

## **Reference Book**



**Steel Service Centre**

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## **PROCESSING SERVICES**

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Angles	Quenched & Tempered
Flat Bar	Plate
Beams	Grating
Channels	Expanded Metal
Carbon Plate	Steel Pipe
Rebar	Concrete Wire Mesh
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**ROUNDS  
HOT ROLLED  
SPEC A-36/44W**

Size In.	Wt. lbs./ft.	Size In.	Wt. lbs./ft.
1/8	.042	2	10.68
5/32	.065	2-1/16	11.36
3/16	.094	2-1/8	12.06
7/32	.128	2-3/16	12.78
1/4	.167	2-1/4	13.52
9/32	.211	2-5/16	14.28
5/16	.261	2-3/8	15.06
3/8	.316	2-7/8	15.87
3/8	.376	2-1/2	16.69
7/16	.511	2-9/16	17.53
1/2	.668	2-5/8	18.40
9/16	.845	2-11/16	19.29
5/8	1.04	2-3/4	20.20
11/16	1.26	2-13/16	21.12
3/4	1.50	2-7/8	22.07
13/16	1.76	2-15/16	23.04
7/8	2.04		
15/16	2.35		
1	2.67	3	24.03
1-1/16	3.01	3-1/16	25.04
1-1/8	3.38	3-1/8	26.08
1-3/16	3.77	3-3/16	27.13
1-1/4	4.17	3-1/4	28.21
1-5/16	4.60	3-5/16	29.30
1-3/8	5.05	3-3/8	30.42
1-7/16	5.52	3-7/16	31.55
1-1/2	6.01	3-1/2	33.02
1-9/16	6.52	3-9/16	33.89
1-5/8	7.05	3-5/8	35.09
1-11/16	7.60	3-11/16	36.21
1-3/4	8.18	3-3/4	37.55
1-13/16	8.77	3-13/16	38.81
1-7/8	9.39	3-7/8	40.10
1-15/16	10.02	3-15/16	41.40



**SQUARES**  
**HOT ROLLED**  
SPEC A-36/44W

Size In.	Wt. lbs./ft.	Size In.	Wt. lbs./ft.
1/8	.530	2	13.60
3/16	.120	2-1/8	15.35
1/4	.213	2-1/4	17.21
5/16	.332	2-3/8	19.18
3/8	.478	2-1/2	21.25
7/16	.651	2-5/8	23.43
1/2	.850	2-3/4	25.71
9/16	1.08		
5/8	1.33	3	30.60
11/16	1.61	3-1/4	35.92
3/4	1.91	3-1/2	41.65
16/16	2.25	3-3/4	47.81
7/8	2.60		
15/16	2.99	4	54.40
1	3.40		
1-1/16	3.84		
1-1/8	4.30		
1-3/16	4.80		
1-1/4	5.31		
1-5/16	5.86		
1-3/8	6.43		
1-7/16	7.03		
1-1/2	7.65		
1-5/8	8.98		
1-3/4	10.41		
1-7/8	11.95		

**FLATS**  
**HOT ROLLED**  
 SPEC A-36/44W

Size In.	Wt. lbs./ft.	Size In.	Wt. lbs./ft.	Size In.	Wt. lbs./ft.
1/8 x 1/2	.213	1/4 x 1/2	.425	3/8 x 3/4	.956
3/4	.319	3/4	.638	1	1.28
1	.425	1	.850	1-1/4	1.59
1-1/4	.531	1-1/4	1.06	1-1/2	1.91
1-1/2	.638	1-1/2	1.28	2	2.55
1-3/4	.744	1-3/4	1.49	2-1/2	3.19
2	.850	2	1.70	3	3.83
2-1/2	1.063	2-1/2	2.13	3-1/2	4.46
3	1.275	3	2.55	4	5.10
3-1/2	1.488	3-1/2	2.98	4-1/2	5.74
4	1.700	4	3.40	5	6.38
4-1/2	1.913	4-1/2	3.83	6	7.650
5	2.125	5	4.25	7	8.93
6	2.550	5-1/2	4.68	8	10.20
8	3.400	6	5.10	10	12.75
		7	5.95	12	15.30
		8	6.80		
		10	8.51		

Size In.	Wt. lbs./ft.	Size In.	Wt. lbs./ft.	Size In.	Wt. lbs./ft.
3/16 x 1/2	.319	1/8 x 1/2	.213	3/8 x 3/4	.956
3/4	.478	3/4	.319	1	1.28
1	.638	1	.425	1-1/4	1.59
	.797	1-1/4	.531	1-1/2	1.91
1-1/4	.956	1-1/2	.638	2	2.55
1-1/2	1.20	1-3/4	.744	2-1/2	3.19
1-3/4	1.594	2	.850	3	3.83
2	1.28	2-1/2	1.063	3-1/2	4.46
2-1/2	1.594	3	1.275	4	5.10
3	1.913	3-1/2	1.488	4-1/2	5.74
3-1/2	2.230	4	1.700	5	6.38
4	2.550	4-1/2	1.913	6	7.650
		5	2.125	7	8.93
		6	2.550	8	10.20
		8	3.400	10	12.75
				12	15.30

**FLATS  
HOT ROLLED  
SPEC A-36/44W**

Size In.	Wt. lbs./ft.	Size In.	Wt. lbs./ft.	Size In.	Wt. lbs./ft.
5/8 x 1	2.13	7/8 x 1	2.975	1-1/4 x 1-1/2	6.375
1-1/2	3.19	1-1/2	4.463	2	8.550
2	4.25	2	5.950	3	12.750
2-1/2	5.31	2-1/2	7.440	4	17.000
3	6.38	3	8.925	6	25.500
3-1/2	7.44	3-1/2	10.413	8	34.000
4	8.50	4	11.900	10	42.500
4-1/2	9.56	4-1/2	13.390	12	51.000
5	10.63	5	14.880		
6	12.75	6	17.850		
7	14.88	8	23.800		
8	17.00	10	29.750		
10	21.25	12	35.700		
12	25.50				

