

Timken® Steel

Special Bar Quality Requirements

Representative Sample of Carbon & Alloy Grades

10XX series
11XX series
13XX series
15XX series
33XX series
40XX series
41XX series
43XX series
50XX series
51XX series
86XX series
88XX series
93XX series
SCM4XX series
SCR4XX series
52100-bearing
MicroTec®
HF1
S38MS1V
St-52
16MnCr5
9Cr1Mo
13Cr
42CrMo4
410/420
A485-X
– Other Grades Available Upon Request

The Timken Company is a leading global manufacturer of carbon and alloy bar, seamless mechanical tubing and precision components. We produce ingot-cast and continuous-cast steel bars for the automotive, bearing, energy and industrial markets. Combining our rigorous steelmaking and rolling practices, with advanced inspection capabilities, our steel bar products will help your product perform more effectively in the most demanding applications. With more than 450 different grades available, we're certain to have the custom steel solution you need. Customers like you turn to The Timken Company for the innovation, quality and value-added options to help their product perform more efficiently and improve their performance.

CONDITIONS

- Hot Rolled
- Rough Turned

QUALITY LEVELS

- Aircraft
- Bearing
- Commercial
- Parapremium™ (AMS 2304)

TIMKEN

Where You Turn

HEAT TREATMENTS

- Anneal
- Temper
- Stress-Relieved
- Normalize
- Quench & Temper (Stress-free)
- Spheroidize Anneal

BENEFITS

- Dedicated Application Development and Technology Center for your specific need
- Large starting section sizes for increased finish size capability and performance
- Technical expertise gained from years of working in demanding applications in different markets

MINIMUM QUANTITY

- 10-ton minimums for standard grades

SIZE RANGE

- Rounds: 1 7/8"† (48mm) through 15" (381mm)
 - Squares: Round-Cornered 3 1/5" (81mm) through 12" (305mm)
- † Currently capable to outsource to smaller sizes with internal capability for sizes to 1" (25mm) in mid 2008.



shape	size (in)	size (in)	TFW	size (mm)	kg/m
round*	1.875	1 7/8	9.39	47.63	13.97
round*	1.938	2	10.03	49.23	14.93
round*	1.969	2	10.35	50.01	15.40
round*	2.000	2	10.68	50.80	15.89
round*	2.125	2 1/8	12.06	53.98	17.94
round*	2.156	2 1/6	12.41	54.76	18.47
round*	2.188	2 1/5	12.78	55.58	19.03
round*	2.250	2 1/4	13.52	57.15	20.12
round*	2.281	2 2/7	13.89	57.94	20.68
round*	2.375	2 3/8	15.06	60.33	22.41
round*	2.438	2 4/9	15.87	61.93	23.62
round*	2.500	2 1/2	16.69	63.50	24.83
round*	2.563	2 4/7	17.54	65.10	26.10
round	2.625	2 5/8	18.40	66.68	27.38
round	2.750	2 3/4	20.19	69.85	30.05
round	2.875	2 7/8	22.07	73.03	32.84
round	3.000	3	24.03	76.20	35.76
round	3.063	3	25.05	77.80	37.28
round	3.125	3 1/8	26.07	79.38	38.80
round	3.187	3 1/5	27.12	80.95	40.36
round	3.250	3 1/4	28.20	82.55	41.97
round	3.313	3 1/3	29.31	84.15	43.61
round	3.375	3 3/8	30.41	85.73	45.26
round	3.500	3 1/2	32.71	88.90	48.67
round	3.625	3 5/8	35.09	92.08	52.21
round	3.750	3 3/4	37.55	95.25	55.88
round	3.875	3 7/8	40.09	98.43	59.66
round	4.000	4	42.72	101.60	63.57
round	4.125	4 1/8	45.43	104.78	67.61
round	4.250	4 1/4	48.23	107.95	71.77
round	4.375	4 3/8	51.11	111.13	76.05
round	4.500	4 1/2	54.07	114.30	80.46
round	4.625	4 5/8	57.11	117.48	84.99
round	4.750	4 3/4	60.24	120.65	89.65
round	4.875	4 7/8	63.45	123.83	94.43
round	4.921	5	64.66	125.00	96.23
round	5.000	5	66.75	127.00	99.33
round	5.125	5 1/8	70.13	130.18	104.36
round	5.250	5 1/4	73.59	133.35	109.52
round	5.500	5 1/2	80.77	139.70	120.20
round	5.750	5 3/4	88.28	146.05	131.37
round	6.000	6	96.12	152.40	143.04
round	6.250	6 1/4	104.30	158.75	155.21
round	6.500	6 1/2	112.81	165.10	167.88
round	6.750	6 3/4	121.65	171.45	181.04
round	7.000	7	130.83	177.80	194.70
round	7.250	7 1/4	140.34	184.15	208.85
round	7.500	7 1/2	150.19	190.50	223.50
round	7.750	7 3/4	160.37	196.85	238.65
round	8.000	8	170.88	203.20	254.30
round	8.250	8 1/4	181.73	209.55	270.44
round	8.500	8 1/2	192.91	215.90	287.08
round	9.000	9	216.27	228.60	321.84
round	9.250	9 1/4	228.45	234.95	339.97

