

IRON and STEEL REFERENCE BOOK



Amerikan Steels Pvt. Ltd.

ISO 9001:2000 CERTIFIED COMPANY

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INDEX

M. S. ROUND & SQUARES	1-2
RIBBED DEFORMED BARS	3
M. S. EQUAL ANGLES	4-5
M. S. BEAMS	6
M. S. RAILS & Tees	7
M. S. CHANNELS	8
SHEETS	9-10
M. S. PLATES	11-16
Chequered Plates	17
Conversion Table	18
M. S. Flats	19-20
UN EQUAL ANGLES	21-22

M. S. ROUND & SQUARES

Size MM	Kg. / m.	Kg. / m.
5.0	0.15	0.20
6.0	0.22	0.28
8.0	0.39	0.50
10.0	0.62	0.78
12.0	0.90	1.13
16.0	1.60	2.01
18.0	2.00	2.54
20.0	2.50	3.14
22.0	3.00	3.80
25.0	3.80	4.91
27.0	4.48	-
28.0	4.80	6.15
32.0	6.30	8.04
33.5	6.92	-
36.0	8.00	10.17
40.0	9.90	12.56
45.0	12.30	15.90

M. S. ROUND & SQUARES

Size MM	Kg. / m.	Kg. / m.
47	13.62	-
50	15.40	19.62
53	17.32	-
56	19.34	24.62
63	24.50	31.16
67	27.70	-
71	31.80	39.57
80	39.46	50.24
90	49.94	63.58
100	61.66	78.50
110	74.60	94.98
125	96.34	122.66
140	120.84	153.86
160	157.84	200.95
180	200.00	254.34
200	246.62	324.00

RIBBED DEFORMED BARS

- 1) Torsteel or Twisted Bar ISS 1786
- 2) Tistrong Bar or Grip Bar ISS 1139

Thickness in mm.	Weight in Kg. / m.	Length in Meter / Ton.
6	0.222	4510
8	0.395	2532
10	0.617	1621
12	0.888	1125
16	1.578	633
20	2.466	405
22	2.980	336
25	3.854	260
28	4.830	207
32	6.313	159
36	7.990	125
40	9.864	101
50	15.410	65

M. S. EQUAL ANGLES

Size in mm.	Wt. per meter in Kg.
20 X 20 X 3	0 . 9
25 X 25 X 3	1 . 1
25 X 25 X 5	1 . 8
30 X 30 X 3	1 . 4
35 X 35 X 3	1 . 6
35 X 35 X 5	2 . 6
40 X 40 X 3	1 . 8
40 X 40 X 5	3 . 0
40 X 40 X 6	3 . 5
45 X 45 X 5	3 . 4
45 X 45 X 6	4 . 0
50 X 50 X 5	3 . 8
50 X 50 X 6	4 . 5
65 X 65 X 6	5 . 8
65 X 65 X 8	7 . 7
65 X 65 X 10	9 . 4

M. S. EQUAL ANGLES

Size in mm.	Wt. per meter in Kg.
75 X 75 X 6	06 . 8
75 X 75 X 8	08 . 9
75 X 75 X 10	11 . 0
90 X 90 X 6	08 . 2
90 X 90 X 8	10 . 8
90 X 90 X 10	13 . 4
90 X 90 X 12	15 . 8
100 X 100 X 6	09 . 2
100 X 100 X 8	12 . 1
100 X 100 X 10	14 . 9
100 X 100 X 12	17 . 7
110 X 110 X 8	13 . 4
110 X 110 X 10	16 . 5
150 X 150 X 10	22 . 8
150 X 150 X 11	27 . 2
200 X 200 X 12	36 . 6

M. S. BEAMS

Size in mm.	Weight in Kg. / m.
ISLAB 100 X 50	8 . 00 Kgs.
ISMB 116 X 100	23 . 00 Kgs.
ISMB 125 X 75	13 . 20 Kgs.
ISMB 150 X 80	15 . 00 Kgs.
ISMB 175 X 85	19 . 50 Kgs.
ISMB 200 X 100	25 . 40 Kgs.
ISMB 225 X 110	31 . 20 Kgs.
ISMB 250 X 125	37 . 30 Kgs.
ISLB 300 X 150	37 . 70 Kgs.
ISMB 300 X 140	44 . 20 Kgs.
ISLB 350 X 165	49 . 50 Kgs.
ISMB 350 X 140	52 . 40 Kgs.
ISMB 400 X 140	61 . 60 Kgs.
ISLB 400 X 165	56 . 90 Kgs.
ISMB 450 X 150	72 . 40 Kgs.
ISMB 500 X 180	86 . 92 Kgs.
ISMB 600 X 210	122 . 60 Kgs.