Size In.	Wt. lbs./ft.	Size In.	Wt. lbs./ft.	Size In.	Wt. lbs./ft.
3/4 x 1	2.550	1 x 1-1/2	5.100	1-1/4 x 2	10.200
1-1/2	3.825	2	6.800	3	15.300
2	5.100	2-1/2	8.500	4	20.400
2-1/2	6.375	3	10.200	6	30.600
3	7.650	3-1/2	11.900	8	40.800
3-1/2	8.925	4	13.600	10	51.000
4	10.200	5	17.000	12	61.200
4-1/2	11.475	6	20.400		
5	12.750	8	27.200		
6	15.300	10	34.000		
8	20.400	12	40.800		
10	25.500				
12	30.600				



**ANGLES-  
BAR SIZE**  
SPEC A-36/44W

Size In.	Thickness In.	Wt. lbs./ft.
1/2 x 1/2	1/8	.38
5/8 x 5/8	1/8	.48
3/4 x 3/4	1/8	.59
	3/16	.80
7/8 x 7/8	1/8	.70
1 x 1	1/8	.80
	3/16	1.16
	1/4	1.49
1 1/4 x 1/4	1/8	1.01
	3/16	1.48
	1/4	1.92
1 1/2 x 1 1/2	1/8	1.23
	3/16	1.80
	1/4	2.34
	5/16	2.86
	3/8	3.35
1 3/4 x 1 3/4	1/8	1.44
	3/16	2.12
	1/4	2.77
2 x 1 1/2	1/8	1.44
	3/16	2.12
	1/4	2.77
	5/16	3.92
2 x 2	1/8	1.65
	3/16	2.44
	1/4	3.19
	5/16	3.92
	3/8	4.70
2 1/4 x 2 1/4	3/16	2.44
	1/4	3.19
2 1/2 x 2	1/8	1.86
	3/16	2.75
	1/4	3.62
	5/16	4.50
	3/8	5.30
2 1/2 x 2 1/2	1/8	2.08
	3/16	3.07
	1/4	4.10
	5/16	5.00
	3/8	5.00
	3/8	5.90
	1/2	7.70

**ANGLES  
STRUCTURAL**  
SPEC A-36/44W

Size In.	Thickness In.	Wt. lbs./ft.
3 x 2	3/16	3.07
	1/4	4.1
	5/16	5.0
	3/8	5.9
	7/16	6.89
	1/2	7.7
3 x 2 1/2	1/4	4.5
	5/16	5.6
	3/8	6.6
	7/16	6.8
	1/2	8.5
3 x 3	1/8	2.5
	3/16	3.71
	1/4	4.9
	5/16	6.1
	3/8	7.2
	7/16	8.3
	1/2	9.4
3 1/2 x 2 1/2	3/16	3.7
	1/4	4.9
	5/16	6.1
	3/8	7.2
	7/16	8.3
	1/2	9.4
3 1/2 x 3	1/4	5.4
	5/16	6.6
	3/8	7.9
	7/16	8.3
	1/2	10.2
3 1/2 x 3 1/2	1/4	5.8
	5/16	7.2
	3/8	8.5
	7/16	9.8
	1/2	11.1
4 x 3	1/4	5.8
	5/16	7.2
	3/8	8.5
	7/16	9.8
	1/2	11.1
	5/8	13.6

**ANGLES  
STRUCTURAL**  
SPEC A-36/44W

Size In.	Thickness In.	Wt. lbs./ft.	Size In.	Thickness In.	Wt. lbs./ft.
4 x 3 1/2	1/4	6.2	6 x 6	5/16	12.4
	5/16	7.7		11/32	13.7
	3/8	9.1		3/8	14.9
	7/16	10.6		7/16	17.2
	1/2	11.9		1/2	19.6
5/8	14.7	9/16		22.1	
4 x 4	1/4	6.6		5/8	24.2
	5/16	8.2		3/4	28.7
	3/8	9.8		7/8	33.1
	7/16	11.3		1	37.4
	1/2	12.8	7 x 4	3/8	13.6
5/8	15.7	7/16		15.8	
3/4	18.5	1/2		17.9	
5 x 3	1/4	6.6		9/16	20.0
	5/16	8.2		5/8	22.1
	3/8	9.8	3/4	26.2	
	7/16	11.3	7/8	30.2	
	1/2	12.8	8 x 4	7/16	17.2
5 x 3 1/2	1/4	7.0		1/2	19.6
	5/16	8.7		5/8	24.6
	3/8	10.4	3/4	28.7	
	7/16	12.0	8 x 6	7/16	20.3
	1/2	13.6		1/2	23.0
5/8	16.8	9/16		25.7	
3/4	19.8	5/8		28.5	
5 x 5	5/16	10.3		3/4	33.8
	3/8	12.3	7/8	40.1	
	1/2	16.2	1	44.2	
	5/8	20.0	8 x 8	1/2	26.4
	3/4	23.6		9/16	29.3
7/8	27.2	5/8		32.7	
6 x 3 1/2	1/4	7.9		3/4	38.9
	5/16	9.8		7/8	45.0
	3/8	11.7	1	51.0	
	1/2	15.3	1-1/8	56.9	

**INQUIRE ABOUT OUR TRUCK  
DELIVERY FOR CONVENIENT  
TRANSPORT TO YOUR LOCATION**

**CHANNELS**  
**BAR SIZE**  
 SPEC A-36/44W

Imperial Designation In.	Metric Designation mm	Weight lbs./ft.
1 x 1/2 x 1/8	25.4 x 12.7 x 3.2	.80
1 1/4 x 1/2 x 1/8 x 9/16 x 3/16	31.8 x 12.7 x 3.2 x 14.3 x 4.8	1.00 1.26
1 1/2 x 1/2 x 1/8 x 9/16 x 1/16	38.1 x 12.7 x 3.2 x 14.3 x 4.8	1.13 1.44
2 x 1 x 3/16	50.8 x 25.4 x 4.8	2.32

