

SQUARE INCH CONVERSION CHART
Diameter in Inches/Area in Square Inches

Dia. (In.)	Area (In. ²)	Dia. (In.)	Area (In. ²)	Dia. (In.)	Area (In. ²)	Dia. (In.)	Area (In. ²)
1/8	0.01	5	19.63	10	78.53	17-1/4	233.58
1/4	0.05	5-1/8	20.63	10-1/8	80.52	17-1/2	240.40
3/8	0.11	5-1/4	21.64	10-1/4	82.50	17-3/4	247.32
1/2	0.20	5-3/8	22.69	10-3/8	84.54		
9/16	0.25	5-1/2	23.75	10-1/2	86.60	18	254.36
5/8	0.31	5-5/8	24.85	10-5/8	88.66	18-1/4	261.45
3/4	0.44	5-3/4	25.96	10-3/4	91.00	18-1/2	268.66
7/8	0.60	5-7/8	27.11	10-7/8	92.89	18-3/4	275.97
1	0.79	6	28.27	11	95.00	19	283.43
1-1/8	0.99	6-1/8	29.47	11-1/8	97.21	19-1/4	290.88
1-1/4	1.22	6-1/4	30.70	11-1/4	99.50	19-1/2	198.49
1-3/8	1.49	6-3/8	31.92	11-3/8	101.62	19-3/4	306.19
1-1/2	1.76	6-1/2	33.18	11-1/2	104.00		
1-5/8	2.07	6-5/8	34.47	11-5/8	106.14	20	314.00
1-3/4	2.40	6-3/4	35.80	11-3/4	108.40	20-1/4	321.89
1-7/8	1.76	6-7/8	37.12	11-7/8	110.75	20-1/2	330.09
						20-3/4	337.98
2	3.14	7	38.48	12	113.00		
2-1/8	3.55	7-1/8	39.87	12-1/4	117.78	21	346.18
2-1/4	3.97	7-1/4	41.30	12-1/2	122.75	21-1/4	354.47
2-3/8	4.43	7-3/8	42.72	12-3/4	127.70	21-1/2	362.86
2-1/2	4.90	7-1/2	44.17			21-3/4	371.35
2-5/8	5.41	7-5/8	45.66	13	132.00		
2-3/4	5.93	7-3/4	47.20	13-1/4	137.81	22	379.00
2-7/8	6.49	7-7/8	48.71	13-1/2	143.06	22-1/4	388.62
				13-3/4	148.41	22-1/2	397.40
						22-3/4	406.28
3	7.06	8	50.26	14	153.86		
3-1/8	7.67	8-1/8	51.85	14-1/4	159.40	23	415.26
3-1/4	8.25	8-1/4	53.50	14-1/2	165.04	23-1/4	424.35
3-3/8	8.95	8-3/8	55.09	14-1/2	165.04	23-1/2	433.51
3-1/2	9.62	8-1/2	56.74	14-3/4	170.78	23-3/4	442.78
3-5/8	10.32	8-5/8	58.43				
3-3/4	11.04	8-3/4	60.00	15	176.62		
3-7/8	11.79	8-7/8	61.86	15-1/4	182.55	24	452.16
				15-1/2	188.59	24-1/4	461.62
				15-3/4	194.72	24-1/2	471.19
						24-3/4	480.85
4	12.56	9	63.61	16	200.96		
4-1/8	13.36	9-1/8	65.40	16-1/4	207.28	25	490.88
4-1/4	14.18	9-1/4	67.20	16-1/2	213.71	25-1/4	500.74
4-3/8	15.03	9-3/8	69.03	16-1/2	213.71	25-1/2	510.71
4-1/2	15.90	9-1/2	71.00	16-3/4	220.23	25-3/4	520.77
4-5/8	16.80	9-5/8	72.76				
4-3/4	17.72	9-3/4	74.50	17	226.86		
4-7/8	18.67	9-7/8	76.59				

Area of a circle = Pi(π) x Radius squared
($A = \pi * R^2$)

$\pi = 3.1416$: $R = 1/2$ Diameter

Example - what is the area of a 4-1/4" round of M-10 steel?

1/2 Diameter = $1/2 * 4.25 = 2.125 = R$

$R^2 = 2.125 * 2.125 = 4.516$

$A = \pi * 4.516 = 3.1416 * 4.516$

$A = 14.18$ sq. in.