



# Coyote Steel & Co.

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NO MINIMUM ORDERS

Monday-Friday 8-5, Saturday 9-12

Warehouse and Office "Cross Street @ Garfield"

2030 Cross Street • Eugene, OR USA 97402

www.CoyoteSteel.com

DRILL SIZE	DECIMAL	DRILL SIZE	DECIMAL	DRILL SIZE	DECIMAL
0.1mm	.0039	24	.1520	<b>25/64</b>	<b>.3906</b>
0.2mm	.0079	23	.1540	10mm	.3937
0.3mm	.0118			X	.3970
80	.0135	<b>5/32</b>	<b>.1562</b>	Y	.4040
79	.0145	22	.1570	<b>13/32</b>	<b>.4062</b>
<b>1/64</b>	<b>.0156</b>	4mm	.1575	Z	.4130
0.4mm	.0157	21	.1590	10.5mm	.4134
78	.0160	20	.1610	<b>27/64</b>	<b>.4219</b>
77	.0180	19	.1660	11mm	.4331
0.5mm	.0197	18	.1695	<b>7/16</b>	<b>.4375</b>
76	.0200	<b>11/64</b>	<b>.1719</b>	11.5mm	.4528
75	.0210	17	.1730	29/64	.4531
74	.0225	16	.1770	<b>15/32</b>	<b>.4688</b>
0.6mm	.0236	4.5mm	.1772	12mm	.4724
73	.0240	15	.1800	31/64	.4844
72	.0250	14	.1820	12.5mm	.4921
71	.0260	13	.1850	<b>1/2</b>	<b>.5000</b>
0.7mm	.0276	<b>3/16</b>	<b>.1875</b>	13mm	.5118
70	.0280	12	.1890	33/64	.5156
69	.0292	11	.1910	17/32	.5312
68	.0310	10	.1935	13.5mm	.5315
<b>1/32</b>	<b>.0312</b>	9	.1960	35/64	.5469
0.8mm	.0315	9	.1960	14mm	.5512
67	.0320	5mm	.1969	<b>9/16</b>	<b>.5625</b>
66	.0330	8	.1990	14.5mm	.5709
65	.0350	7	.2010	37/64	.5781
0.9mm	.0354	<b>13/64</b>	<b>.2031</b>	15mm	.5906
64	.0360	6	.2040	19/32	.5938
62	.0380	5	.2055	39/64	.6094
61	.0390	4	.2090	15.5mm	.6102
1 mm	.0394	3	.2130	<b>5/8</b>	<b>.6250</b>
60	.0400	5.5mm	.2165	16mm	.6299
59	.0410	<b>7/32</b>	<b>.2188</b>	41/64	.6406
58	.0420	2	.2210	16.5mm	.6496
57	.0430	1	.2280	21/32	.6562
56	.0465	A	.2340	17mm	.6693
<b>3/64</b>	<b>.0469</b>	<b>15/64</b>	<b>.2344</b>	43/64	.6719
55	.0520	6mm	.2362	<b>11/16</b>	<b>.6875</b>
54	.0550	B	.2380	17.5mm	.6890
1.5mm	.0591	C	.2420	45/64	.7031
53	.0595	D	.2460	18mm	.7087
<b>1/16</b>	<b>.0625</b>	<b>1/4 &amp; E</b>	<b>.2500</b>	23/32	.7188
52	.0635	6.5mm	.2559	18.5mm	.7283
51	.0670	F	.2570	47/64	.7344
50	.0700	G	.2610	19mm	.7480
49	.0730	<b>17/64</b>	<b>.2656</b>	<b>3/4</b>	<b>.7500</b>
48	.0760	H	.2660	49/64	.7656
<b>5/64</b>	<b>.0781</b>	I	.2720	19.5mm	.7677
47	.0785	J	.2770	25/32	.7812
2mm	.0787	7mm	.2756	20mm	.7874
46	.0810	K	.2810	51/64	.7969
45	.0820	<b>9/32</b>	<b>.2812</b>	20.5mm	.8071
44	.0860	L	.2900	<b>13/16</b>	<b>.8125</b>
43	.0890	M	.2950	21mm	.8268
42	.0935	7.5mm	.2953	53/64	.8281
<b>3/32</b>	<b>.0938</b>	<b>19/64</b>	<b>.2969</b>	27/32	.8438
41	.0960	N	.3020	21.5mm	.8465
40	.0980	<b>5/16</b>	<b>.3125</b>	55/64	.8594
2.5mm	.0984	8mm	.3150	22mm	.8661
39	.0995	O	.3160	<b>7/8</b>	<b>.8750</b>
38	.1015	P	.3230	22.5mm	.8858
37	.1040	<b>21/64</b>	<b>.3281</b>	57/64	.8906
36	.1065	Q	.3320	23mm	.9055
<b>7/64</b>	<b>.1094</b>	<b>5/16</b>	<b>.3125</b>	29/32	.9062
35	.1100	8mm	.3150	59/64	.9219
34	.1110	O	.3160	23.5mm	.9252
33	.1130	P	.3230	<b>15/16</b>	<b>.9375</b>
32	.1160	<b>23/64</b>	<b>.3594</b>	24mm	.9449
3mm	.1181	N	.3020	61/64	.9531
31	.1200	<b>5/16</b>	<b>.3125</b>	24.5mm	.9646
<b>1/8</b>	<b>.1250</b>	8mm	.3150	31/32	.9688
30	.1285	O	.3160	25mm	.9843
29	.1360	P	.3230	63/64	.9844
3.5mm	.1378	<b>21/64</b>	<b>.3281</b>	<b>1</b>	<b>1.000</b>
28	.1405	Q	.3320		
<b>9/64</b>	<b>.1406</b>	<b>3/8</b>	<b>.3750</b>		
27	.1440	9.5mm	.3740		
26	.1470	S	.3480		
25	.1495	9mm	.3543		
		T	.3580		
		<b>23/64</b>	<b>.3594</b>		
		U	.3680		
		<b>3/8</b>	<b>.3750</b>		
		V	.3770		
		W	.3860		

