

Drill Rods

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- Oil hardening
- 36" length
- Ground and polished

HEAT TREATMENT

Preheat: 1200°F until thoroughly soaked. Harden at 1475°F. Hold 20 minutes per inch of greatest cross-section after tool reaches furnace temperature (minimum holding time – 20 minutes). Quench in warm oil to 150°F. Temper immediately 2 hours per inch of greatest cross-section at temperatures shown to achieve the desired hardness.

NOTE: Water hardened or air hardened available upon request

STANDARD TOLERANCES

SIZE RANGE (inches)	Tolerance
2.000 to 0.500	±0.001
0.499 to 0.125	±0.0005
0.124 and smaller	±0.0003

PRODUCT

ANSI O1 ground and polished drill rod

TYPICAL ANALYSIS

C .95, MN 1.20, Si .35, Cr .50, W .50

TEMPERING

Tempering Temp. °F	Hardness Rockwell C
None	65
300	63
350	61
400	60.5
450	59
500	58
600	56
800	48-49

Inch

Size	Decimal Equivalent (Inch)	Weight per 36" (lbs)	Code	Size	Decimal Equivalent (Inch)	Weight per 36" (lbs)	Code	Size	Decimal Equivalent (Inch)	Weight per 36" (lbs)	Code
2	2.000	32.04	219597	47/64	0.734	4.31	219638	M	0.295	0.699	219680
1-15/16	1.937	30.06	219598	23/32	0.718	4.12	219639	L	0.290	0.675	219681
1-7/8	1.875	28.14	219599	45/64	0.703	3.93	219640	9/32	0.282	0.639	219682
1-13/16	1.812	26.31	219600	11/16	0.687	3.75	219641	K	0.281	0.636	219683
1-3/4	1.750	24.51	219601	43/64	0.671	3.56	219642	J	0.277	0.615	219684
1-11/16	1.687	22.80	219602	21/32	0.656	3.43	219643	I	0.272	0.594	219685
1-5/8	1.625	21.15	219603	41/64	0.640	3.31	219644	H	0.266	0.564	219686
1-9/16	1.562	19.56	219783	5/8	0.625	3.12	219645	17/64	0.265	0.561	219687
1-1/2	1.500	18.00	219604	39/64	0.609	3.00	219646	G	0.261	0.543	219688
1-15/32	1.468	17.25	219605	19/32	0.593	2.81	219647	F	0.257	0.522	219689
1-7/16	1.437	16.53	219606	37/64	0.578	2.67	219648	E	0.250	0.501	219690
1-13/32	1.406	15.82	219607	9/16	0.562	2.53	219649	1/4	0.250	0.501	219690
1-3/8	1.375	15.14	219608	35/64	0.546	2.39	219650	D	0.246	0.483	219691
1-11/32	1.343	14.44	219609	17/32	0.531	2.25	219651	C	0.242	0.462	219692
1-5/16	1.312	13.80	219610	33/64	0.515	2.12	219652	B	0.238	0.450	219693
1-9/32	1.281	13.12	219611	1/2	0.500	2.000	219653	15/64	0.235	0.441	219694
1-1/4	1.250	12.50	219612	31/64	0.484	1.870	219654	A	0.234	0.441	219695
1-7/32	1.218	11.89	219613	15/32	0.468	1.740	219655	1	0.227	0.414	219696
1-3/16	1.187	11.31	219614	29/64	0.453	1.620	219656	2	0.221	0.387	219697
1-5/32	1.156	10.69	219615	7/16	0.437	1.530	219657	7/32	0.218	0.387	219698
1-1/8	1.125	10.12	219616	27/64	0.421	1.410	219658	3	0.212	0.363	219699
1-3/32	1.093	9.58	219617	Z	0.413	1.370	219659	4	0.207	0.345	219700
1-1/16	1.062	9.03	219618	13/32	0.406	1.310	219660	5	0.204	0.327	219701
1-1/32	1.013	8.49	219619	Y	0.404	1.280	219661	13/64	0.203	0.327	219702
1-1/64	1.015	8.26	219620	X	0.397	1.260	219662	6	0.201	0.321	219703
1	1.000	7.99	219621	25/64	0.390	1.220	219663	7	0.199	0.318	219704
63/64	0.984	7.74	219622	W	0.386	1.200	219664	8	0.197	0.312	219705
31/32	0.968	7.59	219623	V	0.377	1.140	219665	9	0.194	0.297	219706
61/64	0.953	7.24	219624	3/8	0.375	1.120	219666	10	0.191	0.288	219707
15/16	0.937	6.99	219625	U	0.368	1.060	219667	11	0.188	0.282	219708
59/64	0.921	6.78	219626	23/64	0.359	1.030	219668	3/16	0.187	0.282	219709
29/32	0.906	6.56	219627	T	0.358	1.020	219669	12	0.185	0.276	219710
57/64	0.890	6.35	219628	S	0.348	0.975	219670	13	0.182	0.267	219711
7/8	0.875	6.12	219629	11/32	0.343	0.939	219671	14	0.180	0.261	219712
55/64	0.859	5.91	219630	R	0.339	0.924	219672	15	0.178	0.255	219713
27/32	0.843	5.68	219631	Q	0.332	0.882	219673	16	0.175	0.246	219714
53/64	0.828	5.48	219632	21/64	0.328	0.861	219674	17	0.172	0.237	219715
13/16	0.812	5.25	219633	P	0.323	0.831	219675	11/64	0.171	0.234	219716
51/64	0.796	5.12	219634	O	0.316	0.813	219676	18	0.168	0.228	219717
25/32	0.781	4.87	219635	5/16	0.312	0.780	219677	19	0.164	0.216	219718
49/64	0.765	4.68	219636	N	0.302	0.726	219678	20	0.161	0.207	219719
3/4	0.750	4.50	219637	19/64	0.296	0.702	219679	21	0.157	0.198	219720

