



**Charging the Industry
with Excellent Quality
and Service**

Buffalo Precision Products, Inc.

236 Sawyer Avenue, Tonawanda, New York 14150
Phone: 716-874-4353 - Toll Free: 800-944-2136 - Fax: 716-875-5935
Visit our website - www.buffaloprecision.com

Drill Rod

AISI SAE	O-1	Oil Hardening
AISI SAE	W-1	Water Hardening
AISI SAE	A-2	Air Hardening
AISI SAE	S-7	Air Hardening
AISI SAE	D-2	Air Hardening
AISI SAE	M-2	Air Hardening

Supercedes: Jan. 17, 2005



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and Quality**

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YOUR #1 DRILL ROD SOURCE

THE BUFFALO PRECISION DIFFERENCE

Most competitive drill rod prices in today's Market.

BUFFALO PRECISION sells to distributors only...AND WE MEAN IT!

100% backing of product.

(Material proving to be defective will be replaced immediately.)

BUFFALO PRECISION will provide consumer flyers to aid you with your drill rod sales.

BUFFALO PRECISION will drop ship directly to your customer at no additional charge.

BUFFALO PRECISION can manufacture any size drill rod in 2 weeks or less at a price unbeatable for this kind of service.

Friendly and courteous inside sales people.

Table of Contents

PAGE

4	Tolerances, Terms and Conditions of Sale.
5, 6	AISI O-1 Drill Rod standard fractional sizes including number and letter sizes.
7, 8	AISI W-1 Drill Rod standard fractional sizes including number and letter sizes.
9	AISI A-2 Drill Rod standard fractional sizes and millimeter diameters. AISI D-2 Drill Rod standard fractional sizes.
10	AISI O-1 Drill Rod millimeter diameters AISI S-7 Drill Rod standard fractional sizes. AISI M-2 Drill Rod standard fractional sizes.
11	Heat Treat Information on all 6 grades of Drill Rod processed by Buffalo Precision.

Buffalo Precision has **2** stocking representatives to better service our distributor. They carry a complete line of 3' lengths.

SOUTHWEST

Gulf Southwest Sales
11243 Leo Lane
Dallas, TX 75229

Phone: 1-214-350-0233

Fax: 1-214-350-5767

MIDWEST

Durrie Sales
411 Country Club
Bennsville, IL 60106

Phone: 1-800-423-2289

1-630-595-5595

Fax: 1-888-423-2289

Standard Tolerances

Size Range (Inches)	Plus or Minus
2.000 to .500	.001
.499 to .125	.0005
.124 and smaller	.0003

Drill Rod closer than standard tolerances is available at extra cost.

Quantity Discounts Available

Discounts based on an order placed at one time, shipping to one destination.
Sizes and Grades may be combined for Quantity Discounts.

Terms and Conditions of Sale

- 12' Orders under 250 lbs. Will be charged \$25.00 for packaging.
- Any UPS orders greater than 3'in length will be charged \$6.00 per package for handling; 60lb maximum per package.

TERMS:	1/2 % 10 Days, Net 30 Days.	
MINIMUM:	\$25.00 Per Order.	
RETURNS:	Subject to approval. Restocking charges may apply.	
SHORTAGES:	Must be reported within 10 days.	
DROP SHIPMENTS:	BP will drop ship to your customer directly at no additional charge.	
COLOR CODE:	O-1 BROWN	S-7 RED
	W-1 GREEN	D-2 WHITE
	A-2 BLUE	M-2 PURPLE

Buffalo Precision will Color Code to our customer's specifications.

AISI
SAE

0-1

Oil Hardening
Drill Rod

AISI
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0-1

Oil Hardening
Drill Rod

Size	Decimal Equiv. Inches	Weight Per 3' Piece
2	2.000	32.04
1-15/16	1.9375	30.06
1-7/8	1.875	28.14
1-13/16	1.8125	26.31
1-3/4	1.750	24.51
1-11/16	1.6875	22.80
1-5/8	1.625	21.15
1-9/16	1.5265	19.56
1-1/2	1.500	18.00
1-15/32	1.4687	17.25
1-7/16	1.4375	16.53
1-13/32	1.4062	15.82
1-3/8	1.375	15.14
1-11/32	1.3437	14.44
1-5/16	1.3125	13.80
1-9/32	1.2812	13.12
1-1/4	1.250	12.50
1-7/32	1.2187	11.89
1-3/16	1.1875	11.31
1-5/32	1.1562	10.69
1-1/8	1.125	10.12
1-3/32	1.0937	9.58
1-1/16	1.0625	9.03
1-1/32	1.0312	8.49
1-1/64	1.0156	8.26
1	1.000	8.01
63/64	0.9843	7.74
31/32	0.9687	7.59
61/64	0.9531	7.24
15/16	0.9375	6.99
59/64	0.9218	6.78
29/32	0.9062	6.56
57/64	0.8906	6.35
7/8	0.875	6.13
55/64	0.8593	5.91
27/32	0.8437	5.68
53/64	0.8281	5.48
13/16	0.8125	5.29
51/64	0.7968	5.12
25/32	0.7812	4.87