TAP DRILL SIZES				TAP DRILL SIZES	
CUTTING TAPS BASED ON APPROX. 75% FULL THREADING		CLEARANCE HOLE DRILLS		RECOMMENDED SIZES SUITE 6H THREADS	
TAP SIZE	CUTTING TAP DRILL SIZE	CLOSE FIT	FREE FIT	TAP SIZE	DRILL SIZE
0-80	3/64	52	50	M1.6 x 0.35	55
1-64	53	48	46	M1.8 x 0.35	53
1-72	53	48	46	M2 x 0.4	52
2-56	50	43	41	M2.2 x 0.45	50
2-64	50	43	41	M2.5 x 0.45	46
3-48	47	37	35	M3 x 0.5	39
3-56	45	37	35	M3.5 x 0.6	32
4-40	43	32	30	M4 x 0.7	30
4-48	42	32	30	M4.5 x 0.75	25
5-40	38	30	29	M5 x 0.8	19
5-44	37	30	29	M6 x 1	8
6-32	35	27	25	M7 x 1	B
6-40	36	27	25	M8 x 1.25	H
8-32	29	18	16	M8 x 1	J
8-36	29	18	16	M10 x 1.5	R
10-24	25	9	7	M10 x 1.25	11/32
10-32	21	9	7	M12 x 1.75	13/32
12-24	16	2	1	M12 x 1.25	27/64
12-28	14	2	1	M14 x 2	15/32
1/4-20	7	F	H	M14 x 1.5	1/2
1/4-28	3	F	H	M16 x 2	35/64
5/16-18	F	P	Q	M16 x 1.5	37/64
5/16-24	I	P	Q	M18 x 2.5	39/64
3/8-16	5/16	W	X	M18 x 1.5	21/32
3/8-24	Q	W	X	M20 x 2.5	11/16
7/16-14	U	29/64	15/32	M20 x 1.5	47/64
7/16-20	25/64	29/64	15/32	M22 x 2.5	49/64
1/2-13	27/64	33/64	17/32	M22 x 1.5	13/16
1/2-20	29/64	33/64	17/32	M24 x 3	53/64
9/16-12	31/64	37/64	19/32	M24 x 2	7/8
5/8-11	17/32	41/64	21/32	M27 x 3	15/16
5/8-18	37/64	41/64	21/32	M27 x 2	1
3/4-10	21/32	49/64	25/32	M30 x 3.5	1-3/64
3/4-16	11/16	49/64	25/32	M30 x 2	1-7/64
7/8-9	49/64	57/64	29/32	M33 x 3.5	1-11/64
7/8-14	13/16	57/64	29/32	M33 x 2	31mm
1-8	7/8	1-1/64	1-1/32	M36 x 4	32mm
1-12	59/64	1-1/64	1-1/32	M36 x 3	33mm
1-14	15/16	1-1/64	1-1/32	M39 x 4	35mm
				M39 x 3	36mm

## MECHANICAL PROPERTIES

### ALLOY STEELS

GRADE	TENSILE	YIELD	MACH%	HB
CD Ann. 4130	95,000	80,000	70%	179
HR Ann. 4140	89,000	62,000	57%	190
HTSR, TG&P 4140	120,000	100,000	55%	255
CD Ann. 41L40	105,000	85,000	86%	187
HR HT 4150	115,000	95,000	50%	269/321
HR Q&T 4142	110,000	95,000	55%	255
HR Ann. 4340	100,000	65,000	50%	212
CD Ann. 86L20	95,000	80,000	86%	179
5160	128,000	90,000	-	269

