

4140/42/45/50 (Continued)
4140/42/50 AND 41L40/42/50
HOT ROLLED HEAT TREATED ROUNDS
Quenched and Tempered – Machine Straightened
For mechanical properties, see bottom of opposite page
 Stock Lengths 20' Approx.

Size In Inches	Est. Wts., Lbs.		Size In Inches	Est. Wts., Lbs		Size In Inches	Est. Wts., Lbs.	
	Per Foot	12-Ft Bar		Per Foot	12-Ft Bar		Per Foot	12-Ft Bar
1/4	.1671	3.341	2 ^{3/8}	15.08	301.5	6 ^{1/4}	104.4	2088
5/16	.2610	5.220	1/2	16.71	334.1	1/2	112.9	2259
3/8	.3759	7.517	5/8	18.42	368.4	3/4	121.8	2436
7/16	.5116	10.23	3/4	20.21	404.3	7	131.0	2619
1/2	.6682	13.36	7/8	22.09	441.9	1/4	140.5	2810
9/16	.8457	16.91	3	24.06	481.1	1/2	150.4	3007
5/8	1.044	20.88	1/8	26.10	522.0	3/4	160.5	3211
11/16	1.263	25.27	1/4	28.23	564.6	8	171.1	3421
3/4	1.504	30.07	3/8	30.45	608.9	1/4	181.9	3638
7/8	2.046	40.93	1/2	32.74	654.8	1/2	193.1	3862
1	2.673	53.46	5/8	35.12	702.5	3/4	204.6	4093
1/16	3.017	60.35	3/4	37.59	751.7	9	216.5	4330
1/8	3.383	67.66	7/8	40.14	802.7	1/4	228.7	4574
3/16	3.769	75.38	4	42.77	855.3	1/2	241.2	4824
1/4	4.176	83.53	1/8	45.48	909.6	1/4	254.1	5082
5/16	4.064	92.09	1/4	48.28	965.6	10	267.3	5346
3/8	5.053	101.1	1/2	54.13	1083	1/4	280.8	5616
7/16	5.523	110.5	5/8	57.18	1143	1/2	294.7	5894
1/2	6.014	120.3	3/4	60.31	1206	11	323.4	6468
5/8	7.058	141.2	7/8	63.52	1270	1/2	353.5	7070
3/4	8.186	163.7	5	66.82	1336	12	384.9	7698
7/8	9.397	187.9	1/4	73.67	1473	1/2	417.6	8353
2	10.69	213.8	1/2	80.86	1617			
1/8	12.07	214.4	3/4	88.37	1767			
1/4	13.53	270.6	6	96.22	1924			

Size	OD	HOT ROLLED	Hot Rolled	Press Forged	Press Forged	Press Forged
		Wt./Ft.	WT 20 FT Bar	Rough Turned 1/4" Over	Wt./Ft.	WT 20 FT Bar
13	13.000	451.72	9034	13.250	469.26	9385
1/4	13.250	469.26	9385	13.500	487.14	9743
1/2	13.500	487.14	9743	13.750	505.35	10107
14	14.000	523.89	10478	14.250	542.77	10855
3/8	14.375	552.33	11047	14.625	571.71	11434
1/2	14.500	561.98	11240	14.750	581.52	11630
3/4	14.750	581.52	11630	15.000	601.40	12028
7/8	14.875	591.42	11828	15.125	611.47	12229
15	15.000	601.40	12028	15.250	621.62	12432
1/2	15.500	642.16	12843	15.750	663.05	13261
7/8	15.875	673.61	13472	16.125	695.00	13900
16	16.000	684.26	13685	16.250	705.81	14116
1/4	16.250	705.81	14116	16.500	727.7	14554
1/2	16.500	727.70	14554	16.750	749.92	14998
17	17.000	772.47	15449	17.250	795.35	15907
1/4	17.250	795.35	15907	17.500	818.58	16372
18	18.000	866.02	17320	18.250	890.24	17805
1/4	18.250	890.24	17805	18.500	914.80	18296
19	19.000	964.92	19298	19.250	990.48	19810
1/2	19.500	1016.37	20327	19.750	1042.60	20852
3/4	19.750	1042.60	20852	20.000	1069.16	21383

4140/42/45/50 (Continued)
4140 ANNELAED AND
COLD DRAWN HEXAGONS
Maximum Brinell 235
Stock Lengths 12' Approx.