Size	Decimal Equiv. Inches	Weight Per 3' Piece
49/64	0.7656	4.68
3/4	0.750	4.50
47/64	0.7343	4.31
23/32	0.7187	4.12
45/64	0.7031	3.93
11/16	0.6875	3.75
43/64	0.6718	3.56
21/32	0.6562	3.43
41/64	0.6406	3.31
5/8	0.625	3.12
39/64	0.6093	3.00
19/32	0.5937	2.81
37/64	0.5781	2.67
9/16	0.5625	2.53
35/64	0.5468	2.39
17/32	0.5312	2.25
33/64	0.5156	2.12
1/2	0.500	2.00
31/64	0.4843	1.87
15/32	0.4687	1.74
29/64	0.4531	1.62
7/16	0.4375	1.53
27/64	0.4218	1.41
Z	0.413	1.37
13/32	0.4062	1.31
V	0.404	1.28
X	0.397	1.26
25/64	0.3906	1.22
W	0.386	1.20
V	0.377	1.14
3/8	0.375	1.12
U	0.368	1.06
23/64	0.3593	1.03
T	0.358	1.02
S	0.348	0.975
11/32	0.3437	0.939
R	0.339	0.924
O	0.332	0.882
21/64	0.3281	0.861
P	0.323	0.831

- All Sizes Available in 3 and 12 Foot Lengths
- A \$25.00 packaging charge will be added to 12 foot drill rod orders less than 250 lbs.

AISI
SAE

0-1

Oil Hardening
Drill Rod

AISI
SAE

0-1

Oil Hardening
Drill Rod

Size	Decimal Equiv. Inches	Weight Per 3' Piece
O	0.316	0.813
5/16	0.3125	0.780
N	0.302	0.726
19/64	0.2968	0.702
M	0.295	0.699
L	0.290	0.675
9/32	0.2812	0.639
K	0.281	0.636
J	0.277	0.615
I	0.272	0.594
H	0.266	0.564
17/64	0.2656	0.561
G	0.261	0.543
F	0.257	0.522
1/4	0.250	0.501
D	0.246	0.483
C	0.242	0.462
B	0.238	0.450
15/64	0.2343	0.441
A	0.234	0.441
1	0.227	0.414
2	0.219	0.387
7/32	0.2187	0.387
3	0.212	0.636
4	0.207	0.345
5	0.204	0.327
13/64	0.2031	.327
6	0.201	.321
7	0.199	0.318
8	0.197	0.312
9	0.194	0.297
10	0.191	0.288
11	0.188	0.282
3/16	0.1875	0.282
12	0.185	0.276
13	0.182	0.267
14	0.180	0.261
15	0.178	0.255
16	0.175	0.246
17	0.172	0.237
11/64	0.1718	0.234
18	0.168	0.228

Size	Decimal Equiv. Inches	Weight Per 3' Piece
19	0.164	0.216
20	0.161	0.207
21	0.157	0.198
5/32	0.1562	0.198
22	0.155	0.195
23	0.153	0.189
24	0.151	0.183
25	0.148	0.177
26	0.146	0.171
27	0.143	0.165
9/64	0.1406	0.156
28	0.139	0.156
29	0.134	0.144
30	0.127	0.129
1/8	0.125	0.126
31	0.120	0.117
32	0.115	0.108
33	0.112	0.102
34	0.110	0.096
7/64	0.1093	0.093
35	0.108	0.093
36	0.106	0.090
37	0.103	0.087
38	0.101	0.084
39	0.099	0.078
40	0.097	0.075
41	0.095	0.069
3/32	0.0937	0.069
42	0.092	0.069
43	0.088	0.063
44	0.085	0.057
45	0.081	0.054
46	0.079	0.051
5/64	0.0781	0.051
47	0.077	0.048
48	0.075	0.045
49	0.072	0.042
50	0.069	0.039
51	0.066	0.036
52	0.063	0.033
1/16	0.0625	0.030

- All Sizes Available in 3 and 12 Foot Lengths
- A \$25.00 packaging charge will be added to 12 foot drill rod orders less than 250 lbs.

