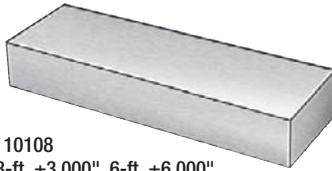




Carbon Steel— Rectangular Bars

- 1018 alloy meets ASTM 108, AISI 1018
 - Length tolerance: 1-ft. ±1.000", 3-ft. ±3.000", 6-ft. ±6.000"
- Note: Additional sizes are available; call 1-800-GRAINGER (472-4643).



Thickness (Decimal)	Width	Width Tolerance	Thickness Tolerance	1 ft. LENGTH Item No.	3 ft. LENGTH Item No.	6 ft. LENGTH Item No.
1018 Carbon Steel						
0.125 in	1 in	+0.000/-0.004"	+0.000/-0.004"	—	—	2HG Y6
	1 1/2 in	+0.000/-0.004"	+0.000/-0.004"	—	—	2HG Y8
	2 in	+0.000/-0.005"	+0.000/-0.005"	—	—	2HG Y9
0.187 in	1 in	+0.000/-0.004"	+0.000/-0.004"	—	—	2HG Z5
	1 1/2 in	+0.000/-0.004"	+0.000/-0.004"	—	—	2HG Z5
	2 in	+0.000/-0.005"	+0.000/-0.005"	—	—	2HG Z5
0.25 in	1 in	+0.000/-0.004"	+0.000/-0.004"	—	—	2HG Z5
	1 1/2 in	+0.000/-0.004"	+0.000/-0.004"	—	—	2HG Z5
	2 in	+0.000/-0.005"	+0.000/-0.005"	—	—	2HG Z5
	2 1/2 in	+0.000/-0.005"	+0.000/-0.005"	—	—	2HG Z5
	3 in	+0.000/-0.005"	+0.000/-0.005"	—	—	2HG Z5
	3 1/2 in	+0.000/-0.006"	+0.000/-0.006"	—	—	2HG Z5
	4 in	+0.000/-0.006"	+0.000/-0.006"	—	—	2HG Z5
	5 in	+0.000/-0.008"	+0.000/-0.008"	—	—	2HG Z5
	6 in	+0.000/-0.008"	+0.000/-0.008"	—	—	2HG Z5
	1 in	+0.000/-0.004"	+0.000/-0.004"	—	—	2HG Z5
0.375 in	1 in	+0.000/-0.005"	+0.000/-0.005"	—	—	2HG Z5
	1 1/2 in	+0.000/-0.005"	+0.000/-0.005"	—	—	2HG Z5
	2 in	+0.000/-0.005"	+0.000/-0.005"	—	—	2HG Z5
	2 1/2 in	+0.000/-0.006"	+0.000/-0.006"	—	—	2HG Z5
	3 in	+0.000/-0.006"	+0.000/-0.006"	—	—	2HG Z5
	4 in	+0.000/-0.006"	+0.000/-0.006"	—	—	2HG Z5
	4 1/2 in	+0.000/-0.008"	+0.000/-0.008"	—	—	2HG Z5
	5 in	+0.000/-0.008"	+0.000/-0.008"	—	—	2HG Z5
	6 in	+0.000/-0.008"	+0.000/-0.008"	—	—	2HG Z5
	1 in	+0.000/-0.003"	+0.000/-0.003"	—	—	2HG Z5
0.5 in	1 in	+0.000/-0.004"	+0.000/-0.004"	—	—	2HG Z5
	1 1/2 in	+0.000/-0.004"	+0.000/-0.004"	—	—	2HG Z5
	2 in	+0.000/-0.005"	+0.000/-0.005"	—	—	2HG Z5
	3 in	+0.000/-0.005"	+0.000/-0.005"	—	—	2HG Z5
	4 in	+0.000/-0.006"	+0.000/-0.006"	—	—	2HG Z5
	6 in	+0.000/-0.008"	+0.000/-0.008"	—	—	2HG Z5
	1 in	+0.000/-0.004"	+0.000/-0.004"	—	—	2HG Z5
	1 1/2 in	+0.000/-0.004"	+0.000/-0.004"	—	—	2HG Z5
	2 in	+0.000/-0.005"	+0.000/-0.005"	—	—	2HG Z5
	3 in	+0.000/-0.005"	+0.000/-0.005"	—	—	2HG Z5
