

Air Force Bending Chart

The Air Force Bending chart is a chart showing the tonnage used for bending different thickness sheetmetal. It is useful for sheetmetal designers as it specifies the bend radius and tooling to be used for different thicknesses. It is shown here for mild steel. Designers can use this as a guide when designing the minimum flange length possible with the tooling for different V blocks as well as the bend radius.

The following charts are based on the Armada Air Force bend guide.

Air Force bending Chart for Mild steel Rm=450N/mm ²																						
Thickness	Die opening V	4	6	7	8	10	12	14	16	18	20	25	32	40	50	63	80	100	125	160	200	
	Minimum bend length bmin	2.8	4	5	5.5	7	8.5	10	11	13.5	14	18	22	28	35	45	55	71	89	113		
	Bending radius r	0.7	1	11	1.3	1.6	2	2.3	2.6	3	3.3	4.0	5.0	6.5	8	10	13	16	20	26		
	0,5mm	40	30																			
	0,6mm	60	40	40	40																	
	0,8mm		70	70	50	40																
	1,0mm		110	100	80	70																
	1,2mm			140	120	100	80	70	60													
	1,5mm				170	150	130	110	90	80												
	2,0mm						220	190	170	150	130	110										
	2,5mm								280	250	220	180	140									
	3,0mm									340	300	240	190	150								
	3,5mm											330	260	200	160	130						
	4,0mm											430	340	270	210	170						
	4,5mm												440	340	270	210						
	5,0mm												520	420	330	260	210					
	6,0mm												750	600	480	380	300	240				
	7,0mm															520	410	330	260			
	8,0mm															850	680	530	430			
9,0mm																670	540	430				
10mm																850	670	530	420			
12mm																	960	780	600	550		
15mm																			950	750		

Air Force bending Chart for Stainless steel Rm=700N/mm²

	4	6	7	8	10	12	14	16	18	20	25	32	40	50	63	80	100	125	160	200	250	
Die opening V	4	6	7	8	10	12	14	16	18	20	25	32	40	50	63	80	100	125	160	200	250	
Minimum bend length bmin	2.8	4	5	5.5	7	8.5	10	11	13.5	14	18	22	28	35	45	55	71	89	113	140	170	
Bending radius r	0.7	1	1.1	1.3	1.6	2	2.3	2.6	3	3.3	4.0	5.0	6.5	8	10	13	16	20	26	33	41	
0,5mm	60	50																				
0,6mm	90	60	60	60																		
0,8mm	120	80	80	60	60																	
0,9mm		110	110	80	70																	
1,0mm		130	120	100	80	70																
1,2mm		170	10	120	110	80																
1,5mm			210	180	150	120	110	90														
2,0mm						200	170	150	130	120												
2,5mm						390	290	260	230	200	170											
3,0mm								390	350	300	250	190										
4,0mm									510	450	360	290	230									
5,0mm											650	510	410	320	260							
6,0mm												780	630	500	390	320						
8,0mm													900	720	570	450	360					
10mm															1020	810	650	510				
12mm																1280	1010	800	630			
15mm																	1440	1170	900	830		
20mm																		1800	1410	1140	1670	
25mm																			2500	2080	2550	
30mm																				3150	3600	