AISI SAE **W-1** Water Hardening Drill Rod

AISI SAE **W-1** Water Hardening Drill Rod

Size	Decimal Equiv. Inches	Weight Per 3' Piece
2	2.000	32.04
1-15/16	1.9375	30.06
1-7/8	1.875	28.14
1-13/16	1.8125	26.31
1-3/4	1.750	24.51
1-11/16	1.6875	22.80
1-5/8	1.625	21.15
1-9/16	1.5625	19.56
1-1/2	1.500	18.00
1-15/32	1.4687	17.25
1-7/16	1.4375	16.53
1-13/32	1.4062	15.82
1-3/8	1.375	15.14
1-11/32	1.3437	14.44
1-5/16	1.3125	13.74
1-9/32	1.2812	13.04
1-1/4	1.250	12.34
1-7/32	1.2187	11.64
1-3/16	1.1875	10.94
1-5/32	1.1562	10.24
1-1/8	1.125	9.54
1-3/32	1.0937	8.84
1-1/16	1.0625	8.14
1-1/32	1.0312	7.44
1-1/64	1.0156	6.74
1	1.000	6.04
63/64	0.9843	5.34
31/32	0.9687	4.64
61/64	0.9531	3.94
15/16	0.9375	3.24
59/64	0.9218	2.54
29/32	0.9062	1.84
57/64	0.8906	1.14
7/8	0.875	0.44
55/64	0.8593	0.14
27/32	0.8437	0.04
53/64	0.8281	0.04
13/16	0.8125	0.04
51/64	0.7968	0.04
25/32	0.7812	0.04
49/64	0.7656	0.04

Size	Decimal Equiv. Inches	Weight Per 3' Piece
3/4	0.750	4.50
47/64	0.7343	4.31
23/32	0.7187	4.12
45/64	0.7031	3.93
11/16	0.6875	3.75
43/64	0.6718	3.56
21/32	0.6562	3.43
41/64	0.6406	3.31
5/8	0.625	3.12
39/64	0.6093	3.00
19/32	0.5937	2.81
37/64	0.5781	2.67
9/16	0.5625	2.53
35/64	0.5468	2.39
17/32	0.5312	2.25
33/64	0.5156	2.12
1/2	0.500	2.00
31/64	0.4843	1.87
15/32	0.4687	1.74
29/64	0.4531	1.62
7/16	0.4375	1.53
27/64	0.4218	1.41
Z	0.413	1.37
13/32	0.4062	1.31
Y	0.404	1.28
X	0.397	1.26
25/64	0.3906	1.22
W	0.386	1.20
V	0.377	1.14
3/8	0.375	1.12
U	0.368	1.06
23/64	0.3593	1.03
T	0.358	1.02
S	0.348	0.975
11/32	0.3437	0.939
R	0.339	0.924
Q	0.332	0.882
21/64	0.3281	0.861
P	0.323	0.831
O	0.316	0.813
5/16	0.3125	0.780

- All Sizes Available in 3 and 12 Foot Lengths
- A \$25.00 packaging charge will be added to 12 foot drill rod orders less than 250 lbs.

AISI SAE **W-1** Water Hardening Drill Rod

AISI SAE **W-1** Water Hardening Drill Rod

Size	Decimal Equiv. Inches	Weight Per 3' Piece
N	0.302	0.726
19/64	0.2968	0.702
M	0.295	0.699
L	0.290	0.675
9/32	0.2812	0.639
K	0.281	0.636
J	0.277	0.615
I	0.272	0.594
H	0.266	0.564
17/64	0.2656	0.561
G	0.261	0.543
F	0.257	0.522
1/4	0.250	0.501
D	0.246	0.483
C	0.242	0.462
B	0.238	0.450
15/64	0.2343	0.441
A	0.234	0.441
1	0.227	0.414
2	0.219	0.387
7/32	0.2187	0.387
3	0.212	0.363
4	0.207	0.345
5	0.204	0.327
13/64	0.2031	0.327
6	0.201	0.321
7	0.199	0.318
8	0.197	0.312
9	0.194	0.297
10	0.191	0.288
11	0.188	0.282
3/16	0.1875	0.282
12	0.185	0.276
13	0.182	0.267
14	0.180	0.261
15	0.178	0.255
16	0.175	0.246
17	0.172	0.237
11/64	0.1718	0.234
18	0.168	0.228
19	0.164	0.216

