



3501 Marvel Dr. Oshkosh, WI 54902  
 Phone: 920-236-7200 Fax: 920-236-7209  
 Toll Free: 800-472-9464  
 WWW.SAWING.COM



## Tonnage required to punch round holes in mild steel\*

Hole Dia.	Material Thickness												
	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	7/8"	1"	1-1/8"	1-1/4"	1-3/8"	1-1/2"	1-5/8"
1/8"	1.6												
1/4"	3.2	6.4											
3/8"	4.8	9.5	14										
1/2"	6.4	12.7	18.6	25.5									
5/8"	8	16	23.3	32	40								
3/4"	9.5	19	28	38.3	48	57							
7/8"	11	22.3	32.5	44.5	56	67	78						
1"	12.8	25.5	37.3	51	64	77	89	102					
1-1/8"	14.3	28.7	42	57	72	86	100	115	129				
1-1/4"	16	32	46.5	64	80	96	111	128	144	160			
1-3/8"	17.5	35	51.3	70	88	105	123	140	158	175	193		
1-1/2"	19	38.3	56	76.5	95.7	115	134	153	172	191	210	230	
1-5/8"	20.7	41.5	60	83	104	124	145	166	187	207	228	248	270
1-3/4"	22	44.7	65	89	112	134	156	179	201	223	245	268	290
2"	25.5	51	74.5	102	128	153	178	204	230	255	280	306	
2-1/4"	28.7	57.5	84	115	144	172	201	230	258	287	315		
2-1/2"	32	64	93	127	160	191	223	255	287	319			
2-3/4"	35	70	102	140	175	210	245	281	316				
3"	38	76.5	112	153	191	230	268	306					
3-1/4"	41.5	83	121	166	207	248	290						
3-1/2"	44.7	89.3	130	179	223	268							
3-3/4"	48	95.7	140	191	240								
4"	51	102	150	204									

### Tonnage Conversion Factors\*

Material:	Conversion Factors:
Aluminium (2024-0)	.36
Brass (1/4 hard)	.7
Copper (1/2 hard)	.52
Steel (50% Carbon)	1.6
Steel Cold Drawn (1018)	1.24
Stainless Steel (303)	1.5

This chart is based on punching mild steel with a 65,000 lb. shear strength. All information in this chart should be verified before applying it to your work particularly when using combinations that approach the machine's maximum tonnage capacity.