0.625 in	1 in	+0.000/-0.004"	+0.000/-0.004"	—	—	2HG Z5
	1 1/2 in	+0.000/-0.004"	+0.000/-0.004"	—	—	2HG Z5
	2 in	+0.000/-0.005"	+0.000/-0.005"	—	—	2HG Z5
	2 1/2 in	+0.000/-0.005"	+0.000/-0.005"	—	—	2HG Z5
	3 in	+0.000/-0.005"	+0.000/-0.005"	—	—	2HG Z5
	4 in	+0.000/-0.006"	+0.000/-0.006"	—	—	2HG Z5
	5 in	+0.000/-0.008"	+0.000/-0.008"	—	—	2HG Z5
	6 in	+0.000/-0.008"	+0.000/-0.008"	—	—	2HG Z5
	1 in	+0.000/-0.004"	+0.000/-0.004"	—	—	2HG Z5
	1 1/2 in	+0.000/-0.004"	+0.000/-0.004"	—	—	2HG Z5
0.75 in	1 in	+0.000/-0.005"	+0.000/-0.005"	—	—	2HG Z5
	1 1/2 in	+0.000/-0.005"	+0.000/-0.005"	—	—	2HG Z5
	2 in	+0.000/-0.005"	+0.000/-0.005"	—	—	2HG Z5
	2 1/2 in	+0.000/-0.006"	+0.000/-0.006"	—	—	2HG Z5
	3 in	+0.000/-0.006"	+0.000/-0.006"	—	—	2HG Z5
	4 in	+0.000/-0.006"	+0.000/-0.006"	—	—	2HG Z5
	5 in	+0.000/-0.008"	+0.000/-0.008"	—	—	2HG Z5
	6 in	+0.000/-0.008"	+0.000/-0.008"	—	—	2HG Z5
	1 in	+0.000/-0.004"	+0.000/-0.004"	—	—	2HG Z5
	1 1/2 in	+0.000/-0.004"	+0.000/-0.004"	—	—	2HG Z5
1 in	1 in	+0.000/-0.005"	+0.000/-0.005"	—	—	2HG Z5
	1 1/2 in	+0.000/-0.005"	+0.000/-0.005"	—	—	2HG Z5
	2 in	+0.000/-0.005"	+0.000/-0.005"	—	—	2HG Z5
	2 1/2 in	+0.000/-0.006"	+0.000/-0.006"	—	—	2HG Z5
	3 in	+0.000/-0.006"	+0.000/-0.006"	—	—	2HG Z5
	4 in	+0.000/-0.006"	+0.000/-0.006"	—	—	2HG Z5
	5 in	+0.000/-0.008"	+0.000/-0.008"	—	—	2HG Z5
	6 in	+0.000/-0.008"	+0.000/-0.008"	—	—	2HG Z5
	1 in	+0.000/-0.004"	+0.000/-0.004"	—	—	2HG Z5
	1 1/2 in	+0.000/-0.004"	+0.000/-0.004"	—	—	2HG Z5
1.25 in	1 in	+0.000/-0.005"	+0.000/-0.005"	—	—	2HG Z5
	1 1/2 in	+0.000/-0.005"	+0.000/-0.005"	—	—	2HG Z5
	2 in	+0.000/-0.005"	+0.000/-0.005"	—	—	2HG Z5
	2 1/2 in	+0.000/-0.006"	+0.000/-0.006"	—	—	2HG Z5
	3 in	+0.000/-0.006"	+0.000/-0.006"	—	—	2HG Z5
	4 in	+0.000/-0.006"	+0.000/-0.006"	—	—	2HG Z5
	5 in	+0.000/-0.008"	+0.000/-0.008"	—	—	2HG Z5
	6 in	+0.000/-0.008"	+0.000/-0.008"	—	—	2HG Z5
	1 in	+0.000/-0.004"	+0.000/-0.004"	—	—	2HG Z5
	1 1/2 in	+0.000/-0.004"	+0.000/-0.004"	—	—	2HG Z5
1.5 in	1 in	+0.000/-0.005"	+0.000/-0.005"	—	—	2HG Z5
	1 1/2 in	+0.000/-0.005"	+0.000/-0.005"	—	—	2HG Z5
	2 in	+0.000/-0.005"	+0.000/-0.005"	—	—	2HG Z5
	2 1/2 in	+0.000/-0.006"	+0.000/-0.006"	—	—	2HG Z5
	3 in	+0.000/-0.006"	+0.000/-0.006"	—	—	2HG Z5
