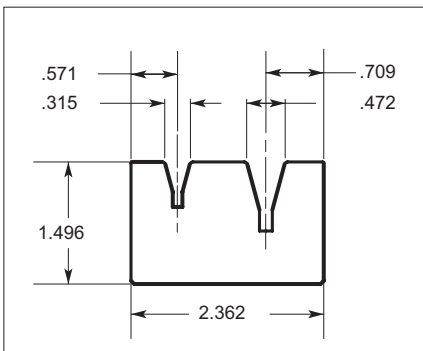
Die has larger shoulder radius for reduced die marks.  
Hardness HRC is 65-69.



TOOL NUMBER	ORDER CODE NUMBER	ERV ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
314	31400	88°	30	\$249.00	\$143.00

Die has larger shoulder radius for reduced die marks.  
Hardness HRC is 65-69.

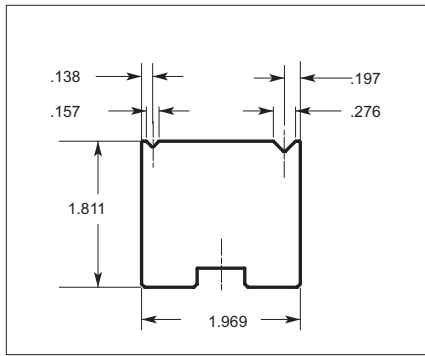
# ACUTE ANGLE 2 "V" DIE



TOOL NUMBER	ORDER CODE NUMBER	ERV ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
337	33700	30°	9	\$386.00	\$231.00

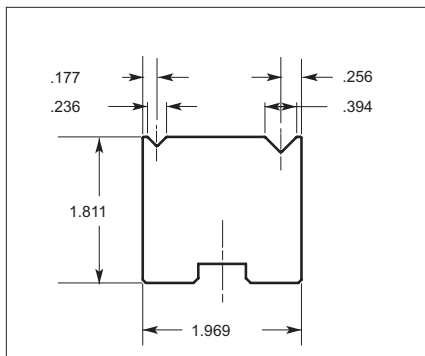
Hardness HRC is 65-69.

# SECTIONALIZED 88° & 90° 2 "V" DIES



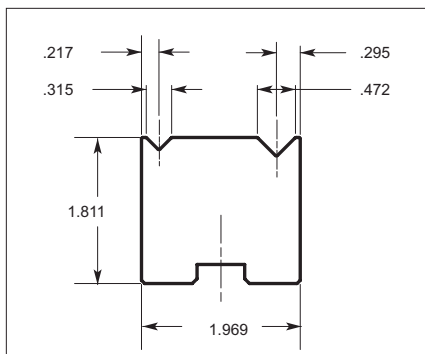
TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
30140	30140	90°	18	\$474.00	—

Sectionalized match to die #121.  
Hardness HRC is 65-69.



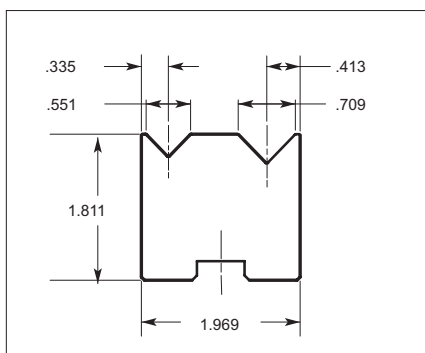
TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
30240	30240	90°	21	\$474.00	—

Sectionalized match to die #123.  
Hardness HRC is 65-69.



TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
30340	30340	90°	21	\$474.00	—

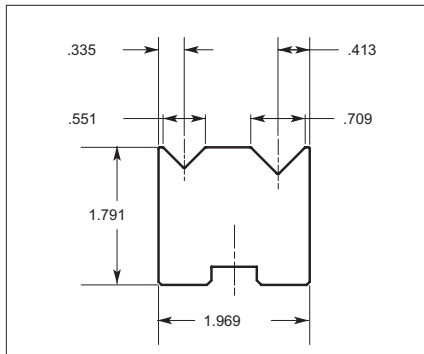
Sectionalized match to die #124.  
Hardness HRC is 65-69.



TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
30440	30440	88°	30	\$474.00	—

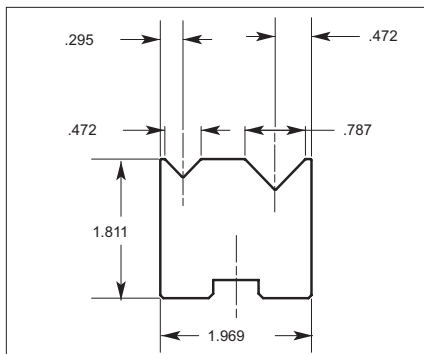
Sectionalized match to die #125.  
Hardness HRC is 65-69.

# SECTIONALIZED 88° & 90° 2 "V" DIES



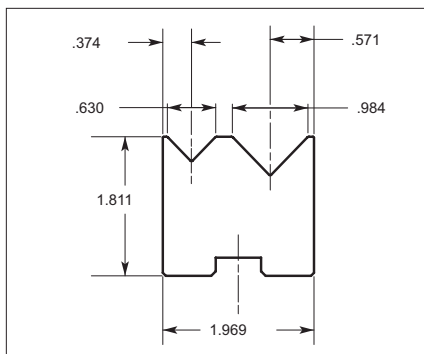
TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
30449	30449	90°	30	\$474.00	—

Sectionalized match to die #12590.  
Hardness HRC is 65-69.



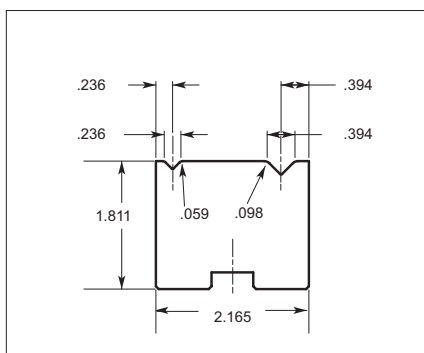
TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
30540	30540	88°	30	\$474.00	—

Sectionalized match to die #126.  
Hardness HRC is 65-69.



TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
30640	30640	88°	30	\$474.00	—

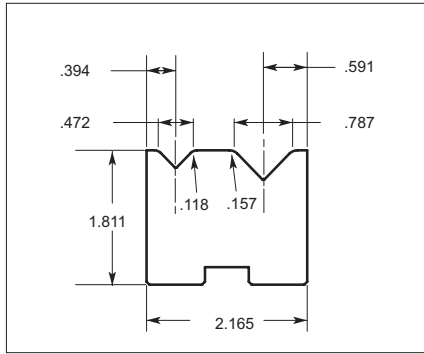
Sectionalized match to die #127.  
Hardness HRC is 65-69.



TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
31140	31140	90°	24	\$479.00	—

Sectionalized match to die #311.  
Hardness HRC is 65-69.  
Die has larger shoulder radius for reduced die marks.

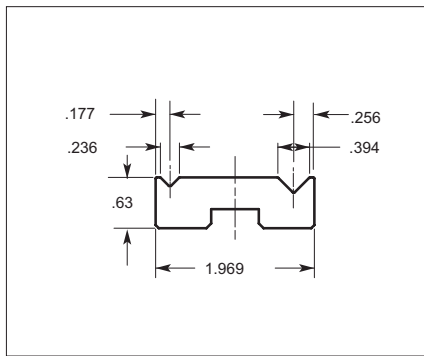
## SECTIONALIZED 88° & 90° 2 "V" DIES



TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
31440	31440	88°	30	\$479.00	—

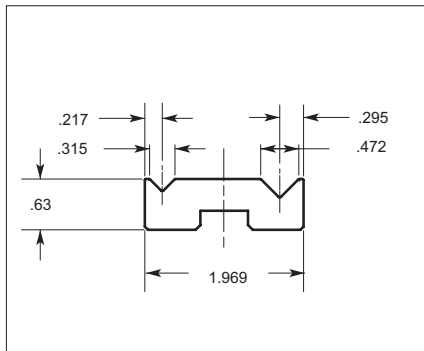
Sectionalized match to die #314.  
Hardness HRC is 65-69.  
Die has larger shoulder radius for reduced die marks.

## SECTIONALIZED LOW PROFILE 2 "V" DIES



TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
30210	30210	90°	21	\$381.00	—

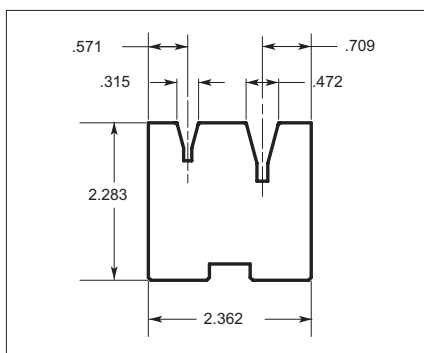
Hardness HRC is 65-69.



TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
30310	30310	90°	21	\$384.00	—

Hardness HRC is 65-69.

## SECTIONALIZED ACUTE ANGLE 2 "V" DIES

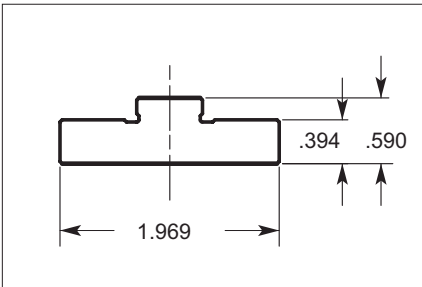


TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
33840	33840	30°	9	\$1,008.00	—

Hardness HRC is 65-69.

# SECTIONALIZED DIE RAIL & HOLDERS

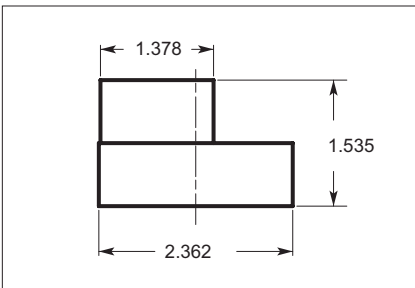
## DIE RAIL



TOOL NUMBER	ORDER CODE NUMBER	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
			32.87" (835 mm)	16.34" (415 mm)
300	30000	30	\$225.00	\$115.00

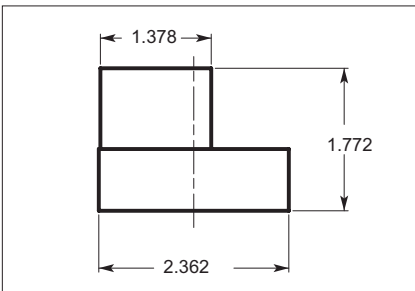
Hardness HRC is 23-28.

## HOLDERS



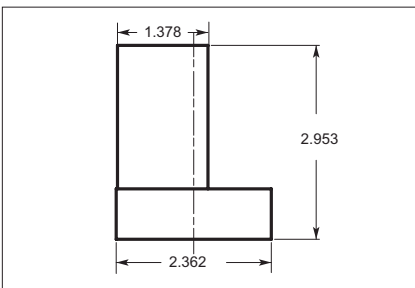
TOOL NUMBER	ORDER CODE NUMBER	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
			32.87" (835 mm)	16.34" (415 mm)
29000	29000	—	\$236.00	\$133.00

Hardness HRC is 23-28.



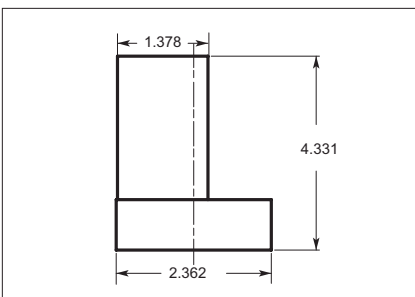
TOOL NUMBER	ORDER CODE NUMBER	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
			32.87" (835 mm)	16.34" (415 mm)
29300	29300	—	\$219.00	\$157.00

Hardness HRC is 23-28.



TOOL NUMBER	ORDER CODE NUMBER	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
			32.87" (835 mm)	16.34" (415 mm)
29100	29100	—	\$404.00	\$258.00

Hardness HRC is 23-28.

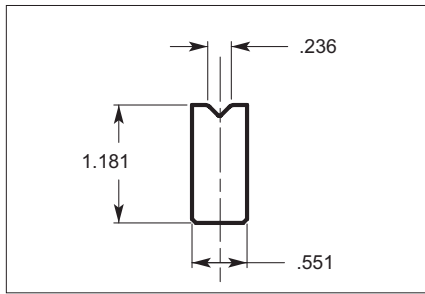


TOOL NUMBER	ORDER CODE NUMBER	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
			32.87" (835 mm)	16.34" (415 mm)
29500	29500	—	\$456.00	\$340.00

Hardness HRC is 23-28.

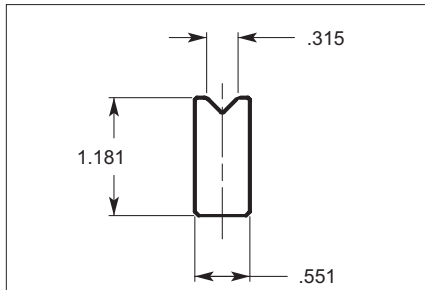


# 88° & 90° SASH 1 "V" DIES



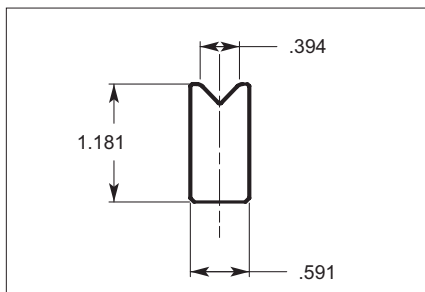
TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
320	32000	90°	29	\$202.00	\$128.00

Hardness HRC is 45-49.



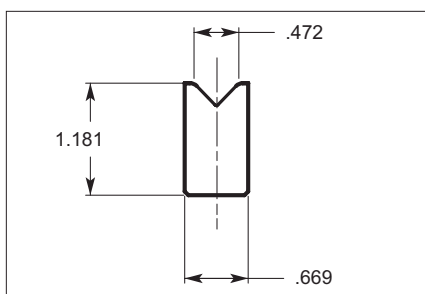
TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
321	32100	90°	29	\$202.00	\$128.00

Hardness HRC is 45-49.



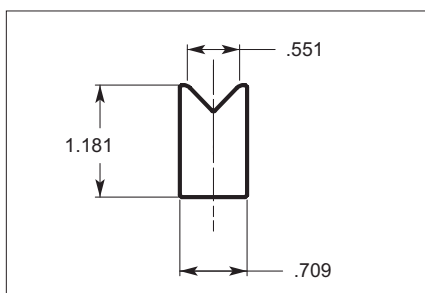
TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
322	32200	88°	29	\$202.00	\$128.00
323	32300	90°	29	\$202.00	\$128.00

Hardness HRC is 45-49.



TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
324	32400	88°	30	\$202.00	\$128.00
326	32600	90°	30	\$202.00	\$128.00

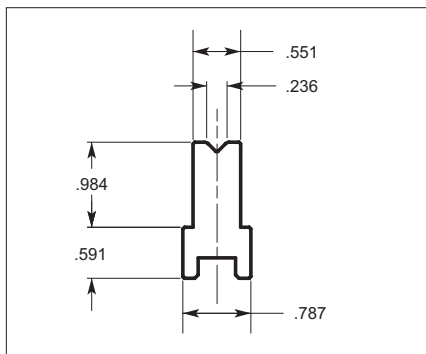
Hardness HRC is 45-49.



TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
325	32500	88°	30	\$202.00	\$128.00

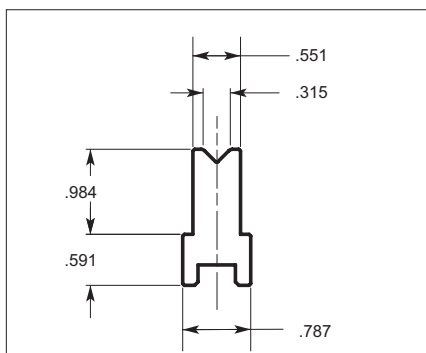
Hardness HRC is 45-49.

# RAIL TYPE SASH 1 "V" DIES



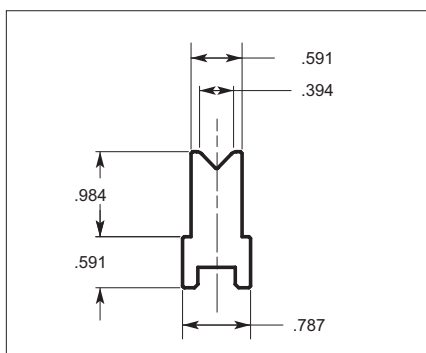
TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE		SECTIONALIZ
				32.87" (835 mm)	16.34" (415 mm)	
70 SOLID	07000	90°	29	\$480.00	\$268.00	—
70 SECTIONALIZED	07080	90°	29	—	—	\$600.00

Hardness HRC is 45-49.



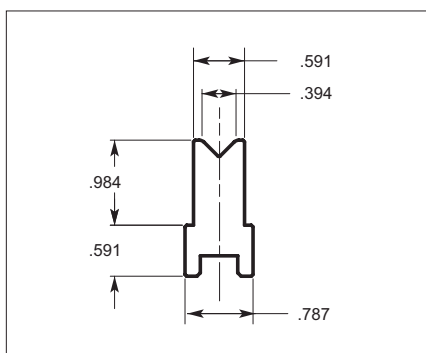
TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE		SECTIONALIZ
				32.87" (835 mm)	16.34" (415 mm)	
71 SOLID	07100	90°	29	\$480.00	\$268.00	—
71 SECTIONALIZED	07180	90°	29	—	—	\$600.00

Hardness HRC is 45-49.



TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE		SECTIONALIZ
				32.87" (835 mm)	16.34" (415 mm)	
72 SOLID	07200	88°	29	\$480.00	\$266.00	—
72 SECTIONALIZED	07280	88°	29	—	—	\$600.00

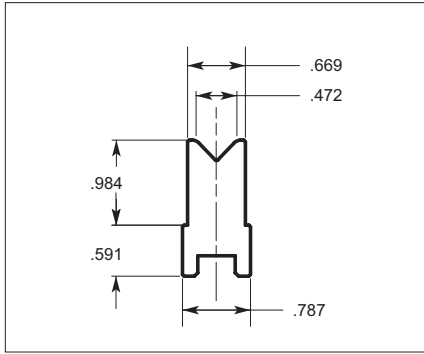
Hardness HRC is 45-49.



TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE		SECTIONALIZ
				32.87" (835 mm)	16.34" (415 mm)	
73 SOLID	07300	90°	29	\$480.00	\$266.00	—
73 SECTIONALIZED	07380	90°	29	—	—	\$600.00

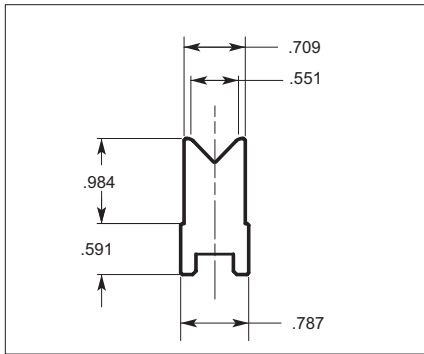
Hardness HRC is 45-49.

# RAIL TYPE SASH 1 "V" DIES



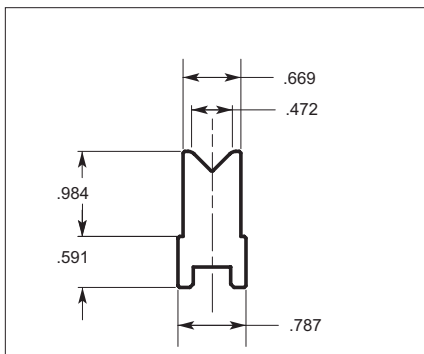
TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE		SECTIONALIZ
				32.87" (835 mm)	16.34" (415 mm)	
74 SOLID	07400	88°	29	\$480.00	\$266.00	—
74 SECTIONALIZED	07480	88°	29	—	—	\$600.00

Hardness HRC is 45-49.



TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE		SECTIONALIZ
				32.87" (835 mm)	16.34" (415 mm)	
75 SOLID	07500	88°	29	\$480.00	\$266.00	—
75 SECTIONALIZED	07580	88°	29	—	—	\$600.00

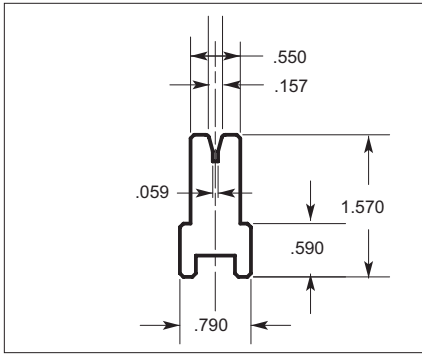
Hardness HRC is 45-49.



TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE		SECTIONALIZ
				32.87" (835 mm)	16.34" (415 mm)	
76 SOLID	07600	90°	29	\$480.00	\$266.00	—
76 SECTIONALIZED	07680	90°	29	—	—	\$600.00

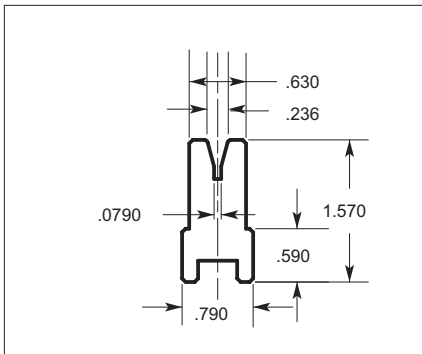
Hardness HRC is 45-49.

# ACUTE ANGLE 1 "V" DIES



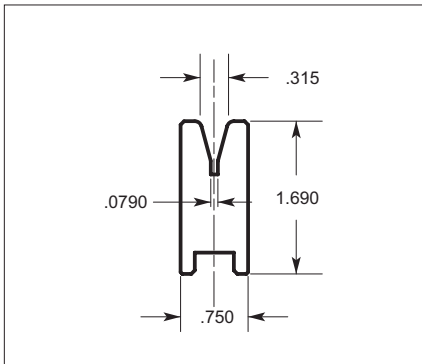
TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE		SECTIONALIZ
				32.87" (835 mm)	16.34" (415 mm)	
4121 SOLID	41210	30°	5.2	\$730.00	\$482.00	—
4121 SECTIONALIZED	41219	30°	5.2	—	—	\$1,140.00

Hardness HRC is 45-49.



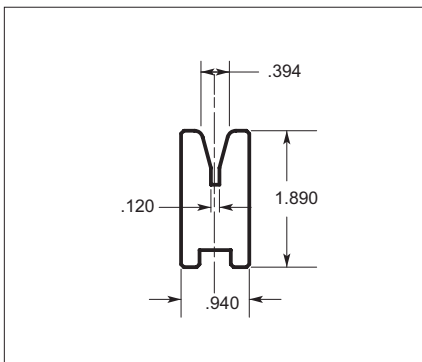
TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE		SECTIONALIZ
				32.87" (835 mm)	16.34" (415 mm)	
4123 SOLID	41230	30°	4.9	\$730.00	\$482.00	—
4123 SECTIONALIZED	41239	30°	4.9	—	—	\$1,140.00

Hardness HRC is 45-49.



TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE		SECTIONALIZ
				32.87" (835 mm)	16.34" (415 mm)	
4124 SOLID	41240	30°	5.5	\$730.00	\$482.00	—
4124 SECTIONALIZED	41249	30°	5.5	—	—	\$1,140.00

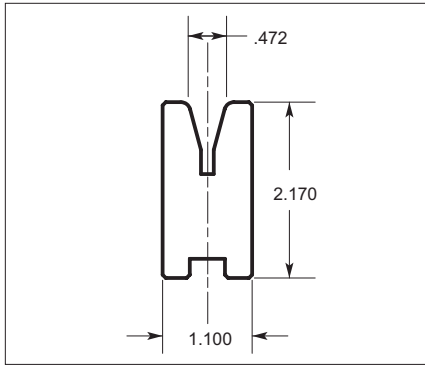
Hardness HRC is 45-49.



TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE		SECTIONALIZ
				32.87" (835 mm)	16.34" (415 mm)	
4125 SOLID	41250	30°	6.4	\$1,096.00	\$678.00	—
4125 SECTIONALIZED	41259	30°	6.4	—	—	\$1,518.00

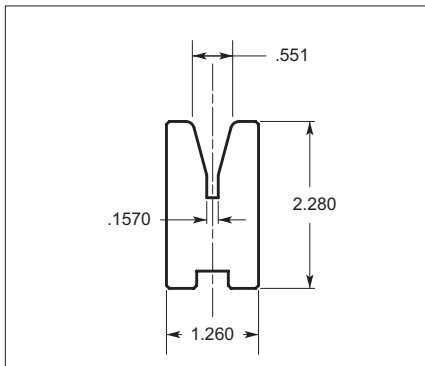
Hardness HRC is 45-49.

# ACUTE ANGLE 1 "V" DIES



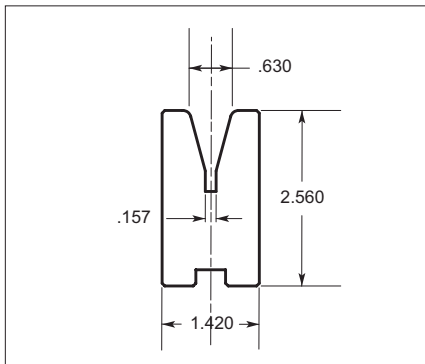
TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE		SECTIONALIZ
				32.87" (835 mm)	16.34" (415 mm)	
4126 SOLID	41260	30°	7.0	\$1,265.00	\$730.00	—
4126 SECTIONALIZED	41269	30°	7.0	—	—	\$1,667.00

Hardness HRC is 45-49.



TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE		SECTIONALIZ
				32.87" (835 mm)	16.34" (415 mm)	
4127 SOLID	41270	30°	8.2	\$1,265.00	\$730.00	—
4127 SECTIONALIZED	41279	30°	8.2	—	—	\$1,667.00

Hardness HRC is 45-49.