Size In Inches	Est. Wt., Lbs.		Size In Inches	Est. Wt., Lbs.		Thickness In Inches	Est. Wt., Lbs.	
	Per Foot	12-Ft. Bar		Per Foot	12-Ft. Bar		Per Foot	12-Ft. Bar
7/16	.5641	6.769	1 ^{3/8}	5.572	66.87	1/4	.0709	10.21
1/2	.7368	8.842	^{7/16}	6.090	73.08	3/8	.1064	15.31
9/16	.9325	11.19	1/2	6.631	79.56	1/2	.1418	20.42
5/8	1.151	13.82	5/8	7.783	93.39	5/8	.1773	25.52
11/16	1.393	16.72	11/16	8.393	100.7	3/4	.2127	30.63
3/4	1.658	19.89	3/4	9.026	108.3	7/8	.2481	35.73
13/16	1.946	23.35	7/8	10.36	124.3	1	.2836	40.84
7/8	2.257	27.08	2	11.79	141.5	1/8	.3191	45.94
15/16	2.590	31.08	1/8	13.31	159.7	1/4	.3545	51.05
1	2.947	35.37	1/4	14.92	179.0	3/8	.3900	56.16
1/16	3.327	39.93	1/2	18.42	221.0	1/2	.4254	61.26
1/8	3.730	44.76	3/4	22.29	267.5	3/4	.4963	71.47
1/4	4.605	55.26	3	26.53	318.3	2	.5672	81.68
5/16	5.077	60.93				1/4	.6381	91.89
						1/2	.7090	102.1
						3/4	.7799	112.3
						3	.8508	122.5
						1/4	.9217	132.7
						1/2	.9926	142.9
						3/4	1.064	153.1

4	1.134	163.4
1/4	1.204	173.6
1/2	1.276	183.8
3/4	1.347	194.0
5	1.418	204.2
1/2	1.560	224.6
6	1.702	245.0
1/2	1.843	265.5
7	1.985	285.9
1/2	2.127	306.3
8	2.269	326.7
1/2	2.411	347.1
9	2.552	367.6
10	2.836	408.4
11	3.119	449.2
12	3.403	490.1
13	3.687	530.9
14	3.970	571.7
16	4.538	653.4

4140/42 Squares

Hot Rolled Heat Treated			Annlaed & Cold Drawn		
Size In Inches	Per Foot	12-Ft. Bar	Size In Inches	Per Foot	12-Ft. Bar
1	3.403	68.06	1/4	.2127	2.552
1/8	4.307	86.14	3/8	.4786	5.743
1/4	5.318	106.4	7/16	.6514	7.817
1/2	7.657	153.1	1/2	.8508	10.21
3/4	10.42	208.4	9/16	1.077	12.92
2	13.61	272.3	5/8	1.329	15.95
1/4	17.23	344.6	3/4	1.914	22.97
3/8	19.20	383.9	7/8	2.606	31.27
1/2	21.27	425.4	1	3.403	40.84
3/4	25.74	514.7	1/8	4.307	51.69
3	30.63	612.6	1/4	5.318	63.81
1/2	41.69	833.8	3/8	6.434	77.21
4	54.45	1089	1/2	7.657	91.89
1/2	68.91	1378	3/4	10.42	125.1
			2	13.61	163.4
			1/4	17.23	206.7
			1/2	21.27	255.2
			3	30.63	367.5

**MECHANICAL PROPERTIES OF 4142 AND 41L42
HEAT TREATED BARS – ASTM A 434 GRADE B/C***

	Tensile Strength (psi) Minimum	Yield Strength (psi) Minimum	Elongation In 2" Minimum	Reduction of Area Minimum	Surface Brinell Hardness
1 1/2" and under	130,000	110,000	16%	50%	269 - 321
Over 1 1/2" to 2 1/2"	125,000	105,000	16%	50%	269 - 321
Over 2 1/2" to 4"	115,000	95,000	16%	45%	269 - 321
Over 4" to 7"	85,000	110,000	16%	45%	269 - 321
Over 7" to 9 1/2"	80,000	105,000	15%	40%	269 - 321

***Also Stocked in ASTM A 193 Grade B7 and ASTM A434 Grade BD.**

4140/42/45/50 (Continued)
4140/42/45/50 AND 41L40/42/50
HOT ROLLED ANNEALED ROUNDS*

Machine Straightened - Maximum Brinell 212

Stock Lengths 20' Approx.