shape	size (in)	size (in)	TFW	size (mm)	kg/m
round	9.500	9 1/2	240.97	241.30	358.60
round	9.750	9 3/4	253.82	247.65	377.72
round	10.000	10	267.00	254.00	397.34
round	10.250	10 1/4	280.52	260.35	417.45
round	10.500	10 1/2	294.37	266.70	438.07
round	11.000	11	323.07	279.40	480.78
round	11.500	11 1/2	353.11	292.10	525.48
round	12.000	12	384.48	304.80	572.17
round	12.500	12 1/2	417.19	317.50	620.84
round	13.000	13	451.23	330.20	671.50
round	14.000	14	523.32	355.60	778.79
round	15.000	15	600.75	381.00	894.01

square*	3.187	3 1/5	29.88	80.98	44.46
square*	3.312	3 1/3	32.61	84.12	48.52
square*	3.375	3 3/8	34.04	85.73	50.66
square	3.500	3 1/2	35.54	88.90	52.89
square	3.625	3 5/8	38.57	92.08	57.39
square*	3.959	—	43.75	100.56	65.11
square	4.000	4	44.86	101.60	66.76
square*	4.146	4 1/7	48.89	105.30	72.76
square*	4.173	4 1/6	49.66	105.99	73.91
square	4.250	4 1/4	51.87	107.95	77.19
square	4.500	4 1/2	59.30	114.30	88.24
square	4.750	4 3/4	62.98	120.65	93.72
square	5.000	5	71.26	127.00	106.04
square	5.188	5 1/5	77.76	131.78	115.72
square	5.250	5 1/4	79.96	133.35	118.99
square	5.500	5 1/2	89.09	139.70	132.58
square	5.750	5 3/4	88.03	146.05	131.00
square	6.000	6	98.00	152.40	145.84
square	6.125	6 1/8	103.15	155.58	153.50
square	6.250	6 1/4	108.40	158.75	161.32
square	6.375	6 3/8	113.76	161.93	169.30
square	6.500	6 1/2	119.23	165.10	177.43
square	6.562	6 5/9	121.98	166.67	181.52
square	6.625	6 5/8	124.80	168.28	185.72
square	6.750	6 3/4	130.48	171.45	194.17
square	7.000	7	142.15	177.80	211.54
square**	7.250	7 1/4	150.00	184.15	223.22
square**	7.500	7 1/2	160.00	190.50	238.11
square**	7.610	7 3/5	170.00	193.30	252.99
square**	7.750	7 3/4	175.00	196.85	260.43
square**	8.000	8	200.00	203.20	297.63
square**	8.500	8 1/2	210.00	215.90	312.51
square**	8.750	8 3/4	250.00	222.25	372.04
square**	9.000	9	270.00	228.60	401.80
square**	9.500	9 1/2	300.00	241.30	446.45
square**	10.000	10	330.00	254.00	491.09
square**	10.500	10 1/2	370.00	266.70	550.62
square**	11.000	11	400.00	279.40	595.27
square**	11.125	11 1/8	410.00	282.58	610.15
square**	12.000	12	480.00	304.80	714.32

* These sizes require special review at the mill due to limited capability within these ranges.

** TFW estimated due to non-standard corner radius per ASTM-A29

For more information on Timken steel and other value-added services, call 866-284-6536, fax 330-471-7032 or visit our website at www.timken.com/products/alloysteel.

TIMKEN

Where You Turn

Bearings • Steel • Precision
Components • Lubrication • Seals
Remanufacture and Repair •
Industrial Services

www.timken.com

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