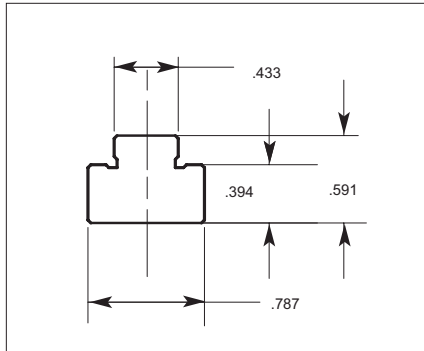


TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE		SECTIONALIZ
				32.87" (835 mm)	16.34" (415 mm)	
4128 SOLID	41280	30°	9.4	\$1,489.00	\$920.00	—
4128 SECTIONALIZED	41289	30°	9.4	—	—	\$1,881.00

Hardness HRC is 45-49.

# SASH 1 "V" DIE RAIL & HOLDERS

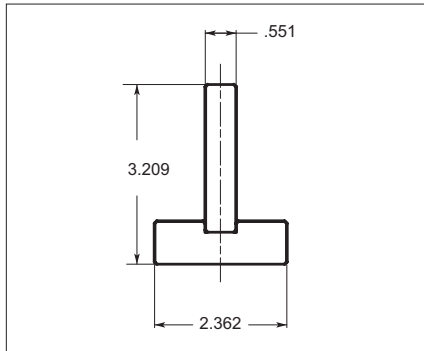
## DIE RAIL



TOOL NUMBER	ORDER CODE NUMBER	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
			32.87" (835 mm)	16.34" (415 mm)
30	30009	—	\$335.00	—

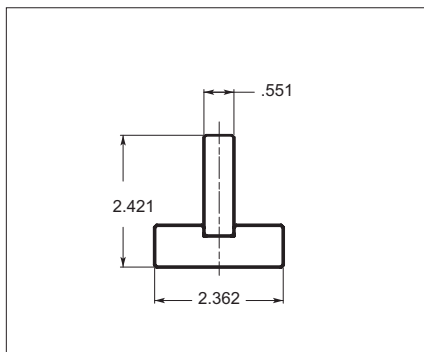
Hardness HRC is 23-28.

## HOLDERS



TOOL NUMBER	ORDER CODE NUMBER	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
			32.87" (835 mm)	16.34" (415 mm)
330	33000	—	\$452.00	\$293.00

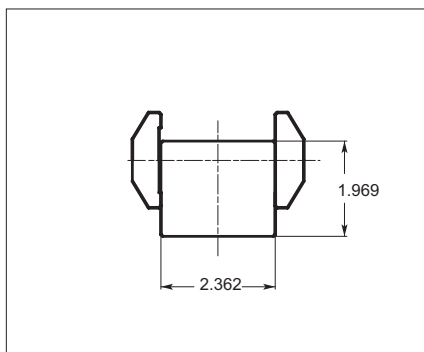
Hardness HRC is 23-28.



TOOL NUMBER	ORDER CODE NUMBER	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
			32.87" (835 mm)	16.34" (415 mm)
80	08000	—	\$900.00	—

Hardness HRC is 23-28.

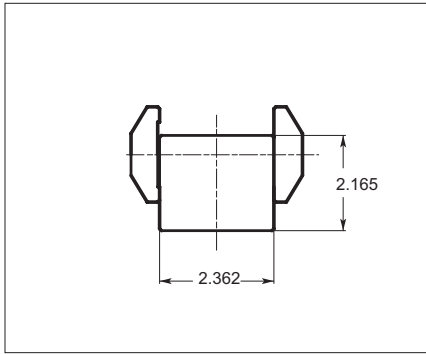
## LARGE "V" DIE HOLDER



TOOL NUMBER	ORDER CODE NUMBER	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
			32.87" (835 mm)	16.34" (415 mm)
50008	50008	—	\$398.00	\$225.00

Hardness HRC is 23-28.

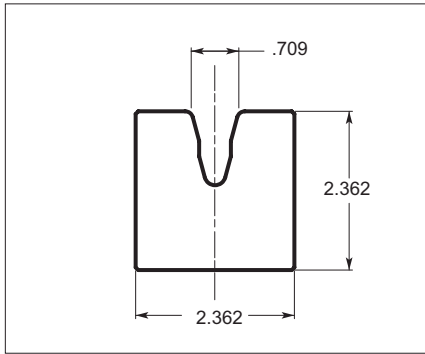
# LARGE "V" DIE HOLDER



TOOL NUMBER	ORDER CODE NUMBER	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
			32.87" (835 mm)	16.34" (415 mm)
55	55000	—	\$1,325.00	\$975.00

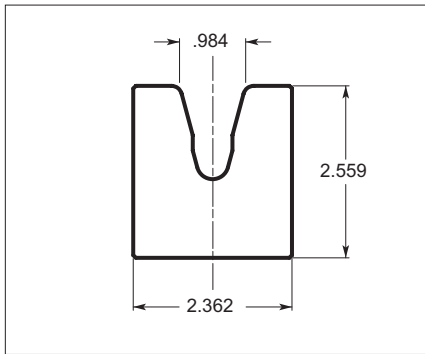
Hardness HRC is 23-28.

## LARGE "V" DIES



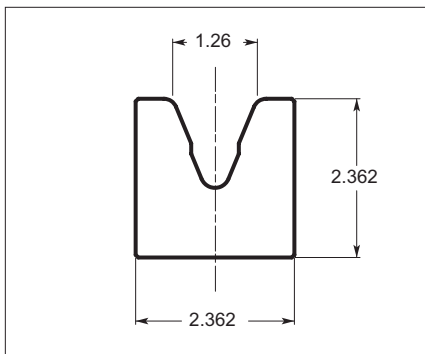
TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
340	34000	30°	24	\$300.00	\$177.00

Hardness HRC is 43-47. Mounts on #50008 Die Holder.



TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
341	34100	30°	18	\$336.00	\$200.00

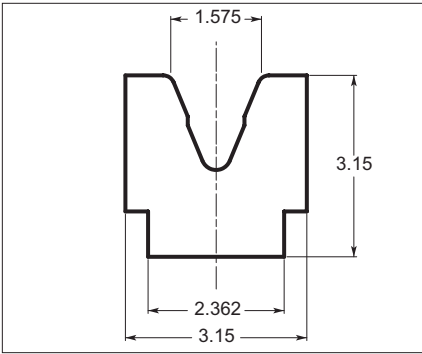
Hardness HRC is 43-47. Mounts on #50008 Die Holder.



TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
342	34200	45°	12	\$334.00	\$203.00

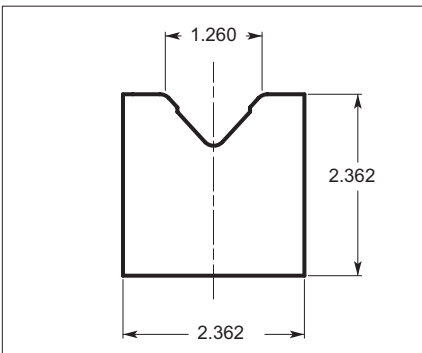
Hardness HRC is 43-47. Mounts on #50008 Die Holder.

# LARGE "V" DIES



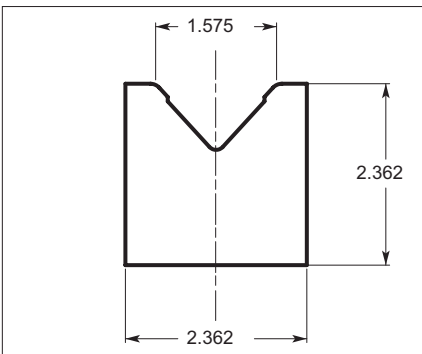
TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
343	34300	45°	21	\$492.00	\$300.00

Hardness HRC is 43-47. Mounts on #50008 Die Holder.



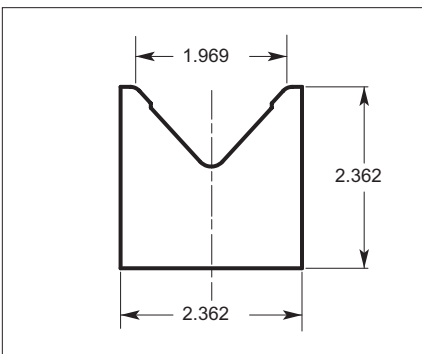
TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
35	03500	85°	30	\$272.00	\$142.00

Hardness HRC is 43-47. Mounts on #50008 Die Holder.



TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
36	03600	85°	30	\$312.00	\$167.00

Hardness HRC is 43-47. Mounts on #50008 Die Holder.