Est. Wt., Lbs.			Est. Wt., Lbs.			Est. Wt., Lbs.			Est. Wt., Lbs.		
Size In Inches	Per Foot	12-Ft Bar	Size In Inches	Per Foot	12-Ft Bar	Size In Inches	Per Foot	12-Ft. Bar	Size In Inches	Per Foot	12-Ft. Bar
3/8	3759	7.517	3	24.06	481.1	8	171.1	3421	16	684.26	13685
1/2	6682	13.36	1/8	26.10	522.0	1/4	181.9	3638	1/4	705.81	14116
9/16	.8457	16.91	1/4	28.23	564.6	1/2	181.9	3862	1/2	727.70	14554
5/8	1.044	20.88	3/8	30.45	608.9	3/4	204.6	4093	17	772.47	15449
11/16	1.263	25.27	1/2	32.74	654.8	9	216.5	4330	1/4	795.35	15907
3/4	1.504	30.07	5/8	35.12	702.5	1/4	228.7	4574	18	866.02	17320
7/8	2.046	40.93	3/4	37.59	751.7	1/2	241.2	4824	1/4	890.24	17805
1	2.673	53.46	7/8	40.14	802.7	3/4	254.1	5082	19	964.92	19298
1/8	3.383	67.66	4	42.77	855.3	10	267.3	5346	1/2	1016.37	20327
1/4	4.176	83.53	1/8	45.48	909.6	1/4	280.8	5616	3/4	1042.60	20852
5/16	4.604	92.09	1/4	48.28	965.6	1/2	294.7	5894	20	1069.16	21383
3/8	5.053	101.1	1/2	54.13	1083	11	323.4	6468	1/2	1123.29	22466
7/16	5.523	110.5	5/8	57.18	1143	1/2	353.5	7070	3/4	1150.85	23017
1/2	6.014	120.3	3/4	60.31	1206	12	384.9	7698	21	1178.75	23575
5/8	7.058	141.2	5	66.82	1336	1/4	401.1	8022	1/4	1206.98	24140
3/4	8.186	163.7	1/8	70.21	1404	1/2	417.6	8353	1/2	1235.55	24711
7/8	9.397	187.9	1/4	73.67	1473	13	451.72	9034	22	1293.68	25874
2	10.69	213.8	3/8	77.22	1544	1/4	469.26	9385	3/4	1383.39	27668
1/8	12.07	241.4	1/2	80.86	1617	1/2	487.14	9743	23	1413.96	28279
1/4	13.53	270.6	3/4	88.37	1767	14	523.89	10478	1/4	1444.87	28897
3/8	15.08	301.5	6	96.22	1924	3/8	552.33	11047	1/2	1476.11	29522
1/2	16.71	334.1	1/4	104.4	2088	1/2	561.98	11240	24	1539.59	30792
5/8	18.42	368.4	1/2	112.9	2259	3/4	581.52	11630	26	1806.88	36138
3/4	20.21	404.3	3/4	121.8	2436	7/8	591.42	11828	1/2	1877.04	37541
7/8	22.09	441.9	7	131.0	2619	15	601.40	12028	28	2095.55	41911
			1/4	140.5	2810	1/2	642.16	12843	30	2405.61	48112
			1/2	150.4	3007	7/8	673.61	13472	32	2737.05	54741
			3/4	160.5	3211						

4140/42 and 41L40/42/50
ANNEALED and COLD DRAWN ROUNDS
Maximum Brinell 235 – Stock Lengths 12 Approx.