Size	Decimal Equiv. Inches	Weight Per 3' Piece
20	0.161	.207
21	0.157	0.198
5/32	0.1562	0.198
22	0.155	0.195
23	0.153	0.189
24	0.151	0.183
25	0.148	0.177
26	0.146	0.171
27	0.143	0.165
9/64	0.1406	0.156
28	0.139	0.156
29	0.134	0.144
30	0.127	0.129
1/8	0.125	0.126
31	0.120	0.117
32	0.115	0.108
33	0.112	0.102
34	0.110	0.096
7/64	0.1093	0.093
35	0.108	0.093
36	0.106	0.090
37	0.103	0.087
38	0.101	0.084
39	0.099	0.078
40	0.097	0.075
41	0.095	0.072
3/32	0.0937	0.069
42	0.092	0.069
43	0.088	0.063
44	0.085	0.057
45	0.081	0.054
46	0.079	0.051
5/64	0.0781	0.051
47	0.077	0.048
48	0.075	0.045
49	0.072	0.042
50	0.069	0.039
51	0.066	0.036
52	0.063	0.033
1/16	0.0625	0.030

- All Sizes Available in 3 and 12 Foot Lengths
- A \$25.00 packaging charge will be added to 12 foot drill rod orders less than 250 lbs.

AISI
SAE

A-2 Air Hardening
Drill Rod

Size	Decimal Equiv. Inches	Weight Per 3' Piece
2	2.000	32.04
1-3/4	1.750	24.51
1-1/2	1.500	18.00
1-3/8	1.375	15.14
1-1/4	1.250	12.50
1-1/8	1.125	10.12
1-1/16	1.0625	9.03
1	1.000	8.01
15/16	0.9375	6.99
7/8	0.875	6.13
13/16	0.8125	5.29
3/4	0.750	4.50
23/32	0.7187	4.12
11/16	0.6875	3.75
21/32	0.6562	3.43
5/8	0.625	3.12
19/32	0.5937	2.81
9/16	0.5625	2.53
17/32	0.5312	2.25
33/64	0.5156	2.12
1/2	0.500	2.00
31/64	0.4843	1.87
15/32	0.4687	1.74
29/64	0.4531	1.62
7/16	0.4375	1.53
27/64	0.4218	1.41
13/32	0.4062	1.31
25/64	0.3906	1.22
3/8	0.375	1.12
23/64	0.3593	1.03
11/32	0.3437	0.939
21/64	0.3281	0.861
5/16	0.3125	0.780
19/64	0.2968	0.702
9/32	0.2812	0.639
17/64	0.2656	0.561
1/4	0.250	0.501
15/64	0.2343	0.441
7/32	0.2187	0.387
13/64	0.2031	0.327
3/16	0.1875	0.282
11/64	0.1718	0.234
5/32	0.1562	0.198
9/64	0.1406	0.156
1/8	0.125	0.126
7/64	0.1093	0.093
3/32	0.0937	0.069
5/64	0.0781	0.051
1/16	0.0625	0.030

AISI
SAE

A-2 Air Hardening
Drill Rod

Size	Decimal Equiv. Inches	Weight Per 3' Piece
2mm	0.0787	0.050
3mm	0.1181	0.112
4mm	0.1575	0.198
5mm	0.1969	0.310
6mm	0.2362	0.446
7mm	0.2756	0.607
8mm	0.3150	0.794
9mm	0.3543	1.004
10mm	0.3937	1.239
11mm	0.4331	1.500
12mm	0.4724	1.785
13mm	0.5118	2.095
14mm	0.5512	2.430
15mm	0.5906	2.790
16mm	0.6299	3.173
17mm	0.6693	3.583
18mm	0.7087	4.017
19mm	0.7480	4.475
20mm	0.7874	4.959
21mm	0.8268	5.467
22mm	0.8661	6.000
23mm	0.9055	6.558
24mm	0.9449	7.141
25mm	0.9843	7.747

AISI
SAE

D-2 Air Hardening
Drill Rod

Size	Decimal Equiv. Inches	Weight Per 3' Piece
1-1/2	1.500	18.00
1-1/4	1.250	12.50
1	1.000	8.01
7/8	0.875	6.13
3/4	0.750	4.50
5/8	0.625	3.12
1/2	0.500	2.00
7/16	0.4375	1.53
3/8	0.375	1.12
5/16	0.3125	0.78
1/4	0.250	0.501
3/16	0.1875	0.282
1/8	0.125	0.126

- Sizes Available in 3 and 12 Foot Lengths
- A \$25.00 packaging charge will be added to 12 foot drill rod orders less than 250 lbs.