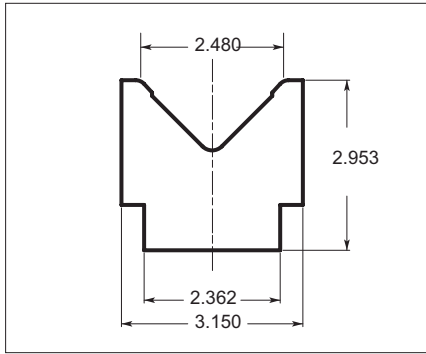


TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
37	03700	85°	30	\$309.00	\$185.00

Hardness HRC is 43-47. Mounts on #50008 Die Holder.

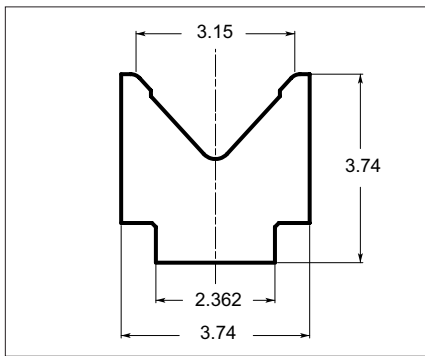


# LARGE "V" DIES



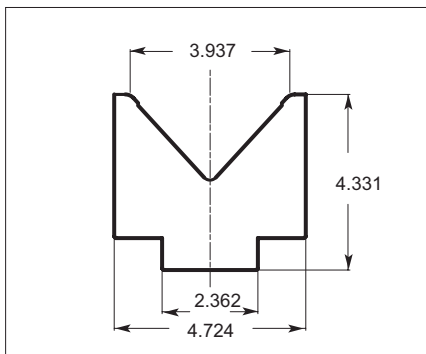
TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
38	03800	85°	30	\$592.00	\$318.00

Hardness HRC is 43-47. Mounts on #50008 Die Holder.



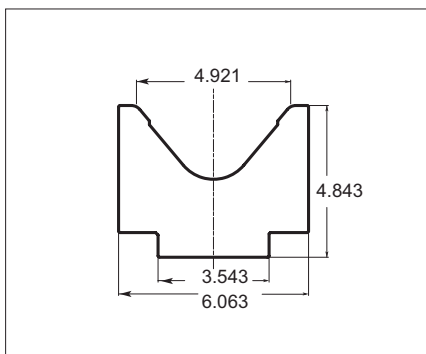
TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
13	01360	85°	30	\$806.00	\$504.00

Hardness HRC is 43-47. Mounts on #50008 Die Holder.



TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
18	01860	85°	30	\$1,480.00	\$880.00

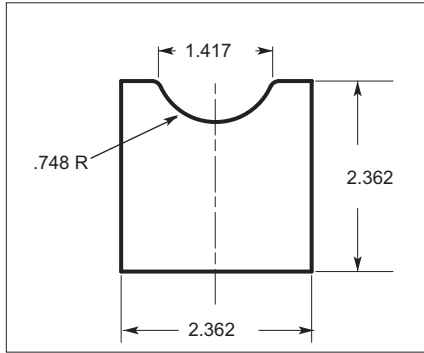
Hardness HRC is 43-47. Mounts on #50008 Die Holder.



TOOL NUMBER	ORDER CODE NUMBER	V ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
39	03900	80°	30	\$1,490.00	\$890.00

Hardness HRC is 43-47.

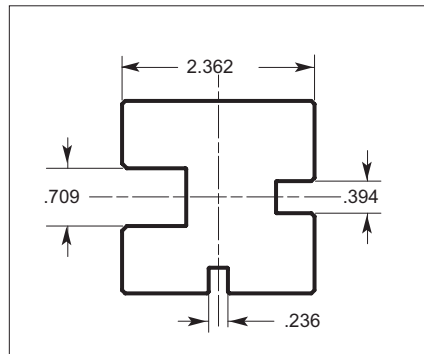
# LARGE "V" DIES



TOOL NUMBER	ORDER CODE NUMBER	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
			32.87" (835 mm)	16.34" (415 mm)
350	35000	30	\$472.00	\$278.00

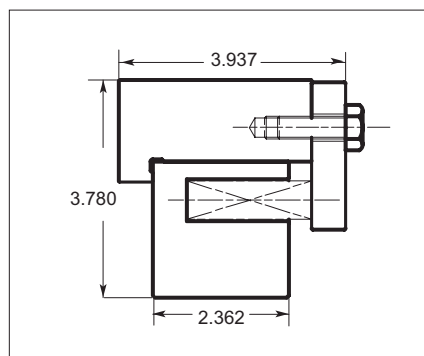
Hardness HRC is 43-47. Mounts on #50008 Die Holder.

# FLATTENING DIES



TOOL NUMBER	ORDER CODE NUMBER	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
			32.87" (835 mm)	16.34" (415 mm)
12	01200	30	\$281.00	\$169.00

Hardness HRC is 23-28. Mounts on #50008 Die Holder.

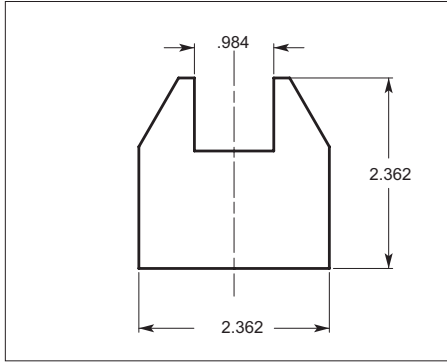


TOOL NUMBER	ORDER CODE NUMBER	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
			32.87" (835 mm)	16.34" (415 mm)
105	10500	30	\$1,092.00	\$640.00

Hardness HRC is 43-47.

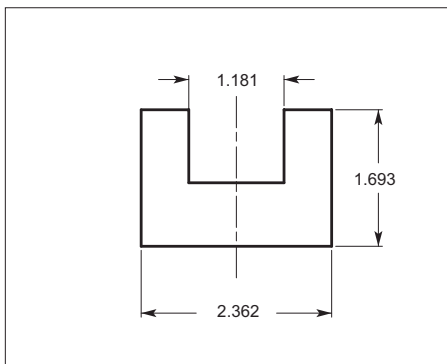
# POLYURETHANE DIES & DIE HOLDERS

## Holders



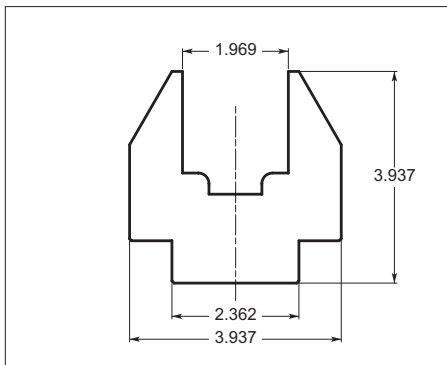
TOOL NUMBER	ORDER CODE NUMBER	HEIGHT (H)	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
60 (1)	06001	2.362	—	\$468.00	\$274.00

Hardness HRC is 23-28. Mounts on #50008 Die Holder.



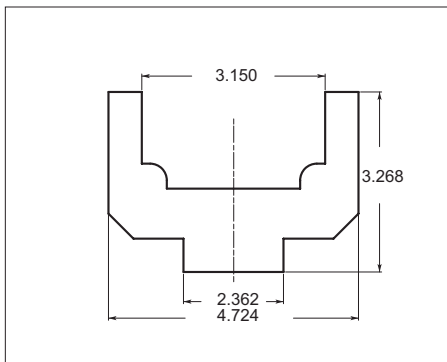
TOOL NUMBER	ORDER CODE NUMBER	HEIGHT (H)	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
60 (2)	06002	1.693"	—	\$443.00	\$259.00

Hardness HRC is 23-28. Mounts on #50008 Die Holder.



TOOL NUMBER	ORDER CODE NUMBER	HEIGHT (H)	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
60 (3)	06003	3.937"	—	\$1,279.00	\$695.00

Hardness HRC is 23-28. Mounts on #50008 Die Holder.

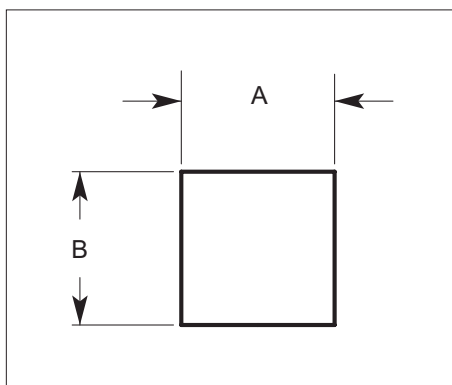


TOOL NUMBER	ORDER CODE NUMBER	HEIGHT (H)	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				32.87" (835 mm)	16.34" (415 mm)
60 (4)	06004	3.268"	—	\$1,269.00	\$770.00
60 (5)	06005	4.252"	—	\$1,958.00	\$1,155.00

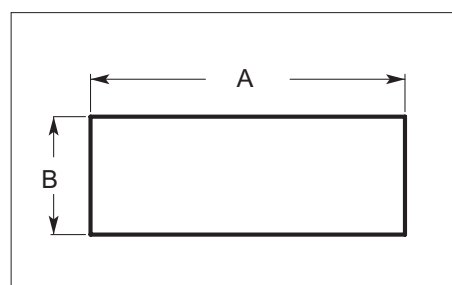
Hardness HRC is 23-28. Mounts on #50008 Die Holder.