**STANDARD CHANNELS**  
 SPEC A-36/44W

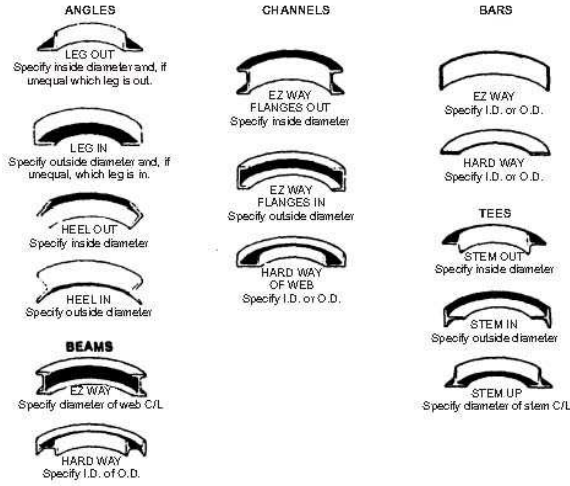
New Designation Old IMP.	CDN Metric	Depth In	Flange		Web Thickness In	Section Modulus In <sup>3</sup>
			Width In.	Thickness (mean) In.		
C3	x 4.1	3.00	1.41	.273	.170	1.11
	x 5.0					
	x 6.0					
C4	x 5.4	4.00	1.58	.296	.184	1.93
	x 6.25					
	x 7.25					
C5	x 6.7	5.00	1.75	.320	.190	3.00
	x 9.0					
	x 13					
C6	x 8.2	6.00	1.92	.343	.200	4.37
	x 10.5					
	x 13.0					
C7	x 9.8	7.00	2.09	.366	.210	6.09
	x 12.25					
	x 14.75					
C8	x 11.5	8.00	2.26	.390	.220	8.15
	x 13.75					
	x 18.75					
C9	x 13.4	9.00	2.43	.413	.233	10.6
	x 15.0					
	x 20.0					
C10	x 15.3	10.00	2.60	.436	.240	13.5
	x 20.0					
	x 25.0					
C12	x 20.7	12.00	2.94	.501	.282	21.5
	x 25.0					
	x 30.0					
C15	x 33.9	15.00	3.40	.650	.400	42.0
	x 40.0					
	x 50.0					

**MISCELLANEOUS CHANNELS**

**SPEC A-36/44W**

New Designation				Depth In	Flange		Web Thickness In	Section Modulus In <sup>3</sup>
Old IMP.	CDN Metric		Width In.		Thickness (mean) In.			
MC3	x 7.1	MC75	x 10.6	3.00	1.94	.351	.312	1.82
	x 9.0		x 13.4		2.12	.351	.497	2.10
MC6	x 12.0	MC150	x 17.9	6.00	2.50	.375	.310	6.23
	x 15.1		x 22.5		2.94	.475	.316	8.33
	x 15.3		x 22.8		3.50	.385	.340	8.47
	x 16.3		x 24.3		3.00	.475	.375	8.67
	x 18.0		x 26.8		3.50	.475	.379	9.90
MC7	x 17.6	MC180	x 26.2	7.00	3.00	.475	.375	10.7
	x 19.1		x 28.4		3.45	.500	.350	12.3
	x 22.7		x 33.8		3.60	.500	.503	13.6
MC8	x 8.5	MC200	x 12.6	8.00	1.87	.311	.179	5.83
	x 18.7		x 27.8		2.98	.500	.353	13.1
	x 20.0		x 29.8		3.02	.500	.400	13.6
	x 21.4		x 31.8		3.45	.525	.375	15.4
	x 22.8		x 33.9		3.50	.525	.427	16.0
MC9	x 23.9	MC230	x 35.6	9.00	3.45	.550	.400	18.9
	x 25.4		x 37.8		3.50	.550	.450	19.6
MC10	x 6.5	MC250	x 9.7	10.00	1.13	.202	.152	4.42
	x 8.4		x 12.5		1.50	.280	.170	6.40
	x 21.9		x 32.6		3.45	.500	.325	19.7
	x 24.9		x 37.1		3.40	.575	.377	22.0
	x 25.3		x 37.7		3.55	.500	.425	21.4
	x 28.3		x 42.1		3.50	.575	.477	23.6
	x 28.5		x 42.4		3.95	.575	.425	25.4
	x 33.6		x 50.0		4.10	.575	.575	27.8
	x 41.1		x 61.2		4.32	.575	.796	31.6
MC12	x 10.6	MC310	x 15.8	12.00	1.50	.309	.190	9.23
	x 30.9		x 46.0		3.45	.600	.450	30.5
	x 32.9		x 49.0		3.50	.600	.500	31.8
	x 35.0		x 52.0		3.77	.700	.467	36.0
	x 37.0		x 55.0		3.60	.600	.600	34.2
	x 40.0		x 60.0		3.89	.700	.590	39.0
	x 45.0		x 67.0		4.01	.700	.712	42.0
	x 50.0		x 74.0		4.14	.700	.835	44.8
	MC13		x 31.8		MC330	x 47.3	13.00	4.00
x 35.0		x 52.0	4.07	6.10		.447		36.8
x 40.0		x 60.0	4.18	6.10		.560		42.0
x 50.0		x 74.0	4.41	6.10		.787		48.3
MC18	x 42.7	MC460	x 63.5	18.00	3.95	6.25	4.50	61.6
	x 45.8		x 68.2		4.00	6.25	.500	64.2
	x 51.9		x 77.2		4.10	6.25	.600	69.7
	x 58.0		x 86.0		4.20	6.25	.700	75.1

**Ring Rolling Guideline**



**NOTE:** The Length to be rolled should be equal to the arc length required plus sufficient overage to accommodate roll feeding practices