	4 in	+0.000/-0.006"	+0.000/-0.006"	—	—	2HG Z5
	5 in	+0.000/-0.008"	+0.000/-0.008"	—	—	2HG Z5
	6 in	+0.000/-0.008"	+0.000/-0.008"	—	—	2HG Z5
	1 in	+0.000/-0.004"	+0.000/-0.004"	—	—	2HG Z5
	1 1/2 in	+0.000/-0.004"	+0.000/-0.004"	—	—	2HG Z5
1.75 in	1 in	+0.000/-0.005"	+0.000/-0.005"	—	—	2HG Z5
	1 1/2 in	+0.000/-0.005"	+0.000/-0.005"	—	—	2HG Z5
	2 in	+0.000/-0.005"	+0.000/-0.005"	—	—	2HG Z5
	2 1/2 in	+0.000/-0.006"	+0.000/-0.006"	—	—	2HG Z5
	3 in	+0.000/-0.006"	+0.000/-0.006"	—	—	2HG Z5
	4 in	+0.000/-0.006"	+0.000/-0.006"	—	—	2HG Z5
	5 in	+0.000/-0.008"	+0.000/-0.008"	—	—	2HG Z5
	6 in	+0.000/-0.008"	+0.000/-0.008"	—	—	2HG Z5
	1 in	+0.000/-0.004"	+0.000/-0.004"	—	—	2HG Z5
	1 1/2 in	+0.000/-0.004"	+0.000/-0.004"	—	—	2HG Z5
2 in	1 in	+0.000/-0.005"	+0.000/-0.005"	—	—	2HG Z5
	1 1/2 in	+0.000/-0.005"	+0.000/-0.005"	—	—	2HG Z5
	2 in	+0.000/-0.005"	+0.000/-0.005"	—	—	2HG Z5
	2 1/2 in	+0.000/-0.006"	+0.000/-0.006"	—	—	2HG Z5
	3 in	+0.000/-0.006"	+0.000/-0.006"	—	—	2HG Z5
	4 in	+0.000/-0.006"	+0.000/-0.006"	—	—	2HG Z5
	5 in	+0.000/-0.008"	+0.000/-0.008"	—	—	2HG Z5
	6 in	+0.000/-0.008"	+0.000/-0.008"	—	—	2HG Z5
	1 in	+0.000/-0.004"	+0.000/-0.004"	—	—	2HG Z5
	1 1/2 in	+0.000/-0.004"	+0.000/-0.004"	—	—	2HG Z5
2.5 in	1 in	+0.000/-0.005"	+0.000/-0.005"	—	—	2HG Z5
	1 1/2 in	+0.000/-0.005"	+0.000/-0.005"	—	—	2HG Z5
	2 in	+0.000/-0.005"	+0.000/-0.005"	—	—	2HG Z5
	2 1/2 in	+0.000/-0.006"	+0.000/-0.006"	—	—	2HG Z5
	3 in	+0.000/-0.006"	+0.000/-0.006"	—	—	2HG Z5
	4 in	+0.000/-0.006"	+0.000/-0.006"	—	—	2HG Z5
	5 in	+0.000/-0.008"	+0.000/-0.008"	—	—	2HG Z5
	6 in	+0.000/-0.008"	+0.000/-0.008"	—	—	2HG Z5
	1 in	+0.000/-0.004"	+0.000/-0.004"	—	—	2HG Z5
	1 1/2 in	+0.000/-0.004"	+0.000/-0.004"	—	—	2HG Z5
3.5 in	1 in	+0.000/-0.005"	+0.000/-0.005"	—	—	2HG Z5
	1 1/2 in	+0.000/-0.005"	+0.000/-0.005"	—	—	2HG Z5
	2 in	+0.000/-0.005"	+0.000/-0.005"	—	—	2HG Z5
	2 1/2 in	+0.000/-0.006"	+0.000/-0.006"	—	—	2HG Z5
	3 in	+0.000/-0.006"	+0.000/-0.006"	—	—	2HG Z5
	4 in	+0.000/-0.006"	+0.000/-0.006"	—	—	2HG Z5
	5 in	+0.000/-0.008"	+0.000/-0.008"	—	—	2HG Z5
	6 in	+0.000/-0.008"	+0.000/-0.008"	—	—	2HG Z5
	1 in	+0.000/-0.004"	+0.000/-0.004"	—	—	2HG Z5
	1 1/2 in	+0.000/-0.004"	+0.000/-0.004"	—	—	2HG Z5