AISI
SAE

S-7

Air Hardening
Drill Rod

Size	Decimal Equiv. Inches	Weight Per 3' Piece
1-1/2	1.500	18.00
1-1/4	1.250	12.50
1	1.000	8.01
7/8	0.875	6.13
3/4	0.750	4.50
5/8	0.625	3.12
1/2	0.500	2.00
7/16	0.4375	1.53
3/8	0.375	1.12
5/16	0.312	0.780
1/4	0.250	0.500
7/32	0.2187	0.387
3/16	0.1875	0.282
5/32	0.1562	0.198
1/8	0.125	0.126
3/32	0.0937	0.069
1/16	0.0625	0.030

AISI
SAE

O-1

Oil Hardening
Drill Rod

Size	Decimal Equiv. Inches	Weight Per 3' Piece
2mm	0.0787	0.050
3mm	0.1181	0.112
4mm	0.1575	0.198
5mm	0.1969	0.310
6mm	0.2362	0.446
7mm	0.2756	0.607
8mm	0.3150	0.794
9mm	0.3543	1.004
10mm	0.3937	1.239
11mm	0.4331	1.500
12mm	0.4724	1.785
13mm	0.5118	2.095
14mm	0.5512	2.430
15mm	0.5906	2.790
16mm	0.6299	3.173
17mm	0.6693	3.583
18mm	0.7087	4.017
19mm	0.7480	4.475
20mm	0.7874	4.959
21mm	0.8268	5.647
22mm	0.8661	6.000
23mm	0.9055	6.558
24mm	0.9449	7.141
25mm	0.9843	7.747
30mm	1.1811	11.30

AISI
SAE

M-2

Air Hardening
Drill Rod

Size	Decimal Equiv. Inches	Weight Per 3' Piece
1-1/2	1.500	18.00
1-1/4	1.250	12.50
1	1.000	8.01
3/4	0.750	4.50
5/8	0.625	3.12
1/2	0.500	2.00
7/16	0.4375	1.53
3/8	0.375	1.12
5/16	0.3125	0.780
1/4	0.250	.500
3/16	0.1875	0.282
5/32	0.1562	0.198
1/8	0.125	0.126

Heat Treatment Information

Product:

AISI O-1 Ground And Polished Drill Rod

Typical Analysis:
C .95, Mn 1.20, Si .35,
Cr .50 W .50

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.

Tempering:

Tempering Temp.°F	Hardness Rockwell C
None	65.0
350	63.0
400	60.5
450	59.0
500	58.0
600	56.0
800	56.0

AISI W-1 Ground And Polished Drill Rod

Typical Analysis:
C 1.00, Mn .40, Si .20

Heat slowly to 1450°F. hold 20 minutes per inch of greatest cross-section after tool reaches furnace temperature (minimum holding time – 20 minutes). Quench in water or 10% brine solution to 150°/200°F. Temper immediately 2 hours per inch of greatest cross-section at temperatures shown to achieve the desired hardness.

Tempering Temp.°F	Hardness Rockwell C
None	67.0
300	64.0
400	61.0
500	59.0
600	55.0
800	46.0

AISI A-2 Ground And Polished Drill Rod

Typical Analysis:
C 1.00, Mn .70, Cr 5.00,
Mo 1.10, V .25

Preheat: 1200°F until thoroughly soaked. Harden at 1775°F. Hold 20 minutes per inch of greatest cross-section after tool reaches furnace temperature (minimum holding time – 30 minutes). Air quench to 150°F. Temper immediately 2 hours per inch of greatest cross-section at temperature shown to achieve desired hardness.

Tempering Temp.°F	Hardness Rockwell C
None	64.5
300	63.0
350	62.0
400	61.0
450	60.0
500	59.0
600	58.0
800	57.0

AISI S-7 Ground And Polished Drill Rod

Typical Analysis:
C .50, Mn .50, Si .30,
Cr 3.25, Mo 1.45

Preheat: 1250°F until thoroughly soaked. Harden at 1725°F. Hold 45 minutes per inch of greatest cross-section after tool reaches furnace temperature (minimum holding time – 45 minutes). Air quench to 150°F. Temper immediately 2 hours per inch of greatest cross-section at temperature shown to achieve the desired hardness.