**I STANDARD BEAMS**  
**SPEC A-36/44W/A572-50**

New Designation				Depth	Flange		Web Thickness	Section Modulus
Old	CDN	Imp.	Metric		Width	Thickness (mean)		
				In.	In.	In.	In.	In.
S3	x 5.7	S75	x 8	4.00	2.33	3.00	.170	1.68
	x 7.5		x 11		2.51	.260	.349	1.95
S4	x 7.7	S100	x 11	5.00	2.66	.260	.193	3.04
	x 9.5		x 14.1		2.80	.293	.326	3.40
S5	x 10.0	S130	x 15	6.00	3.00	.293	.214	4.92
	x 14.75		x 22		3.28	.326	.494	6.08
S6	x 12.5	S150	x 19	7.00	3.33	.326	.232	7.37
	x 17.25		x 26		3.57	.359	.465	8.77
S7	x 15.3	S180	x 22.8	8.00	3.66	.359	.252	10.5
	x 20.0		x 30		3.86	.392	.450	12.1
S8	x 18.4	S200	x 27	10.00	4.00	.392	.271	14.4
	x 23.0		x 34		4.17	.425	.441	16.2
S10	x 25.4	S250	x 38	12.00	4.66	.425	.311	24.8
	x 35.0		x 52		4.94	.491	.594	29.4
S12	x 31.8	S310	x 47	12.00	5.00	.491	.350	36.3
	x 35.0		x 52		5.08	.544	.428	38.2
S12	x 40.8	S310	x 60.7	15.00	5.25	.544	.472	45.3
	x 50.0		x 74		5.48	.659	.687	50.8
S15	x 42.9	S380	x 64	18.00	5.50	.659	.411	59.6
	x 50.0		x 74		5.64	.622	.550	64.8
S18	x 54.7	S460	x 81.4	20.00	6.00	.622	.460	89.3
	x 70.0		x 104		6.25	.691	.711	103
S20	x 66.0	S510	x 97.3	20.30	6.25	.691	.505	119
	x 75.0		x 112		6.38	.795	.635	128
S20	x 86.0	S510	x 127		7.06	.795	.660	155
	x 96.0		x 141		7.20	.920	.800	165
S24	x 80.0	S610	x 118.9	24.00	7.00	.920	.500	175
	x 90.0		x 134		7.12	.870	.625	187
	x 100.0		x 149	24.50	7.24	.870	.745	199
S24	x 402.9	S610	x 157.6		7.87	.870	.620	240
	x 120.0		x 179	8.05	1.09	.800	258	

**I WIDE FLANGE BEAMS**  
SPEC A-36/44W/A572-50

New Designation				Depth	Flange		Web Thickness	Section Modulus
Old	CDN	Imp.	Metric		Width	Thickness		
				In.	In.	(mean) In.	In.	In. <sup>3</sup>
W4	x 13	W100	x 19	4.16	4.06	.345	.280	5.43
W5	x 16	W130	x 24	5.01	5.00	.360	.240	8.55
	x 19		x 28	5.15	5.03	.430	.270	10.2
W6	x 9	W150	x 14	5.90	3.94	.215	.170	5.56
	x 12		x 18	6.03	4.00	.280	.230	7.31
	x 16		x 24	6.28	4.03	.405	.260	10.2
W6	x 15	W150	x 22	5.99	5.99	.260	.230	9.72
	x 20		x 30	6.20	6.02	.365	.260	13.4
	x 25		x 37	6.38	6.08	.455	.320	16.7
W8	x 10	W200	x 15	7.89	3.94	.205	.170	7.81
	x 13		x 19	7.99	4.00	.255	.230	9.91
	x 15		x 22	8.11	4.02	3.15	.245	11.8
W8	x 14	W200	x 21	7.98	5.21	.250	.195	11.8
	x 18		x 27	8.14	5.25	.330	.230	15.2
	x 21		x 31	8.28	5.27	.400	.250	18.2
W8	x 24	W200	x 36	7.93	6.50	.400	.245	20.9
	x 28		x 42	8.06	6.54	.465	.285	24.3
W8	x 31	W200	x 46	8.00	8.00	.435	.285	27.5
	x 35		x 52	8.12	8.02	.495	.310	31.2
	x 40		x 59	8.25	8.07	.560	.360	35.5
	x 48		x 71	8.50	8.11	.685	.400	43.3
	x 58		x 86	8.75	8.22	.810	.510	52.0
	x 67		x 100	9.00	8.28	.935	.570	60.4
W10	x 12	W250	x 18	9.87	3.96	.210	.190	10.9
	x 15		x 22	9.99	4.00	.270	.230	13.8
	x 17		x 25	10.11	4.01	.330	.240	16.2
	x 19		x 28	10.24	4.02	.395	.250	18.8
W10	x 16	W250	x 24	9.95	5.71	.250	.195	16.6
	x 22		x 33	10.17	5.75	.360	.240	23.2
	x 26		x 39	10.33	5.77	.440	.260	27.9
	x 30		x 45	10.47	5.81	.510	.300	32.4
W10	x 33	W250	x 49	9.73	7.96	.435	.290	35.0
	x 39		x 58	9.92	7.98	.530	.315	42.1
	x 45		x 67	10.10	8.02	.620	.350	49.1
W10	x 49	W250	x 73	9.98	10.00	.560	.340	54.6
	x 54		x 80	10.09	10.00	.615	.370	60.0
	x 60		x 89	10.22	10.08	.680	.420	66.7
	x 68		x 101	10.40	10.13	.770	.470	75.7
	x 77		x 115	10.60	10.19	.870	.530	85.9
	x 88		x 131	10.84	10.26	.990	.650	98.5
	x 100		x 149	11.10	10.34	1.12	.680	112.0

