PRESS BRAKE PUNCHING CHART

Tons required per hole to punch mild steel having max 72,000 PSI tensile strength and max 40,000 PSI yield strength.

Hole Diameter		1/8" 0.125	3/16" 0.1875	1/4" 0.250	5/16" 0.3175	3/8" 0.375	7/16" 0.5625	1/2" 0.500	9/16" 0.4375	5/8" 0.625	11/16" 0.6875	3/4" 0.750	13/16" 0.8125	7/8" 0.875	15/16" 0.9375	1" 1.000
Metal Gauge	Thickness (in)	Force in tons														
28	0.015	0.24	0.24	0.36	0.48	0.48	0.60	0.72	0.84	0.84	0.96	1.08	1.20	1.32	1.44	1.56
26	0.018	0.24	0.36	0.48	0.48	0.60	0.72	0.84	0.96	1.08	1.20	1.22	1.32	1.44	1.56	1.68
24	0.024	0.24	0.48	0.60	0.72	0.84	0.96	1.08	1.32	1.44	1.56	1.68	1.80	1.92	2.16	2.88
22	0.030	0.36	0.48	0.72	0.84	1.08	1.20	1.44	1.56	1.80	1.92	2.16	2.28	2.52	2.64	2.88
20	0.036	0.48	0.60	0.84	1.08	1.32	1.44	1.68	1.92	2.16	2.28	2.52	2.76	3.00	3.12	3.36
18	0.048	0.72	0.84	1.08	1.44	1.68	1.92	2.28	2.52	2.88	3.12	3.36	3.72	3.96	4.20	4.56
16	0.060	0.84	1.08	1.44	1.80	2.16	2.52	2.76	3.12	3.48	3.84	4.20	4.56	4.92	5.28	5.64
14	0.075	1.20	1.32	1.80	2.16	2.64	3.12	3.48	3.96	4.44	4.80	5.28	5.76	6.12	6.60	7.08
12	0.105	1.44	1.80	2.52	3.12	3.72	4.32	4.92	5.52	6.12	6.84	7.44	8.04	8.64	9.24	9.84
11	0.120	1.56	2.16	2.88	3.48	4.20	4.92	5.64	6.12	7.08	7.44	8.52	9.12	9.96	10.56	11.28
10	0.135	-	2.40	3.12	3.96	4.80	5.52	6.36	7.08	7.92	8.76	9.48	10.32	11.04	11.88	12.72
5/32"	0.157	-	2.76	3.72	4.56	5.52	6.48	7.32	8.28	9.24	10.08	11.04	12.00	12.84	13.80	14.76
3/16"	0.188	-	3.36	4.44	5.52	6.60	7.68	8.88	9.96	11.04	12.12	13.20	14.40	15.48	16.56	17.76
1/4"	0.250	-	-	5.88	7.32	8.88	10.32	11.76	13.32	14.76	16.20	17.64	19.20	20.64	22.08	23.64
3/8"	0.375	-	-	-	-	13.32	15.36	17.76	19.80	22.20	24.24	26.52	28.56	30.96	33.00	35.40
1/2"	0.500	-	-	-	-	-	-	23.64	26.40	29.52	31.80	35.40	38.16	41.28	44.16	47.28
5/8"	0.625	-	-	-	-	-	-	-	-	36.96	40.44	44.28	47.88	51.60	55.20	59.04
3/4"	0.750	-	-	-	-	-	-	-	-	-	-	53.16	57.24	62.04	66.24	70.80
1"	1.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	72.00

For smooth trouble-free operation, the punching tonnage should not exceed two-thirds of the rated capacity of the press. In multiple punching setups, the punches should be stepped by setting punches at different levels. If the punches are on two levels, the punching tonnage required may be divided by two. If they are set on the three levels, the tonnage may be divided by three.