

Bending chart

Bending force required for free bending per tonne as material S-355

V = the width of the v-hole of the matrix (mm)

R = internal bending radius (mm)

A = minimum inside dimension of the edging side (mm)

S = material thickness

V mm	R mm	A mm	1	1.5	2	2.5	3	4	5	6	8	10	12	14	15	16	18	20	25	30	40	50	60	
10	1.5	6	7	15	27																			
14	2	8.5	5	11	19	30																		
20	3	12	3.3	7	13	21	30	53																
25	3.5	15	2.6	6	11	17	24	43	67															
30	4.5	19		5	9	14	20	35	56	80														
40	6	25		4	7	10	15	27	42	60	108													
50	7	32			5	8	12	22	34	48	86	135												
60	8	38				7	10	18	28	40	72	112	162											
70	10	44					9	15	24	35	62	96	138	188										
80	12	51					8	13	21	30	53	84	121	165	190									
90	15	56						12	19	27	48	75	108	147	168	191								
100	16	62						11	17	24	43	67	97	132	151	172								
120	18	73							14	20	36	56	80	110	126	144	182							
140	20	85							12	17	31	48	69	94	108	123	156	192						
160	25	98								15	27	42	61	82	95	108	136	168						
180	27	112									24	37	54	73	84	96	121	150	234					
200	30	126									22	34	48	66	76	86	109	135	210					
225	32	143										30	43	59	67	77	97	120	187					
250	36	161										27	39	53	61	69	87	108	168	242				
280	42	181											35	47	54	62	78	96	150	216				
315	45	203												32	44	51	57	73	90	140	202	325	450	600

When the recommended width of the v-hole is exceeded, the material bends by the dimension exceeded on the sides of the internal bending radius. For example, the S = 20 V-250 90° bending angle is rounded by 10 mm (dimension to be subtracted from the blank).

400 minimum internal bending radius required for bending 400 wear steels at room temperature is transverse to the rolling direction S x 3, longitudinally S x 4 and the minimum width of the v-hole S x 10. For example: wear plate 400 S = 10 mm, internal bending radius longitudinal 40 mm and the minimum width of the v-hole is 100 mm.

We will be happy to answer additional questions and options regarding bending.