**I WIDE FLANGE BEAMS**  
SPEC A-36/44W/A572-50

New Designation				Depth In.	Flange		Web Thickness In.	Section Modulus In.		
ASTM	CDN		Width		Thickness					
Imp.	Metric		In.		(mean) In.					
W12	x 14	W310	x 21	11.91	3.97	.225	.200	14.9		
	x 16		x 24	11.99	3.99	.265	.220	17.1		
	x 19		x 28	12.16	4.00	.350	.235	21.3		
	x 22		x 33	12.31	4.03	.425	.260	25.4		
W12	x 21	W310	x 31	12.04	6.45	.290	.195	26.7		
	x 26		x 39	12.22	6.49	.380	.230	33.4		
	x 30		x 45	12.34	6.52	.440	.260	38.6		
	x 35		x 52	12.50	6.56	.520	.300	45.6		
W12	x 40	W310	x 60	11.94	8.00	.515	.295	51.9		
	x 45		x 67	12.06	8.04	.575	.335	58.1		
	x 50		x 74	12.19	8.08	.640	.370	64.7		
W12	x 53	W310	x 79	12.06	10.00	.575	.345	70.6		
	x 58		x 86	12.19	10.01	.640	.360	78.0		
W12	x 65	W310	x 97	12.12	12.00	.605	.390	87.9		
	x 72		x 107	12.25	12.04	.670	.430	97.4		
	x 79		x 118	12.38	12.08	.735	.470	107		
	x 87		x 129	12.53	12.12	.810	.515	118		
	x 96	W310	x 143	12.71	12.16	.900	.550	131		
	x 106		x 158	12.89	12.22	.990	.610	145		
	x 120		x 179	13.12	12.32	1.10	.710	163		
	x 126		x 202	13.41	12.40	1.25	.790	186		
	x 152		x 226	13.71	12.48	1.40	.870	209		
	x 170		x 253	14.03	12.57	1.56	.960	235		
	x 190		x 283	14.38	12.67	1.74	1.06	263		
	W12		x 210	W310	x 313	14.72	12.80	1.90	1.18	292
			x 230		x 342	15.04	12.91	2.07	1.28	321
			x 252		x 375	15.39	12.99	2.25	1.39	351
x 279		x 415	15.87		13.15	2.47	1.53	394		
x 305		x 454	16.34		13.23	2.70	1.63	435		
x 336		x 500	16.81		13.39	2.96	1.78	483		
W14	x 22	W360	x 33	13.74	5.00	.335	.230	29.0		
	x 26		x 39	13.91	5.02	.420	.255	35.3		
W14	x 30	W360	x 45	13.84	6.73	.385	.270	42.0		
	x 34		x 51	13.98	6.74	.455	.285	48.6		
	x 38		x 57	14.10	6.77	.515	.310	54.6		
W14	x 43	W360	x 64	13.66	8.00	.530	.305	62.7		
	x 48		x 72	13.79	8.03	.595	.340	70.3		
	x 53		x 79	13.92	8.06	.660	.370	77.8		
W14	x 61	W360	x 91	13.89	10.00	.645	.375	92.2		
	x 68		x 101	14.04	10.04	.720	.415	103		
	x 74		x 110	14.17	10.07	.785	.450	112		
	x 82		x 122	14.31	10.13	.855	.510	123		



**I WIDE FLANGE BEAMS**  
SPEC A-36/44W/A572-50

	New Designation			Depth In.	Flange		Web Thickness In.	Section Modulus In. <sup>3</sup>
	ASTM	CDN			Width In.	Thickness (mean) In.		
	Imp.	Metric						
W14	x 90	W360	x 134	14.02	14.52	.710	.440	143
	x 99		x 147	14.16	14.56	.780	.485	157
	x 109		x 162	14.32	14.60	.860	.525	173
	x 120		x 179	14.48	14.67	.940	.590	190
	x 132		x 196	14.66	14.72	1.03	.645	209
W14	x 145	W360	x 216	14.78	15.50	1.09	.680	232
	x 159		x 237	14.98	15.56	1.19	.745	254
	x 176		x 262	15.22	15.65	1.31	.830	281
	x 193		x 287	15.48	15.71	1.44	.890	310
	x 211		x 314	15.72	15.80	1.56	.980	338
	x 233		x 347	16.04	15.89	1.72	1.07	375
	x 257		x 382	16.38	16.00	1.89	1.18	415
	x 283		x 421	16.74	16.11	2.07	1.29	459
	x 311		x 463	17.12	16.23	2.26	1.41	506
	x 342		x 509	17.54	16.36	2.47	1.54	559
	x 370		x 551	17.92	16.48	2.66	1.66	607
	x 398		x 592	18.29	16.59	2.84	1.77	656
	x 426		x 634	18.67	16.70	3.04	1.88	707
	x 455		x 677	19.02	16.84	3.21	2.02	756
	x 500		x 744	19.60	17.01	3.50	2.19	838
	x 550		x 818	20.24	17.20	3.82	2.38	931
	x 605		x 900	20.92	17.42	4.16	2.60	1040
x 665	x 990	21.64	17.65	4.52	2.83	1150		
x 730	x 1086	22.42	17.89	4.91	3.07	1280		
W16	x 26	W410	x 39	15.69	5.50	.345	.250	38.4
	x 31		x 46	15.88	5.52	.440	.275	47.2
W16	x 36	W410	x 54	15.86	6.98	.430	.295	56.5
	x 40		x 60	16.01	7.00	.505	.305	64.7
	x 45		x 67	16.13	7.04	.565	.345	72.7
	x 50		x 74	16.26	7.07	.630	.380	81.0
	x 57		x 85	16.43	7.12	.715	.430	92.2
W16	x 67	W410	x 100	16.33	10.24	.665	.395	117
	x 77		x 114	16.52	10.30	.760	.455	134
	x 89		x 132	16.75	10.36	.875	.525	155
	x 100		x 149	16.97	10.42	.985	.585	175

**WIDE FLANGE  
BEAMS**  
SPEC A-36/44W/A572-50

New Designation				Depth	Flange		Web Thickness	Section Modulus
ASTM	CDN		Width		Thickness (mean)	In.		
Imp.	Metric		In.	In.	In.	In.	In. <sup>3</sup>	
W18	x 35	W460	x 52	17.70	6.00	.425	.300	57.6
	x 40		x 60	17.90	6.02	.525	.515	68.4
	x 46		x 68	18.06	6.06	.605	.360	78.8
W18	x 41	W460	x 61	17.70	7.45	.425	.320	70.3
	x 45		x 67	17.86	7.48	.499	.335	80.5
	x 50		x 74	17.99	7.50	.570	.335	88.9
	x 55		x 82	18.11	7.53	.630	.390	98.3
	x 60		x 89	18.24	7.56	.695	.415	108
	x 65		x 97	18.35	7.59	.750	.450	117
	x 71		x 105	18.47	7.64	.810	.495	127
W18	x 76	W460	x 113	18.21	11.04	.680	.425	146
	x 86		x 128	18.39	11.09	.770	.480	166
	x 97		x 144	18.59	11.14	.870	.535	188
	x 106		x 158	18.73	11.20	.940	.590	204
	x 119		x 177	18.97	11.26	1.06	.655	231
W21	x 44	W530	x 66	20.66	6.50	.450	.350	81.6
	x 50		x 74	20.83	6.53	.535	.380	94.5
	x 57		x 85	21.06	6.56	.650	.405	111
W21	x 48	W530	x 72	20.06	8.14	.430	.350	93.8
	x 55		x 82	20.80	8.22	.522	.375	110
	x 62		x 92	20.99	8.24	.615	.400	127
	x 68		x 101	21.13	8.27	.685	.430	140
	x 73		x 109	21.24	8.30	.740	.455	151
	x 83		x 123	21.43	8.36	.835	.515	171
	x 93		x 138	21.62	8.42	.930	.580	192
	x 101	W530	x 150	21.36	12.29	.800	.500	227
W21	x 111		x 165	21.51	12.34	.875	.550	249
	x 122		x 182	21.68	12.39	.960	.600	273
	x 132		x 196	21.83	12.44	1.04	.650	295
	x 147		x 219	22.06	12.51	1.15	.720	329
	x 162		x 241	22.50	12.96	1.22	.705	414
W24	x 55	W1610	x 82	23.57	7.00	.505	.935	114
	x 62		x 92	23.74	7.04	.590	.430	131
W24	x 56	W610	x 84	23.48	8.90	.460	.355	126
	x 61		x 91	23.56	8.93	.500	.380	136
	x 68		x 101	23.73	8.96	.585	.415	154
	x 76		x 113	23.92	8.99	.680	.440	176
	x 84		x 125	24.10	9.02	.770	.470	196
	x 94		x 140	24.31	9.06	.875	.515	222
W24	x 104	W610	x 155	24.06	12.75	.750	.500	258
	x 117		x 174	24.26	12.80	.850	.550	291
	x 131		x 195	24.48	12.86	.960	.605	329
	x 146		x 217	24.74	12.90	1.09	.650	371
	x 162		x 241	25.00	12.96	1.22	.705	414

