

# AIR BENDING FORCE CHART

## Die Opening Selection Formula

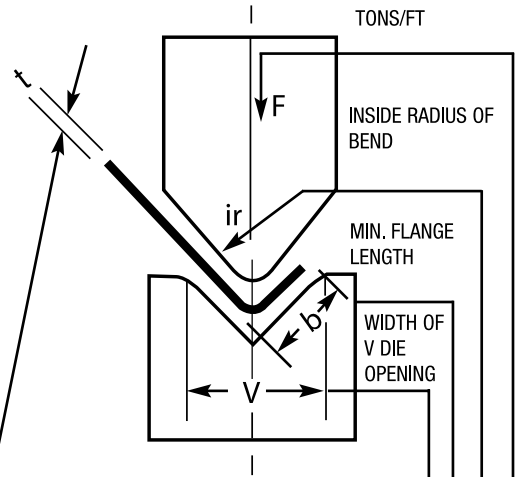
<b>t</b>	GAUGE	12 OR LESS	11-5/16"	3/8" - 1/2"	5/8" UP
	INCHES	.105 OR LESS	.120 - .313	.375 - .500	.625 AND UP
"V" SIZE		6 X t	8 X t	10 X t	12 X t

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<sup>2</sup>)
- F** Tons per 1 foot
- ir** Inside bend radius
- b** Minimum flange length
- v** Die opening



<b>t</b>		THICKNESS																				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	v	b	ir	
		.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				
		.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				
		.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				
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