# POLYURETHANE DIES & DIE HOLDER

## Dies



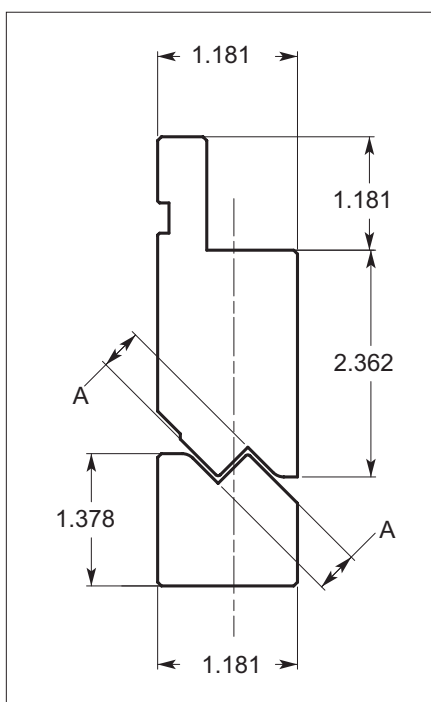
TOOL NUMBER	ORDER CODE NUMBER	A	B	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
					32.87" (835 mm)	16.34" (415 mm)
61 (1)	06111 RED*	.984"	.984"	—	\$53.00	\$29.00
	06112 BLUE**	.984"	.984"	—	\$71.00	\$37.00
61 (2)	06121 RED*	1.181"	1.181"	—	\$62.00	\$32.00
	06122 BLUE**	1.181"	1.181"	—	\$75.00	\$40.00
61 (3)	06131 RED*	1.969"	1.969"	—	\$213.00	\$110.00
	06132 BLUE**	1.969"	1.969"	—	\$265.00	\$142.00



TOOL NUMBER	ORDER CODE NUMBER	A	B	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
					32.87" (835 mm)	16.34" (415 mm)
61 (4)	06141 RED*	3.150"	1.181"	—	\$189.00	\$101.00
	06142 BLUE**	3.150"	1.181"	—	\$271.00	\$135.00
61 (5)	06151 RED*	4.330"	1.772"	—	\$414.00	\$212.00
	06152 BLUE**	4.330"	1.772"	—	\$529.00	\$271.00

\*80 Shore "A" scale hardness  
 \*\*90 Shore "A" scale hardness

## STANDARD OFFSET TOOLS

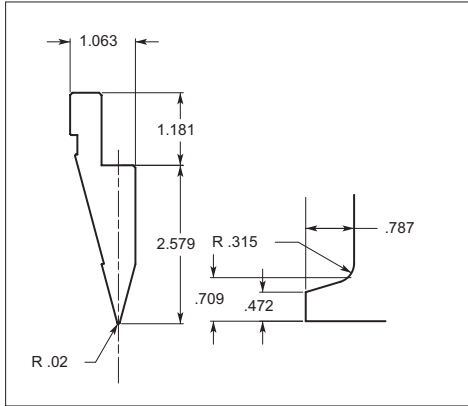


TOOL NUMBER	ORDER CODE NUMBER	WIDTH (A)	ALLOWABLE TONNAGE (TON/FOOT)	MAX MATERIAL (CRS)	PRICE
					32.87" (4835mm)
60421	60421	.125"	30	18 GA	\$1,100.00
60422	60422	.188"	30	18 GA	\$1,100.00
60229	60229	.250"	30	18 GA	\$1,100.00
60424	60424	.375"	30	16 GA	\$1,100.00
60425	60425	.500"	30	16 GA	\$1,100.00
60426	60426	.313"	30	16 GA	\$1,100.00
60427	60427	.438"	30	16 GA	\$1,100.00

Hardness HRC is 23-28.  
 Tolerances after bending, using the above offset tools = +/- .020.  
**Specify standard or One Touch style.**

# HEMMING PUNCH & DIES

## PUNCH

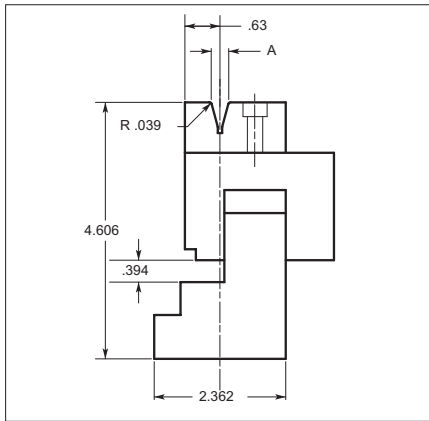


TOOL NUMBER	ORDER CODE NUMBER		EDGE ANGLE	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
	STANDARD	ONE TOUCH			32.87" (835 mm)	16.34" (415 mm)
103 SOLID	70300	10300	.020 30°	30	\$450.00	\$265.00
10380* SECTIONALIZED	70380	10380	.020 30°	30	\$590.00	—

Hardness HRC is 45-49.

\*Semi-Standard Length (Ear Type): .39 + .59 + .79 + 1.57 + 1.97 + 3.94 + 3.94 + 6.50  
11.81 = 31.50" (1 set)

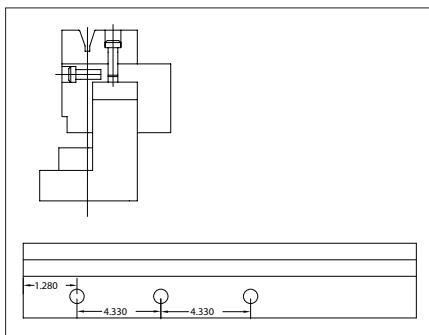
## DIE ASSEMBLY



TOOL NUMBER	ORDER CODE NUMBER	MAX MATERIAL	A	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
					32.87" (835 mm)	16.34" (415 mm)
104	10409	16 GA CRS 18 GA SS	.315"	20	\$1,225.00	\$730.00
1046	10469	18 GA CRS 20 GA SS	.236"	20	\$1,225.00	\$730.00

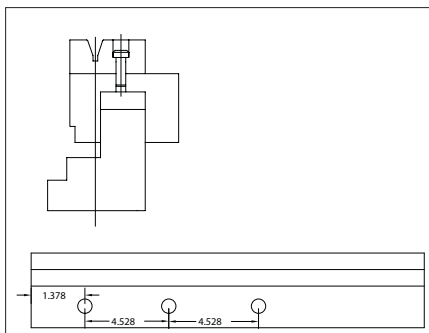
Hardness HRC is 45-49.

## REPLACEMENT DIE BLOCK



TOOL NUMBER	ORDER CODE NUMBER	A	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				Old Style	32.87" (835 mm)
104R	80130	.315"	20	\$520.00	\$320.00
1046R	80140	.236"	20	\$520.00	\$320.00

Hardness HRC is 45-49.

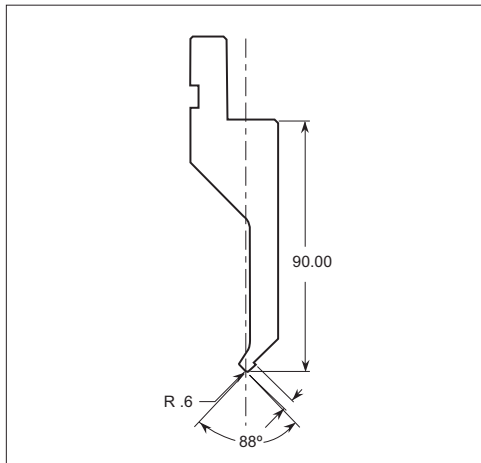


TOOL NUMBER	ORDER CODE NUMBER	A	ALLOWABLE TONNAGE (TON/FOOT)	PRICE	
				New Style	32.87" (835 mm)
104R	80139	.315"	20	\$520.00	\$320.00
1046R	80149	.236"	20	\$520.00	\$320.00

Hardness HRC is 45-49.