Size In Inches	Estimated Weight, Lbs.		Size In Inches	Estimated Weight, Lbs.	
	Per Foot	12-Ft. Bar		Per Foot	12-Ft. Bar
3/16	.0940	1.130	1 ^{1/16}	7.612	91.34
1/4	.1671	2.005	3/4	8.186	98.23
5/16	.2610	3.132	13/16	8.781	105.4
3/8	.3759	4.510	7/8	9.397	112.8
7/16	.5116	6.139	15/16	10.03	120.4
1/2	.6682	8.019	2	10.69	128.3
9/16	.8457	10.15	1/8	12.07	144.8
5/8	1.044	12.53	3/16	12.79	153.5
11/16	1.263	15.16	1/4	13.53	162.4
1/4	1.504	18.04	3/8	15.08	180.9
13/16	1.765	21.17	7/16	15.88	190.6
7/8	2.046	24.56	1/2	16.71	200.5
15/16	2.349	28.19	5/8	18.42	221.0
1	2.673	32.07	3/4	20.21	242.6
1/10	3.017	36.21	7/8	22.09	265.1
1/8	3.383	40.59	15/16	23.06	276.8
3/10	3.769	45.23	3	24.06	288.7
1/4	4.176	50.12	1/8	26.10	313.2
5/16	4.604	55.25	1/4	28.23	338.8
3/8	5.053	60.64	1/2	32.74	392.9
7/16	5.523	66.28	1/4	37.59	451.0
1/2	6.014	72.17	4	42.77	513.2
9/16	6.526	78.31	1/4	48.28	579.3
5/8	7.058	84.70	1/2	54.18	649.5
			5	66.82	801.9

4140/42/45/50 (Continued)
4140/42/50 AND 41L40/42/50
HOT ROLLED HEAT TREATED ROUNDS
Quenched and Tempered – Machine Straightened
For mechanical properties, see bottom of opposite page
Stock Lengths 20' Approx.

Size	OD	HOT ROLLED	Hot Rolled	Press Forged	Press Forged	Press Forged
		Wt./Ft.	WT 20 FT Bar	Rough Turned 1/4" Over	Wt./Ft.	WT 20 FT Bar
20	20.000	1069.16	21383	20.250	1096.06	21921
1/2	20.500	1123.29	22466	20.750	1150.85	23017
3/4	20.750	1150.85	23017	21.000	1178.75	23575
21	21.000	1178.75	23575	21.250	1206.98	24140
1/4	21.250	1206.98	24140	21.500	1235.55	24711
1/2	21.500	1235.55	24711	21.750	1264.45	25289
22	22.000	1293.68	25874	22.250	1323.25	26465
3/4	22.750	1383.39	27668	23.000	1413.96	28279
23	23.000	1413.96	28279	23.250	1444.87	28897
1/4	23.250	1444.87	28897	23.500	1476.11	29522
1/2	23.500	1476.11	29522	23.750	1507.68	30154
24	24.000	1539.59	30792	24.250	1571.83	31437
26	26.000	1806.88	36138	26.250	1841.80	36836
1/2	26.500	1877.04	37541	26.750	1912.63	38253
28	28.000	2095.55	41911	28.250	2133.14	42663
30	30.000	2405.61	48112	30.250	2445.87	48917
32	32.000	2737.05	54741	32.250	2779.98	55600

4140/42 AND 41L40/42
HEAT TREATED COLD DRAWN OR G & P ROUNDS

For mechanical properties, see bottom of opposite page.

Stock Lengths 12' and 20'

Size In Inches	Estimated Weight, Lbs.		Size In Inches	Estimated Weight, Lbs.	
	Per Foot	12-Ft. Bar		Per Foot	12-Ft. Bar
1/4	.1671	2.005	1 11/16	7.612	91.34
5/16	.2610	3.132	3/4	8.186	98.23
1/8	.3759	4.510	13/16	8.781	105.4
7/16	.5116	6.139	7/8	9.397	112.8
1/2	.6682	8.019	15/16	10.03	120.4
2/16	.8457	10.15	2	10.69	128.3
5/8	1.044	12.53	1/8	12.07	144.8
11/16	1.263	15.16	1/4	13.53	162.4
1/4	1.504	18.04	5/16	14.29	171.5
11/16	1.765	21.17	3/8	15.08	180.9
7/11	2.046	24.56	7/16	15.88	190.6
1/16	2.349	28.19	1/2	16.71	200.5
1	2.673	32.07	5/8	18.42	221.0
1/16	3.017	36.21	3/4	20.21	242.6
1/11	3.383	40.59	15/16	23.06	276.8
1/16	3.769	45.23	3	24.06	288.7
1/4	4.176	50.12	1/8	26.10	313.2
5/16	4.604	55.25	3/16	27.16	325.9
1/8	5.053	60.64	1/4	28.23	338.8
2/16	5.523	66.28	3/8	30.45	365.4
1/4	6.014	72.17	1/2	32.74	392.9
11/16	6.526	78.31	3/4	37.59	451.0
	7.058	84.70	15/16	41.44	497.3
			4	42.77	513.2