**I WIDE FLANGE  
BEAMS  
SPEC A-36/44W/A572-50**

New Designation				Depth	Flange			Section Modulus
ASTM	CDN		Width		Thickness	Web		
Imp.	Metric		In.	In.	(mean) In.	Thickness In.	In.	
W27	x 84	W690	x 125	26.71	9.96	.640	.460	213
	x 94		x 140	26.92	9.99	.745	.490	243
	x 102		x 152	27.09	10.02	.830	.515	267
	x 114		x 170	27.29	10.07	.900	.570	299
W27	x 146	W690	x 217	27.38	13.96	.975	.605	411
	x 161		x 240	27.59	14.02	1.08	.660	455
	x 178		x 265	27.81	14.08	1.19	.725	502
W30	x 99	W760	x 147	29.65	10.45	.670	.520	269
	x 108		x 161	29.83	10.48	.760	.545	299
	x 116		x 173	30.01	10.50	.850	.565	329
	x 124		x 185	30.17	10.52	.930	.585	355
	x 132		x 196	30.31	10.54	1.00	.615	380
W30	x 173	W760	x 257	30.44	14.98	1.06	.655	539
	x 191		x 284	30.68	15.04	1.18	.710	598
	x 211		x 314	30.94	15.10	1.31	.775	663
W33	x 118	W840	x 176	32.86	11.48	.740	.550	359
	x 130		x 193	33.09	11.51	.855	.580	406
	x 141		x 210	33.30	11.54	.960	.605	448
	x 152		x 226	33.49	11.56	1.06	.635	487
W33	x 201	W840	x 299	33.68	15.74	1.15	.715	684
	x 221		x 329	33.93	15.80	1.28	.775	757
	x 241		x 359	34.18	15.86	1.40	.830	829
W36	x 135	W920	x 201	35.55	11.95	.790	.600	439
	x 150		x 223	35.85	11.98	.940	.625	504
	x 160		x 238	36.01	12.00	1.02	.650	542
	x 170		x 253	36.17	12.03	1.10	.680	580
	x 182		x 271	36.33	12.08	1.18	.725	623
	x 194		x 289	36.49	12.12	1.26	.765	664
	x 210		x 313	36.69	12.18	1.36	.830	719
	x 230		x 342	35.90	16.47	1.26	.760	837
W36	x 245	W920	x 365	36.08	16.51	1.35	.800	895
	x 260		x 387	36.26	16.55	1.44	.840	953
	x 280		x 417	36.52	16.60	1.57	.885	1030
	x 300		x 446	36.74	16.66	1.68	.945	1110

**WE PROVIDE MILL TEST REPORTS FOR  
MOST PRODUCTS ON REQUEST**



**ROUNDS  
COLD FINISHED  
SPEC C1018**

Size In.	Wt. lbs./ft.	Size In.	Wt. lbs./ft.
1/8	.042	2-5/8	18.40
5/32	.065	2-11/16	19.29
3/16	.090	2-3/4	20.20
7/32	.128	2-13/16	21.12
1/4	.167	2-7/8	22.07
9/32	.211	2-15/16	23.04
5/16	.261	3	24.03
11/32	.316	3-1/16	25.04
3/8	.376	3-1/8	26.08
7/16	.510	3-3/16	27.13
1/2	.670	3-1/4	28.21
W16	.850	3-5/16	29.30
5/8	1.04	3-3/8	30.42
11/16	1.26	3-7/16	31.55
3/4	1.50	3-1/2	32.71
13/16	1.76	3-9/16	33.89
7/8	2.04	3-5/8	35.09
15/16	2.35	3-11/16	36.21
1	2.67	3-3/4	37.55
1-1/16	3.01	3-13/16	38.81
1-1/8	3.38	3-7/8	40.10
1-3/16	3.77	3-15/16	41.40
1-1/4	4.17	4	42.73
1-5/16	4.60	4-1/8	45.44
1-3/8	5.05	4-3/16	46.83
1-7/16	5.52	4-1/4	48.23
1-1/2	6.01	4-5/16	49.66
1-9/16	6.52	4-3/8	51.11
1-5/8	7.05	4-7/16	52.58
1-11/16	7.60	4-1/2	54.07
1-3/4	8.18	4-9/16	55.59
1-13/16	8.77	4-5/8	57.12
1-7/8	9.39	4-11/16	58.67
1-15/16	10.02	4-3/4	60.25
2	10.58	4-7/8	63.46
2-1/16	11.36	4-15/16	65.10
2-1/8	12.06	5	66.76
2-3/16	12.78	5-1/8	70.14
2-1/4	13.52	5-1/4	73.60
2-5/16	14.28	5-7/16	78.95
2-3/8	15.06	5-1/2	80.78
2-7/16	15.87	5-3/4	88.29
2-1/2	16.69	5-5/16	94.14
2-9(16)	17.53	6	96.13



