

Tonnage Chart



Force required in tons per foot to air bend 60,000 PSI tensile strength mild steel.
Adjust proportionally for tensile strength of other materials or bend type.

Tensile Strength Multiplier:	Soft Aluminum & Brass - .50 1/2 Hard Brass - 1.25	Aluminum Alloys - .75 Stainless Steel - 1.50
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METAL THICKNESS		WIDTH (IN.) OF FEMALE VEE DIE OPENING																
		<i>Shaded area denotes recommended vee die, where the width is 8 times the metal thickness.</i>																
Ga.	In.	1/4	5/16	3/8	1/2	5/8	3/4	7/8	1	1-1/8	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	
22	.030	1.8	1.4	1.0	.8													
20	.036	2.9	2.1	1.7	1.2	1.0												
18	.048		4.0	3.0	2.2	1.6	1.3											
16	.060			5.6	3.7	2.7	2.2	1.7										
14	.075				6.0	4.6	3.4	3.0	2.5	2.1								
13	.090					6.8	5.5	4.3	3.7	3.3	2.9							
12	.105					10.1	7.4	6.4	5.4	4.4	4.0	3.2						
11	.120						10.5	8.8	7.4	6.2	5.4	4.3	3.2					
10	.135							11.3	9.6	8.3	7.0	5.6	4.1					
9	.150								13.1	11.9	9.2	6.7	5.2	3.5				
7	.188									16.4	14.0	12.0	7.6	5.8	4.5			
1/4	.250										28.8	22.0	16.0	11.5	9.1	7.5	6.2	
5/16	.312											38.0	26.0	20.0	16.0	12.5	10.6	
3/8	.375												41.0	29.9	24.0	19.4	16.0	
7/16	.437													45.2	35.0	28.0	24.0	
1/2	.500															47.9	39.0	32.0
5/8	.625																65.5	57.9
3/4	.750																	92.3
Bend Radii		1/32	3/64	1/16	5/64	3/32	1/8	9/64	5/32	11/64	3/16	15/64	5/16	25/64	15/32	35/64	5/8	

Bend Multiplier

<u>Bend Type</u>	<u>Multiplier</u>	<u>Bend Type</u>	<u>Multiplier</u>
Bottom Bend	2.5	Material Thickness Offset	5 to 10
Large Radius	3 to 5	Large Offset	2.5 to 10
Teardrop Hem	3.75	3-Bend 'W' Die	5 to 10
Flat Hem	5	3-Bend 'V' Vee	3.5 to 10
2-Bend U-Channel	5	Half Round Rib	6
4-Bend Hat Channel	5 to 10		



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