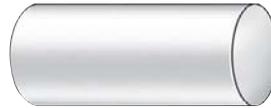
Tool Steel—Drill Rods

- Length: 36"
- Length tolerance: +.125"/-.000"
- Standards: UNS T30102, SAE J437, ASTM A-681-94, FEDERAL QST-570 REV C

A2 Grade is used to replace O1 Grade for applications requiring safer heat treatment, less distortion during hardening, and greater wear resistance. Exhibit less movement during heat treating. O1 Grade provides dimensional stability (low movement) during hardening and high hardness response from low quenching temperatures. W1 Grade are used where a simple heat treatment is more important than wear resistance or high dimensional stability during heat treating.

Note: Additional sizes and grades are available; call 1-800-GRAINGER (472-4643).

Fractional Size	Decimal Equivalent	Dia. Tolerance	Item No.
A2 Grade - Air Hardening			
1/8"	0.125 in	+/-0.0005 in	33J238
1/4"	0.5 in	+/-0.001 in	33J236
3/8"	0.625 in	+/-0.001 in	33J246
1/2"	0.75 in	+/-0.001 in	33J241
3/4"	1 in	+/-0.001 in	33J234
O1 Grade - Oil Hardening			
1/8"	0.125 in	+/-0.0005 in	33J294
1/4"	0.1875 in	+/-0.0005 in	33J307
3/8"	0.25 in	+/-0.0005 in	33J293
1/2"	0.3125 in	+/-0.0005 in	33J311
3/4"	0.375 in	+/-0.0005 in	33J310
1"	0.4375 in	+/-0.0005 in	33J315
1 1/4"	0.5 in	+/-0.001 in	33J292
1 1/2"	0.5625 in	+/-0.001 in	33J319
1 3/4"	0.625 in	+/-0.001 in	33J314
2"	0.6875 in	+/-0.001 in	33D709
2 1/4"	0.75 in	+/-0.001 in	33J309
2 1/2"	0.875 in	+/-0.001 in	33J318
3"	1 in	+/-0.001 in	33J290
3 1/2"	0.9843 in	+/-0.001 in	41NR83
4"	1.5 in	+/-0.001 in	33J295
W1 Grade - Water Hardening			
1/8"	0.125 in	+/-0.0005 in	33J352
1/4"	0.1562 in	+/-0.0005 in	33J363
3/8"	0.25 in	+/-0.0005 in	33J351
1/2"	0.3125 in	+/-0.0005 in	33J362
3/4"	0.375 in	+/-0.0005 in	33J361
1"	0.5 in	+/-0.001 in	33J350
1 1/4"	0.625 in	+/-0.001 in	33J365
1 1/2"	0.75 in	+/-0.001 in	33J360
2"	1 in	+/-0.001 in	33J348



Carbon Steel— Cylindrical Rods

- 1045 alloy meets ASTM A108, UNS# G10450, AISI 1045
- 1018 alloy meets ASTM 108, UNS# G10180, AISI 1018
- 1144 alloy meets ASTM A311, UNS# G11