**SQUARES  
COLD FINISHED  
SPEC C1018**

Size In.	Wt. lbs./ft.
1/8	.053
3/16	.120
1/4	.210
5/16	.330
3/8	.480
7/16	.651
1/2	.850
9/16	1.08
5/8	1.33
11/16	1.61
3/4	1.91
13/16	2.25
7/8	2.50
15/16	2.99
1	3.40
1-1/16	3.84
1-1/8	4.30
1-3/16	4.80
1-1/4	5.31
1-5/16	5.86
1-3/8	6.43
1-7/16	7.03
1-1/2	7.55
1-5/8	8.98
1-3/4	10.41
1-7/8	11.95
2	13.50
2-1/8	15.35
2-1/4	17.21
2-3/8	19.18
2-1/2	21.25
2-5/8	23.43
2-3/4	25.71
3	30.60
3-1/2	41.65
4	54.40

• OTHER GRADES AVAILABLE •  
• COLD FINISHED FLATS - PLEASE ENQUIRE •

**Reinforcing Bars**

G400 W

~~The nominal dimension of a deformed bar are equivalent to those of a plain~~

**METRIC STANDARD REINFORCING BARS**

BAR SIZE	MASS	WEIGHT	NOMINAL DIMENSIONS - ROUND BARS					
			Diameter		Cross Sectional Area		Perimeter	
			mm	In	mm <sup>2</sup>	In <sup>2</sup>	mm	In
10M	.785	.530	11.3	.445	100	.16	35.5	1.398
15M	1.570	1.06	16.0	.630	200	.31	50.1	1.972
20M	2.355	1.58	19.5	.768	300	.47	61.3	2.413
25M	3.925	2.64	25.2	.992	500	.78	79.2	3.118
30M	5.495	3.69	29.9	1.177	700	1.09	93.9	3.697
35M	7.850	5.28	35.7	1.405	1000	1.55	112.2	4.417
45M	11.775	7.912	43.7	1.720	1500	2.33	137.3	5.406
55M	19.625	13.187	56.4	2.220	2500	3.88	177.2	6.976

bar having the same mass per metre (weight per foot) as the deformed bar.

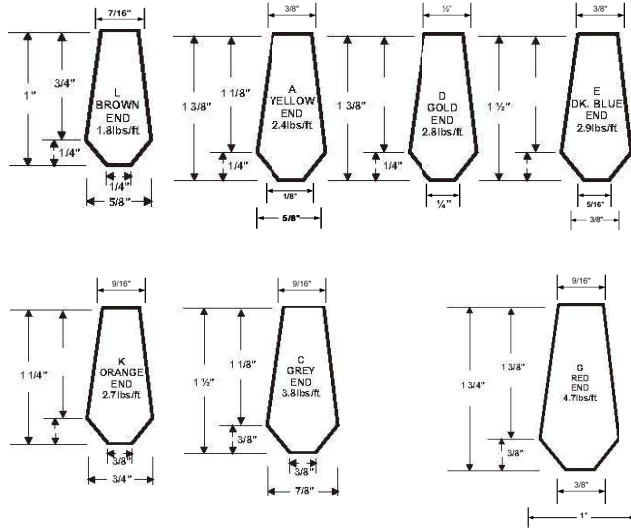
**STOCKED IN 6 METRE LENGTHS**

Bars are available in three grades providing different levels of strength.

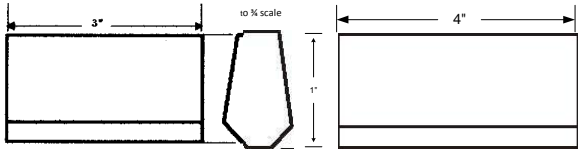
GRADE	Minimum Tensile Strength		Minimum Yield Strength	
	MPa	Ksl	MPa	Ks
300	450	65.3	300	43.5
350	550	79.8	350	50.8
400	600	87.0	400	58.0

<sup>2</sup> Yield Point

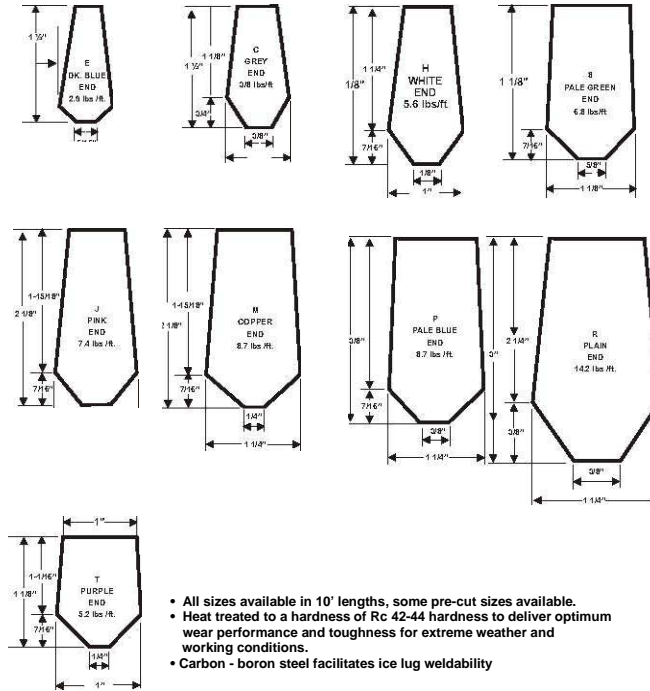
**Grouser Bar**  
BARS SUPPLIED IN 10 FOOT LENGTHS\*



**ICE LUGS**



**IMPORTANT**  
When ordering, please order by the letter or letters shown on the drawing of the size or sizes of the Grouser Bar that you require.



- All sizes available in 10' lengths, some pre-cut sizes available.
- Heat treated to a hardness of Rc 42-44 hardness to deliver optimum wear performance and toughness for extreme weather and working conditions.
- Carbon - boron steel facilitates ice lug weldability

### General Information

1. Sheffield - Butler Premium Grouser Bar is made a special high quality work hardening steel and becomes harder and tougher with use.
2. Strict control ensures high quality...always.
3. Gives more mileage under all operating conditions.
4. Reduces down time.
5. Rebuilds worn Grousers to original size and gripping power.
6. Application is simple, fast and economical either by hand or automatic welding.
7. Use in making coal or rock crusher screens or in repair of excavator buckets.
8. The thirteen sizes are supplied in 10 - foot lengths. Section R is available in heat treated pre-cut 32" lengths only.
9. Pre-cut ice lugs in sizes LS and L in stock. Other sizes available upon request.
10. Sheffield-Butler Premium Grouser Bar will save you money!
11. General welding procedures and bar specifications available upon request.