# ASTRO ROBOTIC TOOLING

## PUNCH

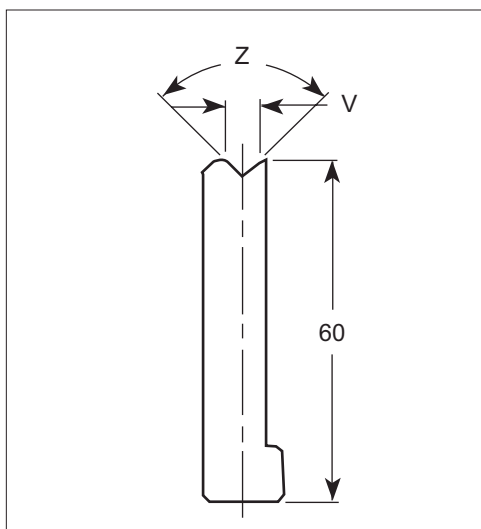


ORDER CODE NUMBER		ANGLE	PRICE		
SOLID	SECTIONALIZED		32.87" (LONG)	16.34" (SHORT)	SECTIONALIZ
51100	51200	88°	\$1,271.00	\$665.00	\$1,464.00

## HINGED EAR SECTIONS FOR ABOVE PUNCH

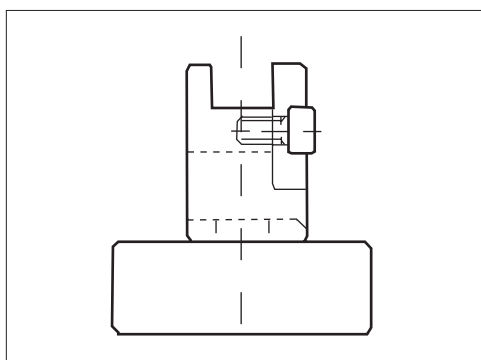
ORDER CODE NUMBER	DESCRIPTION	PRICE
51300	HINGED EAR SECTIONS	\$2,370.00

## DIE



ORDER CODE NUMBER		DESCRIPTION		PRICE		
SOLID	SECTIONALIZED	V	V ANGLE (Z)	32.87" (LONG)	16.34" (SHORT)	SECTIONALIZ
80400	80480	.157"	90°	\$1,187.00	\$893.00	\$1,523.00
80408	80488	.157"	88°	\$1,187.00	\$893.00	\$1,523.00
80600	80680	.236"	90°	\$1,187.00	\$893.00	\$1,523.00
80608	80688	.236"	88°	\$1,187.00	\$893.00	\$1,523.00
80800	80880	.315"	90°	\$1,187.00	\$893.00	\$1,523.00
80808	80888	.315"	88°	\$1,187.00	\$893.00	\$1,523.00
81000	81080	.394"	90°	\$1,187.00	\$893.00	\$1,523.00
81008	81088	.394"	88°	\$1,187.00	\$893.00	\$1,523.00
81200	81280	.472"	90°	\$1,187.00	\$893.00	\$1,523.00
81208	81288	.472"	88°	\$1,187.00	\$893.00	\$1,523.00
81400	81480	.551"	90°	\$1,187.00	\$893.00	\$1,523.00
81408	81488	.551"	88°	\$1,187.00	\$893.00	\$1,523.00

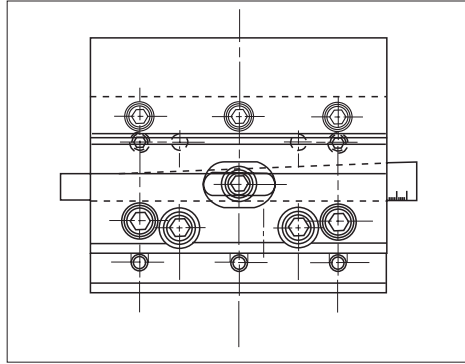
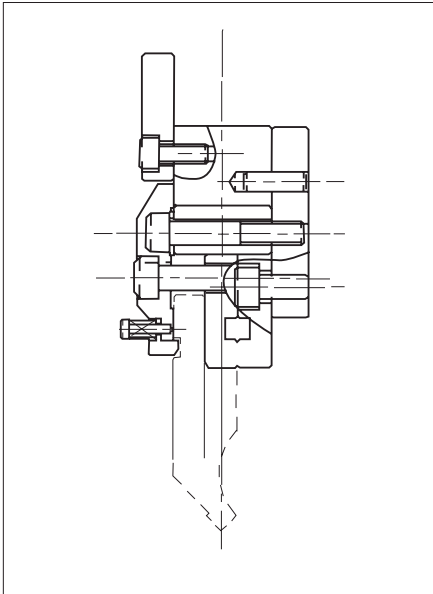
## DIE HOLDER



ORDER CODE NUMBER		DESCRIPTION	PRICE	
SOLID	SECTIONALIZED		32.87" (LONG)	16.34" (SHORT)
53200		ASTRO DIE HOLDER	\$987.00	\$593.00

# PRESS BRAKE TOOLING ADAPTERS FROM AMADA AMERICA, INC.

## COMBO PUNCH ADAPTER



ORDER CODE NUMBER	PRICE
95300	\$450.00 each

Enable the fabricator to utilize Amada European style tooling or Conventional style tooling all in one Distance Piece.

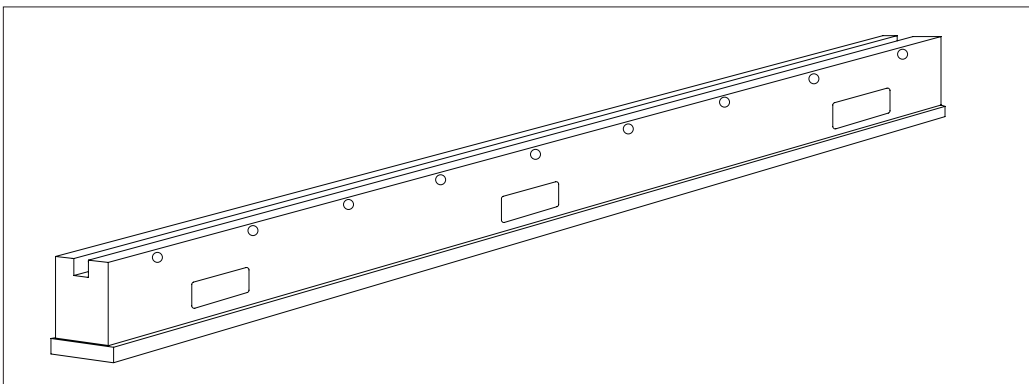
No changing of distance pieces.

The COMBO PUNCH ADAPTER has an adjustment wedge to eliminate shimming and crowning problems.

Mount easily to any Amada Press Brake.

2 Adapters recommended for every 32.87" of upper beam.

## CONVENTIONAL DIE ADAPTERS



ORDER CODE NUMBER - Length	PRICE
70201 - 32.87" Length	\$690.00
70201 - 16.34" Length	\$375.00

The die adapters are used to adapt conventional dies to the Amada Press Brake. They are just like the standard Amada die holders. A slot allows for the seating of the conventional dies and set screws along the length of tightening. This adapter is available in the standard and short lengths.

# PRESS BRAKE ACCESSORIES

## DEEP PUNCH HOLDER



TOOL NUMBER	ORDER CODE NUMBER	ALLOWABLE TONNAGE (TON/FOOT)	PRICE
			7.784" (200 mm)
94000	94000	10	\$880.00

Hardness HRC is 23-28.

**Specify standard or One Touch style.**

## QUICK SET DIE HOLDER



Lock or unlock a full bed-length of die with one twist of a handle. Modular design allows multiple die holders to be operated by one handle. Same profile as standard die holder (H=75mm).

TOOL NUMBER	ORDER CODE NUMBER	PRICE	
		32.87" (835 mm)	16.34" (415 mm)
90400	90400	\$705.00	\$450.00

### Bolts and washers/set for use with Quick-Set Die Holder

TOOL NUMBER	ORDER CODE NUMBER	PRICE
90500	90500	\$44.00

## SIDE GAUGE AND ADJUSTABLE ANGLE SIDE GAUGE



### Side Gauge

Side Gauge used to square parts with the bend line. Mounts directly on "V" die to help correctly align those small, hard to handle parts.

TOOL NUMBER	ORDER CODE NUMBER	PRICE
93000	93000	\$330.00



### Adjustable Angle Side Gauge

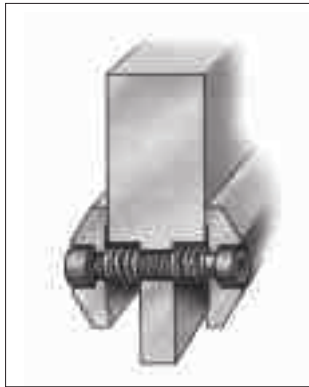
Same as Side Gauge but with a squaring arm that rotates 100° to provide "bending at an angle."

TOOL NUMBER	ORDER CODE NUMBER	PRICE
93200	93200	\$830.00



# PRESS BRAKE ACCESSORIES

## FRONT AND REAR CLAMP ASSEMBLY



TOOL NUMBER	ORDER CODE NUMBER	DESCRIPTION	PRICE
92500	92500	Clamp Assembly Set	\$45.00
96400	96400	Clamp Plate	\$28.00
96200	96200	Hardware Set	\$18.00

## SLEEVED RADIUS RULER - CR 30



Sleeved Radius Ruler forms 9 different radii with one tool.

Sleeves slide on to form radii from .394" to 1.181".

Available in long (32.87"), short (16.34") and sectionalized lengths.

Mounts in any Amada press brake.