### STAINLESS STEELS

GRADE	TENSILE	YIELD	MACH%	HB
303	85,000/95,000	30,000/40,000	73%	160/180
304	80,000/90,000	30,000/40,000	45%	150/180
316	75,000/90,000	30,000/40,000	40%	150/180
416	80,000/100,000	55,000/65,000	90%	190/220
440C	110,000	65,000	40%	260

### STANDARD CARBON & RESULFURIZED STEELS

GRADE	TENSILE	YIELD	MACH%	HB
CD 1018	64,000	54,000	66%	126
HR 1020	54,000	30,000	52%	111
TG&P 1045	91,000	77,000	56%	179
HR A-36	58,000/80,000	MIN 36,000	-	116-167
Stressproof®	132,300	100,000	83%	269

### STANDARD CARBON REPHOSPHORIZED & RESULFURIZED STEELS

GRADE	TENSILE	YIELD	MACH%	HB
12L14	70,000	60,000	193%	165
1215	80,000	60,000	136%	165

### ALUMINUM

GRADE	TENSILE	YIELD
6063-T5	27,000	21,000
6061-T6	45,000	40,000
5052-H32	33,000	28,000
7075-T6	83,000	73,000
2011-T3	55,000	43,000
2024-T3	70,000	50,000
5086-H32	42,000	30,000
3003-H22	23,000	20,000

### FASTENERS / THREADED ROD

GRADE	TYPICAL STEEL
2	A-36/1018
5	1040
B-7	4140
8	4140

### PIPE TAP DRILL SIZE

TAP SIZE	NPT** TAP DRILL	NPTF** TAP DRILL	NPS TAP DRILL
1/16	D	C	1/4
1/8	Q	Q	11/32
1/4	7/16	7/16	7/16
3/8	9/16	9/16	37/64
1/2	45/64	45/64	23/32
3/4	29/32	29/32	59/64
1	1-9/64	1-9/64	1-5/32
1-1/4	1-31/64	1-31/64	1-1/2
1-1/2	1-47/64	1-23/32	1-3/4
2	2-13/64	2-3/16	2-7/32

\*\*For tapping without reaming

### SIMPLE STEEL WEIGHT FORMULAS

Simply enter data indicated (Decimal Inches), move from left to right making computations by factors as shown.

ROUND .....Diameter x Diameter x 2.6729 = Lbs. Per Foot  
 FLAT .....Thickness x Width x 3.4032 = Lbs. Per Foot  
 SQUARE.....Diameter x Diameter x 3.4032 = Lbs. Per Foot  
 HEXAGON.....\*Diameter x Diameter x 2.9437 = Lbs. Per Foot  
 OCTAGON.....\*Diameter x Diameter x 2.8193 = Lbs. Per Foot  
 PIPE.....Actual O.D. - Wall x Wall x 10.68 = Lbs. Per Foot  
 TUBE.....O.D. - Wall x Wall x 10.68 = Lbs. Per Foot  
 SHEET.....Thickness x Width x Length x .2904 = Lbs. Each  
 COIL.....O.D. x O.D. - I.D. x I.D. x .2223 = Lbs. Per Inch of Width  
 SHEET CIRCLE..Thickness x Diameter x Diameter x .228 = Lbs. Each  
 PLATE.....Thickness x Width x Length x .2836 = Lbs. Each

PLATE SHAPES:  
 CIRCLE.....Diameter x Diameter x Thickness x .2227 = Lbs. Each  
 RING.....Diameter x Diameter - I.D. x I.D. x Thickness x .2227 = Lbs. Each  
 CIRCLE SECTOR ..Radius x Radius x Number of Degrees in Arc x Thickness x .0025 = Lbs. Each  
 TRIANGLE.....Base Length x Height x Thickness x .1418 = Lbs. Each (Right Angle)  
 TRAPEZOID.....Side "A" + Side "B" x Height x Thickness x 14.18 = Lbs. Each (2 Sides Parallel)  
 HEXAGON.....Side Length x Side Length x .7367 = Lbs. Each (Equal Sides)  
 OCTAGON.....Side Length x Side Length x 1.3692 = Lbs. Each

NOTE: FORMULAS ARE BASED ON NOMINAL WEIGHTS AT .2836 LBS. PER CUBIC INCH AND SHOULD BE CONSIDERED APPROXIMATIONS ONLY RATHER THAN ACTUAL SCALE WEIGHT.

\*DIAMETER MEASURED BY DISTANCE ACROSS FLATS.

This chart is designed to provide basic information for general reference. Every effort has been made to make this chart as accurate as possible. However, there may be mistakes. For more specific information see manufacturer specification sheets. If advice or assistance is required, the services of an expert in this field should be sought. The publisher, writer, or any and all distributors of this chart make no express or implied warranties and take no responsibility for errors or omissions of the matter contained herein.