

Air bending force chart

Mild steel

Die opening V		4	6	7	8	10	12	14	16	18	20	25	32	40	50	63	80	100	125	160	200
Minimum flange length b_{min}		2.8	4	5	5.5	7	8.5	10	11	13.5	14	17.5	22	28	35	45	55	71	89	113	
Bending radius ir		0.7	1.0	1.1	1.3	1.6	2.0	2.3	2.6	3.0	3.3	4.0	5.0	6.5	8.0	10	13	16	20	26	
Thickness (t) →	0.5 mm	40	30																		
	0.6 mm	60	40	40	40																
	0.8 mm		70	70	50	40															
	1.0 mm		110	100	80	70															
	1.2 mm			140	120	100	80	70	60												
	1.5 mm				170	150	130	110	90	80											
	2.0 mm					220	190	170	150	130	110										
	2.5 mm							280	250	220	180	140									
	3.0 mm								340	300	240	190	150								
	3.5 mm										330	260	200	160	130						
	4.0 mm										430	340	270	210	170						
	4.5 mm											440	340	270	210						
	5.0 mm											520	420	330	260	210					
	6.0 mm											750	600	480	380	300	240				
	7.0 mm															520	410	330	260		
	8.0 mm															850	680	530	430		
	9.0 mm																670	540	430		
	10 mm																850	670	530	420	
	12 mm																	960	780	600	550
	15 mm																			950	750

Air bending force chart for mild steel ($R_m \approx 450 \text{ N/mm}^2$)

Air bending force chart

Stainless steel

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 flange length b_{min}		2.8	4	5	5.5	7	8.5	10	11	13.5	14	17.5	22	28	35	45	55	71	89	113	140	175
Bending radius ir		0.7	1.0	1.1	1.3	1.6	2.0	2.3	2.6	3.0	3.3	4.0	5.0	6.5	8.0	10	13	16	20	26	33	41
Thickness (t) →	0.5 mm	60	50																			
	0.6 mm	90	60	60	60																	
	0.7 mm	120	80	80	60	60																
	0.8 mm		110	110	80	70																
	0.9 mm		130	120	100	80	70															
	1.0 mm		170	150	120	110	80															
	1.2 mm			210	180	150	120	110	90													
	1.5 mm						200	170	150	130	120											
	2.0 mm						330	290	260	230	200	170										
	2.5 mm								390	350	300	250	190									
	3.0 mm									510	450	360	290	230								
	4.0 mm											650	510	410	320	260						
	5.0 mm												780	630	500	390	320					
	6.0 mm													900	720	570	450	360				
	8.0 mm															1020	810	650	510			
	10 mm																1280	1010	800	630		
	12 mm																	1440	1170	900	830	
	15 mm																		1800	1410	1140	
	20 mm																			2500	2080	1670
	25 mm																				3150	2550
	30 mm																					3600

Air bending force chart for stainless steel ($R_m \approx 700 \text{ N/mm}^2$)