Drill Rods (continued)

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Inch (continued)

Size	Decimal Equivalent (Inch)	Weight per 36" (lbs)	Code
5/32	0.156	0.198	219721
22	0.155	0.195	219722
23	0.153	0.189	219723
24	0.151	0.183	219724
25	0.148	0.177	219725
26	0.146	0.171	219726
27	0.143	0.165	219727
9/64	0.140	0.156	219728
28	0.139	0.156	219729
29	0.134	0.144	219730
30	0.127	0.129	219731
1/8	0.125	0.126	219732
31	0.120	0.117	219733
32	0.115	0.108	219734

Size	Decimal Equivalent (Inch)	Weight per 36" (lbs)	Code
33	0.112	0.102	219735
34	0.110	0.096	219736
7/64	0.109	0.093	219737
35	0.108	0.093	219738
36	0.106	0.090	219739
37	0.103	0.087	219740
38	0.101	0.084	219741
39	0.099	0.078	219742
40	0.097	0.075	219743
41	0.095	0.072	219744
3/32	0.093	0.069	219745
42	0.092	0.069	219746
43	0.088	0.063	219747
44	0.085	0.057	219748

Size	Decimal Equivalent (Inch)	Weight per 36" (lbs)	Code
45	0.081	0.054	219749
46	0.079	0.051	219750
5/64	0.078	0.051	219751
47	0.077	0.048	219752
48	0.075	0.045	219753
49	0.072	0.042	219754
50	0.069	0.039	219755
51	0.066	0.036	219756
52	0.063	0.033	219757
1/16	0.062	0.033	219758

Metric

Size (mm)	Decimal Equivalent (Inch)	Weight per 36" (lbs)	Code
2	0.078	0.50	219759
3	0.118	0.11	219760
4	0.157	0.20	219761
5	0.197	0.31	219762
6	0.236	0.45	219763
7	0.275	0.60	219764
8	0.315	0.80	219765
9	0.354	1.00	219766

Size (mm)	Decimal Equivalent (Inch)	Weight per 36" (lbs)	Code
10	0.394	1.25	219767
11	0.433	1.50	219768
12	0.472	1.80	219769
13	0.512	2.00	219770
14	0.551	2.50	219771
15	0.590	2.80	219772
16	0.630	3.00	219773
17	0.669	3.50	219774

Size (mm)	Decimal Equivalent (Inch)	Weight per 36" (lbs)	Code
18	0.708	4.00	219775
19	0.748	4.50	219776
20	0.787	5.00	219777
21	0.827	5.50	219778
22	0.866	6.00	219779
23	0.905	6.50	219780
24	0.945	7.20	219781
25	0.948	7.70	219782