

AIR BENDING FORCE CHART

DIE OPENING SELECTION FORMULA

t	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 × t	8 × t	10 × t	12 × t

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

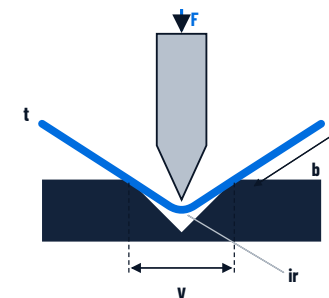
t Material thickness (tensile strength: 56,892 – 71,115 lbs/in²)

b Minimum flange length

F Tons per 1 foot

V Die opening

ir Inside bend radius



TONS PER FOOT – MILD STEEL

MILD STEEL GAUGE · DEC.	4	6	7	8	10	12	14	16	18	20	25	32	40	50	63	80	100	125	160	200	250	mm
	.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	V in.
	.125	.188	.203	.219	.281	.344	.406	.438	.531	.563	.688	.875	1.125	1.375	1.750	2.188	2.813	3.500	4.500	5.500	6.875	b in.
	.031	.031	.047	.047	.063	.078	.094	.109	.125	.141	.156	.203	.250	.313	.406	.516	.625	.750	1.031	1.313	1.625	ir in.
20	.036	5.4	3.6	3.0	2.5	2.0	1.7															
18	.048		6.8	5.8	4.8	3.7	2.7	2.4	2.0													
16	.060				7.8	6.2	5.0	4.2	3.5	3.1	2.7											
14	.075					11.0	8.2	7.0	5.6	4.6	4.1	3.1										
12	.105						16.0	13.0	11.0	9.4	7.4	5.5	4.0									
11	.120							16.0	13.0	10.0	7.3	5.0	3.8									
10	.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	10.6	8.6						
.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	18.0			
.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 (F) required per linear foot to bend mild steel with air bend dies, measured in tons.

Note: add 50% more pressure when bending stainless steel.