

PUNCH PRESSURE CHART

Tons of pressure required to punch mild steel

IGE - TONNAGE CALCULATION CHART for tons of pressure required to punch mild steel

Material Thickness	gauge	inches	mm	Hole Diameter																			
				inches mm	1/8" 3.18	3/16" 4.78	1/4" 6.35	5/16" 7.92	3/8" 9.52	7/16" 11.11	1/2" 12.7	9/16" 14.3	5/8" 15.9	11/16" 17.5	3/4" 19.0	13/16" 20.6	7/8" 22.2	15/16" 23.8	1" 25.4	1.1/2" 38.1	2" 50.8	2.1/2" 63.5	3" 76.2
20	0.036	0.91	0.4	0.5	0.7	0.9	1.1	1.2	1.4	1.6	1.8	1.9	2.1	2.3	2.5	2.6	2.8	4.2	5.6	7.0	8.5	9.9	11.3
18	0.048	1.22	0.5	0.7	0.9	1.2	1.4	1.6	1.9	2.1	2.4	2.6	2.8	3.1	3.3	3.5	3.8	5.5	7.5	9.4	11.3	13.0	15.0
16	0.062	1.57	0.6	0.9	1.2	1.5	1.8	2.1	2.3	2.6	2.9	3.2	3.5	3.8	4.1	4.4	4.7	7.0	9.5	11.7	14.0	16.5	18.8
14	0.075	1.90	0.7	1.1	1.5	1.8	2.2	2.6	2.9	3.3	3.7	4.0	4.4	4.8	5.1	5.5	5.9	8.8	11.7	14.7	17.6	20.5	23.5
12	0.105	2.67	1.0	1.5	2.1	2.6	3.1	3.6	4.1	4.6	5.1	5.7	6.2	6.7	7.2	7.7	8.2	12.3	16.4	20.5	24.5	28.8	32.8
11	0.120	3.05	1.2	1.8	2.4	2.9	3.5	4.1	4.7	5.1	5.9	6.2	7.1	7.6	8.3	8.8	9.4	14.0	18.8	23.5	28.2	32.7	37.6
10	0.135	3.43	1.3	2.0	2.6	3.3	4.0	4.6	5.3	5.9	6.6	7.3	7.9	8.6	9.2	9.9	10.6	15.9	21.0	26.5	31.7	37.0	42.2
3/16"	0.188	4.78	n/a	2.8	3.7	4.6	5.5	6.4	7.4	8.3	9.2	10.1	11.0	12.0	12.9	13.8	14.8	22.0	29.5	36.8	44.2	51.5	60.0
1/4"	0.250	6.35	n/a	n/a	4.9	6.1	7.4	8.6	9.8	11.1	12.3	13.5	14.7	16.0	17.2	18.4	19.7	34.4	39.3	49.0	60.0	68.7	78.5
5/16"	0.312	7.92	n/a	n/a	n/a	7.8	9.2	10.7	12.3	13.9	15.4	17.0	18.5	20.0	21.5	23.0	24.6	43.0	49.0	61.5	73.5	86.0	98.0
3/8"	0.375	9.52	n/a	n/a	n/a	n/a	11.1	12.8	14.8	16.5	18.5	20.2	22.1	23.8	25.8	27.5	29.5	51.5	59.0	73.6	88.4	103.0	118.0
1/2"	0.500	12.7	n/a	n/a	n/a	n/a	n/a	n/a	19.7	22.0	24.6	26.9	29.5	31.8	34.4	36.8	39.4	68.8	78.5	98.2	118.0	137.0	1.6

This chart should be used to calculate the punching tonnage required for various applications, both manual and power assisted.

1. First select your hole diameter from the scale running horizontally across the top of the chart.
2. Then read down the scale on the left hand side of the chart to find your material thickness.
3. The figure shown in red at the intersection of these two figures is the tonnage requirement.
(e.g. a 1/2" dia. Hole through 3mm mild steel requires 4.7 tons of pressure)

For further guidelines and information on hole-punching, please refer to 'Hole Punching - technical data sheet' available from our website at www.hartleige.com

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