TOOL NUMBER	ORDER CODE NUMBER	LENGTH	PRICE
03000	03000	32.87"	\$770.00
03000	03000	16.34"	\$400.00
03080	03080	SECTIONALIZED	\$1,650.00

**Specify standard or One Touch style.**

## HINGED EAR SECTIONS



Hinged ear drops down to release part

Precision ground tooling allows hinged portion to mate with punch without leaving marks on part

Hinged Ear Sections are used for accommodating channeled return flanges on the press brake.

Available in #4, #16, #453, and #463 style punches with .008" radius.

Allows for easy removal of pans and boxes with return flanges around perimeter of part.

Eliminates springing open of flanges to remove part from tooling.

Reduces operator fatigue and part rejects.

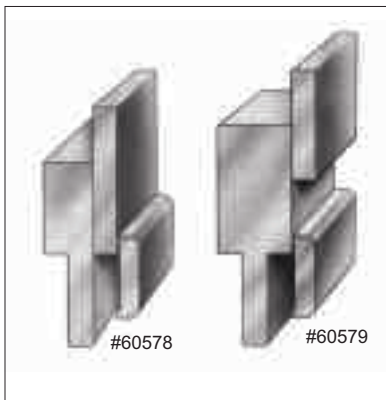
TOOL NUMBER	ORDER CODE NUMBER	PUNCH TYPE	PRICE PER SET*
40402	40402	#4	\$1,850.00
41602	41602	#16	\$1,850.00
43302	43302	#453	\$2,100.00
44302	44302	#463	\$2,100.00

\*Each set includes a left and right hinged ear section

**Specify standard or One Touch style.**

# PRESS BRAKE ACCESSORIES

## NARROW PUNCH HOLDER



### #60578

Allows greater clearance between punch holders for more flexibility. For use on Z-1 press brakes or for stacking with Z-2 style holder.

### #60579

Same as above, but for use on Z-2 style press brakes only.

ORDER CODE NUMBER	PRICE
60578	\$330.00
60579	\$330.00

## URETHANE ROLL

ORDER CODE NUMBER	DESCRIPTION	PRICE
42621	.015" thick urethane for mark-free bending for use on 16 ga. mat'l and thinner.	\$172.00
42618	.030" thick urethane for mark-free bending for use on 16 ga. mat'l and thicker.	\$236.00

Both urethane rolls above are 6" wide x 100' long.

## MARKLESS MATERIAL PROTECTION

ORDER CODE NUMBER	DESCRIPTION	PRICE
9200204	<b>SA50</b> REPLACEMENT MATERIAL (LIGHT) (12 ROLLS ) (EACH ROLL CONTAINS 25'OF MATERIAL) 18 GA & THINNER	\$325.00
9200203	<b>DA50</b> REPLACEMENT MATERIAL (HEAVY) (12 ROLLS ) (EACH ROLL CONTAINS 25'OF MATERIAL) 16 GA & THICKER	\$325.00

## PRESS BRAKE CABINET



TOOL NUMBER	DESCRIPTION	PRICE
99570240	PRESS BRAKE CABINET WITH MOBILE BASE AND RETAINER TOP WITH MAT	\$1885.00
99570241	PRESS BRAKE CABINET WITH FORKLIFT BASE AND RETAINER TOP WITH MAT	\$1885.00
99570242	MAPLE TOP INSTEAD OF RETAINER TOP (COMES WITH MOBILE BASE)	\$110.00

Shown with optional mobile base kit.

# PRESS BRAKE ACCESSORIES

## REPLACEMENT PARTS

### REPLACEMENT CLAMP PLATE WITH SAFETY TONGUE

TOOL NUMBER	TOOL NUMBER	DESCRIPTION	PRICE
96100	96100	Clamp Plate	\$30.00

### REPLACEMENT "V" DIE BOLTS

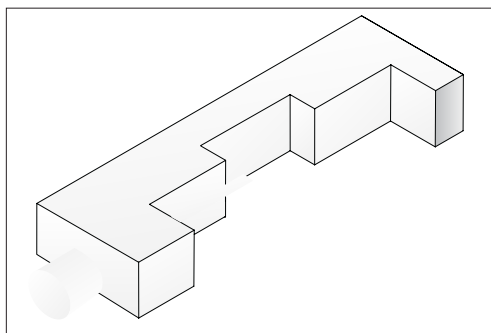
TOOL NUMBER	TOOL NUMBER	DESCRIPTION	PRICE
80010	80010	Set Bolt for 2V Die M8 X 25	\$1.00
80020	80020	Spring for 1V Die and 2V Die	\$2.00
80030	80030	Washer for 2V Die M8	\$2.00
80040	80040	Set Bolt for 1V Die M8 X 30	\$1.00
80050	80050	Washer for 1V Die	\$4.00

Long size die requires 4 sets of bolts, springs and washers. Short size die requires 2 sets of bolts, springs and washers.

### REPLACEMENT BOLTS FOR HEMMING TOOL

TOOL NUMBER	TOOL NUMBER	DESCRIPTION	PRICE
80069	80069	M8 X 55 Stripper Bolt	\$3.00
80080	80080	Spring	\$4.00

### SIDE STOPPERS



ORDER CODE NUMBER	PRICE
93600	\$66.00 (2 pc. Set)

# AIR BENDING FORCE CHART

## Die Opening Selection Formula

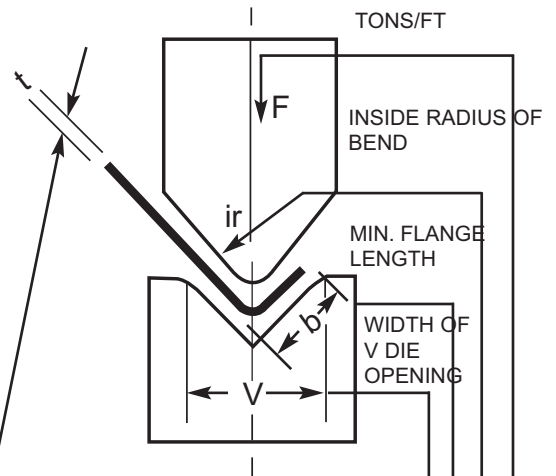
<b>t</b>	GAUGE	12 OR LESS	11-5/16"	3/8" - 1/2"	5/8" UP
	INCHES	.105 OR LESS	.120 - .313	.375 - .500	.625 AND UP
"V" SIZE		6 Xt	8 Xt	10 Xt	12 Xt

The above formulas are for reference only. For more detailed information refer to the chart below.

If the material thickness and inside bend radius are known, the following can be obtained from the chart below:

1. Pressure required for bending the material for 1 foot.
2. Opening of the die to be used.
3. Minimum bendable flange length.

- t** Material thickness  
(tensile strength: 56892-71115 lbs/in
- F** Tons per 1 foot
- ir** Inside bend radius
- b** Minimum flange length
- v** Die opening



<b>t</b>		THICKNESS																				MILD STEEL				
GAUG.	DEC.	4	6	7	8	10	12	14	16	18	20	25	32	40	50	63	80	100	125	160	200	250	mm	v		
		.156	.250	.281	.313	.375	.500	.563	.625	.688	.750	1.000	1.250	1.500	2.000	2.500	3.000	4.000	5.000	6.000	8.000	10.000	inches	b		
		.125	.188	.203	.219	.281	.344	.406	.438	.531	.563	.688	.875	1.125	1.375	1.750	2.188	2.188	3.500	4.500	5.500	6.875	inches	b		
		.031	.031	.047	.047	.063	.078	.094	.109	.125	.141	.156	.203	.250	.313	.406	.516	.625	.750	1.031	1.313	1.625	inches	ir		
20	0.036	5.4	3.6	3.0	2.5	2.0	1.7																			
18	0.048		6.8	5.8	4.8	3.7	2.7	2.4	2.0																	
16	0.060				7.8	6.2	5.0	4.2	3.5	3.1	2.7															
14	0.075					11.0	8.2	7.0	5.5	4.8	4.1	3.1														
12	0.105						15.0	13.0	11.0	9.4	7.4	5.5	4.0													
11	0.120							16.0	13.0	10.0	7.3	5.0	3.8													
10	0.135									12.0	9.0	6.2	4.7	3.5												
.188	.188										24.0	15.0	11.0	7.5	5.7											
.250	.250											30.0	20.0	14.0	10.5	8.5										
.313	.313												36.0	25.0	18.0	13.0	10.0									
.375	.375													38.0	28.0	20.0	15.0	11.0								
.500	.500														52.0	39.0	30.0	22.0	16.0							
.625	.625															70.0	52.0	38.0	27.0	20.0	15.0					
.750	.750																		66.0	43.0	32.0	22.0				
1.000	1.000																			90.0	61.0	44.0				
1.250	1.250																				102.0	70.0				

Force required per linear foot to bend mild steel with air bend dies. (Measured in tons.) TONS/FT