**HOT ROLLED SHEETS  
Commercial Quality - ASTM A569**

Size in Inches	Weight Per Sheet	Size in Inches	Weight Per Sheet
16g. = .0598" = 2.500 lbs. per sq. ft.		11 ga. = .1196" = 5.00 lbs. per sq. ft.	
16 ga. 48 x 96	80.00	11 ga. 48 x 96	160.00
120	100.00	120	200.00
144	120.00	144	240.00
60 x 120	125.00	60 x 120	250.00
144	150.00	144	300.00
14 ga. = .0747" = 3.125 lbs. per sq. ft.		72 x 120	300.00
14 ga. 48 x 96	100.00	144	360.00
120	125.00	10 ga. = .1345" = 5.625 lbs. per sq. ft.	
144	150.00	10 ga. 48 x 96	180.00
60 x 120	156.25	120	225.00
144	187.50	144	270.00
72 x 120	187.50	60 x 120	281.25
144	225.00	144	337.50
12 ga. = .1046" = 4.375 lbs. per sq. ft.		72 x 120	337.50
12 ga. 48 x 96	140.00	144	405.00
120	175.00	Weights may vary due to production tolerances.	
144	210.00		
60 x 120	218.75		
144	262.50		
72 x 120	262.50		
144	315.00		

**Please contact our sales department for special lengths.**

**PRICE STEEL LTD.**

**ASTM - A36 OR CSA G40.21 - 44W / 300W Steel Plates**

Size in Inches	Weight Per Sheet	Size in Inches	Weight Per Sheet
<b>3/16" = .1875" = 7.66 lbs. per sq. ft.</b>		<b>5/16" = .3125" = 12.75 lbs. per sq. ft.</b>	
3/16" x 96	254.12	5/16" 48 x 96	408.32
120	306.40	120	510.40
144	367.68	144	612.48
240	612.80	240	1020.80
288	735.36	288	1224.96
60 x 120	383.00	60 x 120	638.00
144	459.60	144	765.60
240	766.00	240	1276.00
288	919.20	288	1531.20
72 x 120	459.60	72 x 120	765.60
144	551.52	144	918.72
240	919.20	240	1531.20
288	1103.04	288	1837.44
84 x 120	536.20	384	2449.92
144	643.44	84 x 120	893.20
240	1072.40	144	1071.84
288	1286.88	240	1786.40
96 x 120	612.80	288	2143.68
144	735.36	96 x 120	1020.80
240	1225.60	144	1224.96
288	1470.72	240	2041.60
<b>1/4" = .250" = 10.21 lbs. per sq. ft.</b>		288	2449.92
14" 48 x 96	326.72	384	3266.56
120	408.40	<b>3/8" = .375" = 15.32 lbs. per sq. ft.</b>	
144	490.08	3/8" 48 x 96	490.24
240	816.80	120	612.80
288	980.16	144	735.36
60 x 120	510.50	240	1225.60
144	612.60	288	1470.72
240	1021.00	60 x 120	766.00
288	1225.20	144	919.20
72 x 120	612.60	240	1532.00
144	735.12	288	1838.40
240	1225.20	72 x 120	919.20
288	1470.24	144	1103.04
84 x 120	714.70	240	1838.40
144	857.64	288	2206.08
240	1429.40	384	2941.44
288	1715.28	84 x 120	1072.40
96 x 120	816.80	144	1286.88
144	980.16	240	2144.80
240	1633.60	288	2573.76
288	1960.32	96 x 120	1225.60
384	2613.76	144	1470.72
120 x 480	4084.00	240	2451.20
Size shown are not necessarily stock items and are shown for weight reference only.		288	2941.44
		384	3921.92
		120 x 480	6128.00

**ASTM - A36 OR CSA G40.21 - 44W / 300W Steel Plates**

Size in Inches	Weight Per Sheet	Size in Inches	Weight Per Sheet
1/2" = .500" = 20.42 lbs. per sq. ft.		3/4" = .750" = 30.63 lbs. per sq. ft.	
1/2" x 48 x 96	653.44	3/4" x 48 x 96	980.16
120	816.80	120	1225.20
144	980.16	144	1470.24
240	1633.60	240	2450.40
288	1960.32	288	2940.48
60 x 120	1021.00	60 x 120	1531.50
144	1225.20	144	1837.80
240	2042.00	240	3063.00
288	2450.40	288	3675.60
72 x 120	1225.20	72 x 120	1837.80
144	1470.24	144	2205.36
240	2450.40	240	3675.60
288	2940.48	288	4410.72
384	3920.64	384	5880.96
84 x 120	1429.40	96 x 120	2540.40
144	1715.28	144	2940.48
240	2858.80	240	4900.80
288	3430.56	288	5880.96
384	4374.28	384	7841.28
96 x 120	1633.60	120 x 480	12252.00
144	1960.32	7/8" = .875" = 35.73 lbs. per sq. ft.	
240	3267.20	7/8" x 48 x 96	1143.68
288	3920.64	120	1429.60
384	5227.52	144	1715.52
120 x 480	8168.00	240	2859.20
5/8" = .625" = 25.53 lbs. per sq. ft.		288	3431.04
5/8" x 48 x 96	816.96	60 x 120	1787.00
120	1021.20	144	2144.40
144	1225.44	240	3574.00
240	2042.40	72 x 288	5146.56
288	2450.88	96 x 120	2859.20
60 x 120	1276.50	144	3431.04
144	1531.80	240	5718.40
240	2553.00	288	6865.08
288	3063.60	384	9149.44
72 x 120	1531.80	Please contact our Sales Department for special lengths.	
144	1838.16	We can flame cut to special lengths or widths	
240	3063.60		
288	3676.32		
384	4901.76		
96 x 120	2042.40		
144	2450.88		
240	4084.80		
288	4901.76		
384	6535.68		
Size shown are not necessarily stock items and are shown for weight reference only.			