Tempering Temp.°F	Hardness Rockwell C
400	58.0
500	56.0
600	55.0
700	54.0
800	53.0
900	52.0
1000	51.0
1100	47.0
1200	38.0
1300	31.0

AISI D-2 Ground And Polished Drill Rod

Typical Analysis:
C 1.50, Mn .40, Si .30,
Cr 12.00, Mo .80, V .90

Preheat: 1250°F until thoroughly soaked. Harden at 1850°F. Hold 45 minutes per inch of greatest cross-section after tool reaches furnace temperature (minimum holding time – 45 minutes). Air quench to 150°F. Temper immediately 2 hours per inch of greatest cross-section at temperatures shown to achieve the desired hardness.

Tempering Temp.°F	Hardness Rockwell C
400	62.0
500	60.5
600	57.5
700	57.0
800	56.5
900	56.5
1000	57.0
1100	51.5
1200	43.5

AISI M-2 Ground And Polished Drill Rod

Typical Analysis:
C 0.83, Cr 4.15, Mo
5.00, V 1.90, W 6.35

Hardening: Preheat slowly to 1550°F. Soak thoroughly, heat to 1850°F, soak thoroughly. For maximum toughness and minimum distortion heat to 2150°-2200°F. For maximum abrasion resistance heat to 2250°-2275°F. Soak time in the furnace varies from a few minutes to 15 minutes, depending on tool size, heat capacity of the furnace, and the size of the charge. For full hardness quench in oil to 150°-200°F, otherwise, air quench to 125°-150°F. Double tempering is mandatory, three tempers are sometimes preferred. Soak for 2 hours per inch of thickness. Air cool to room temperature between tempers. The best tempering range for hardness, strength, and toughness is 1000°-1050°F.

Tempering Temp.°F	Hardness Rockwell C
None	64.0
400	63.0
500	62.5
600	62.5
700	62.5
800	63.5
900	64.0
1000	65.5
1050	63.5
1100	61.5
1150	60.0
1200	53.0

W-1 Tool Steel Drill Rod

W-1 Tool Steel is a general purpose water-hardening tool steel with a 1.00% Carbon content. It offers an excellent combination of physical properties with an outer case that is abrasion resistant in the 60 Rockwell "C" range with a soft, ductile inner core. W -1 is the easiest of all steels to machine with a machinability rating of 100 as a basis for comparison with other tool steels.

0-1 Tool Steel Drill Rod

0-1 Tool steel is a general purpose oil-hardening tool and die steel. Normal care in treatment gives good results in hardening and produces small dimensional changes. It has good abrasion resistance and sufficient toughness for normal tool and die applications. When compared to a 1 percent carbon steel, 0-1 has a machinability rating of 90.

S-7 Tool Steel Drill Rod

S-7 Tool Steel is a general purpose cold work tool steel especially formulated for tooling applications that require extreme toughness and impact strength. S-7 Tool Steel has exceptional impact properties with an unnotched Charpy of 180 ft-lbs with a 4002F temper. When compared to a 1 percent carbon steel, S-7 has a machinability rating of 95.

A-2 Tool Steel Drill Rod

A-2 Tool Steel is a general purpose, 5% chrome air hardening tool steel. A-2 is popular because it has better wear resistance compared to S-7, A-6 and A-8 Tool Steel. A-

2 is tougher and more ductile than D-2 Tool

Steel. A-2 is also a very safe grade of tool steel to harden, and can be heat treated in most tool room furnaces without problem. When compared to a 1 percent carbon steel, A-2 has a machinability rating of 65.

D-2 Tool Steel Drill Rod

D-2 is for tooling applications where excellent abrasion resistance is the primary concern, D-2 Tool Steel is the most logical choice. D-2 Tool Steel also has very deep hardening characteristics, and high compressive strength. D-2 is also very popular because of its air hardening characteristics and excellent ability to resist distortion and size changes during hardening. When compared to a 1 percent carbon steel, D-2 has a machinability rating of 50.

M-2 Tool Steel Drill Rod

M-2 is a molybdenum based high-speed steel. It was specifically developed to cost effectively combine very good abrasion resistance, toughness, and red hardness into one grade. With a working hardness in the range of HRC 58/62, M-2 is the material of choice for all kinds of tools, dies, punches, cutting tools, cut-off knives, wood working tools, broaches, hobs, and drill bits. When properly annealed, M-2 has a machinability rating of 65 percent when compared to a 1 % Carbon Steel rated at 100.