

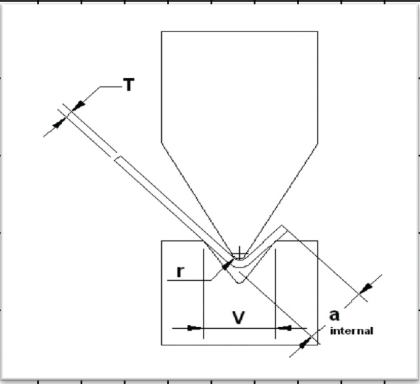
WRIGHTFORM

Air Bending Tonnage Chart

Tonnes (ton.) required for air bending material of a tensile strength of 42kg/mm², one metre long, with a thickness ('T'), and inner material radius ('r'). Minimum dimension of flange (*a) and 'V' width (V) is also shown.

Calculations are based on a tensile of 42 kg/mm². Stainless steel with a 60 kg/mm² increase the tonnage by 40%. Aluminium with a 30 kg/mm² decrease the tonnage by 30%

r	1	1.2	1.6	2	2.5	2.8	3	3.5	3.5	5	5.5	6	8	9.5	10	12	16	19	21	23	25	26	28	30	32	36	40	45	50	r	
V	6	8	10	12	16	18	20	24	25	32	35	40	50	60	63	80	100	120	130	140	150	160	180	190	200	230	260	290	320	V	
0.5	2.7																														ton.
	3.6																														a
0.8	7	5.1																													ton.
	3.8	4.8																													a
1	11	8	6.4																												ton.
	4	5	6																												a
1.2		12	9.2	7.7																											ton.
		5.2	6.2	7.3																											a
1.6			17	14	10																										ton.
			6.5	7.6	9.6																										a
2				22	16	14	13	11																							ton.
				9	10	11	12	14																							a
2.5					25	22	20	17	16	13																					ton.
					11	12	13	14	15	19																					a
3							30	24	23	18	17	14																			ton.
							13	15	16	20	21	24																			a
4									42	32	30	26	21																		ton.
									17	20	22	24	30																		a
5										50	46	43	32	27																	ton.
										21	23	25	30	36																	a
6											60	46	39	35																	ton.
											26	31	37	39																	a
8												82	69	66	51	41															ton.
												33	38	40	48	59															a
10															104	80	64	53	49	46											ton.
															42	50	60	71	76	82											a
12																120	92	77	71	66	62	58									ton.
																51	62	72	78	83	88	94									a
16																	136	126	117	109	102	91	86	82	71						ton.
																	76	82	86	92	97	107	113	118	134						a
18																		148	138	130	115	109	104	90	80	72					ton.
																		88	93	99	109	114	120	135	151	167					a
20																															ton.
																															a



RULE OF THUMB
 Up to 6mm. Vee Width = 8 x Material Thickness
 Above 6mm = 10 x Material Thickness

NOTE:
 The bending pressure is directly proportional to the length of the workpiece. Total bending force is therefore calculated by multiplying length in metres by the figure taken from the chart.

PLATE THICKNESS	1	2	3	4	5	6	8	10	12	16	18	20
MIN. INNER RADIUS	1	2	3	5	6	8	12	16	20	28	36	40

Minimum recommended inner radius for corresponding thickness of plate.
 For special materials check with your steel supplier regarding minimum bend radii.