M. S. RAILS

Size	Wt. Kg / m
BS 30 lb./Yard	14 . 88
BS 90 lb./Yard	44 . 61
BS 105 lb./Yard	52 . 08
CR 80	63 . 52
CR 100	88 . 73

M. S. TEES

20 X 20 X 3 mm	0 . 90
25 X 25 X 3 mm	1 . 15
30 X 30 X 3 mm	1 . 40
40 X 40 X 6 mm	3 . 50
50 X 50 X 6 mm	4 . 50
60 X 60 X 6 mm	5 . 40
75 X 75 X 10 mm	10 . 95
100 X 100 X 10 mm	14 . 90
150 X 150 X 10 mm	22 . 70

M. S. CHANNELS

Size in mm.	Weight in Kg. / m.
75 X 40	6 . 8
100 X 50	9 . 2
125 X 65	12 . 8
150 X 75	16 . 4
175 X 75	19 . 2
200 X 75	22 . 2
225 X 80	24 . 0
225 X 90	26 . 0
250 X 82	34 . 2
300 X 90	35 . 9
400 X 100	49 . 5

SHEETS

Thickness		Weight per Sq. meter in Kg.	900
mm.	BG.		
4 . 00		31 . 40	28 . 26
3 . 15	10 G	24 . 75	22 . 27
2 . 80	11 G	22 . 00	19 . 80
2 . 50	12 G	19 . 00	17 . 64
2 . 24	13 G	17 . 60	15 . 84
2 . 00	14 G	15 . 70	14 . 13
1 . 80	15 G	14 . 15	12 . 73
1 . 60	16 G	12 . 55	11 . 30
1 . 40	17 G	11 . 00	9 . 90
1 . 25	18 G	9 . 80	8 . 82
1 . 12	19 G	8 . 80	7 . 92
1 . 00	20 G	7 . 85	7 . 07
0 . 90	21 G	7 . 05	6 . 35
0 . 80	22 G	6 . 30	5 . 67
0 . 63	24 G	4 . 95	4 . 45
0 . 50	26 G	3 . 90	3 . 51
0 . 40	28 G	3 . 15	2 . 84



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SHEETS

Width in mm			
1000	1100	1200	1250
Wt. in Kg. per on meter length			
31 . 40	34 . 54	37 . 78	39 . 25
24 . 75	27 . 22	29 . 70	30 . 94
22 . 00	24 . 20	26 . 40	27 . 40
19 . 60	21 . 56	23 . 53	24 . 50
17 . 60	19 . 36	21 . 12	22 . 00
15 . 70	17 . 27	18 . 84	19 . 62
14 . 15	15 . 56	16 . 93	18 . 44
12 . 55	13 . 80	15 . 06	15 . 69
11 . 00	12 . 00	13 . 20	13 . 75
9 . 80	10 . 78	11 . 76	12 . 25
8 . 80	9 . 68	10 . 56	11 . 00
7 . 85	8 . 64	9 . 42	9 . 81
7 . 05	7 . 75	8 . 46	8 . 81
6 . 30	6 . 93	7 . 56	7 . 87
4 . 95	5 . 45	5 . 94	6 . 19
3 . 90	4 . 29	4 . 68	4 . 87
3 . 15	3 . 47	3 . 78	3 . 94

M. S. PLATES

Thickness in mm	Wt. per Sq. m. in Kg.	Wt. per Sq. FT. in Kg.
5 mm	39 . 2 Kg.	3 . 64
5.5 mm	43 . 2 Kg.	4 . 01
6 mm	47 . 1 Kg.	4 . 38
7 mm	55 . 0 Kg.	5 . 11
8 mm	62 . 8 Kg.	5 . 87
9 mm	70 . 6 Kg.	6 . 56
10 mm	78 . 5 Kg.	7 . 29
11 mm	86 . 4 Kg.	8 . 03
12 mm	94 . 2 Kg.	8 . 75
14 mm	109 . 9 Kg.	10 . 21
16 mm	125 . 6 Kg.	11 . 68
18 mm	141 . 3 Kg.	13 . 13
20 mm	157 . 0 Kg.	14 . 59

M. S. PLATES

Thickness in mm	Wt. per Sq. m. in Kg.	Wt. per Sq. FT. in Kg.
22 mm	172.7 Kg.	16 . 04
25 mm	196.2 Kg.	18 . 23
28 mm	219.8 Kg.	20 . 42
32 mm	251.2 Kg.	23 . 34
36 mm	282.6 Kg.	26 . 25
40 mm	314.0 Kg.	29 . 17
45 mm	353.2 Kg.	32 . 81
50 mm	392.5 Kg.	36 . 46
56 mm	439.6 Kg.	40 . 83
63 mm	494.6 Kg.	45 . 95
71 mm	557.4 Kg.	51 . 78
80 mm	628.0 Kg.	58 . 34

M. S. PLATES

Size in Ft.	Gauge	Thickness in mm	Weight per sq. ft.	Wt. per pc. Kgs.	Pc. in M/Ton
6 X 3	10	3.15	2.313	41.634	24
8 X 3	10	3.15	2.313	55.512	19
8 X 4	10	3.15	2.313	74.016	14
6 X 3	12	2.50	1.834	33.012	30
8 X 3	12	2.50	1.834	44.016	23
8 X 4	12	2.50	1.834	58.688	18
6 X 3	14	2.00	1.453	26.154	39
8 X 3	14	2.00	1.453	34.812	29
8 X 4	14	2.00	1.453	46.496	22
6 X 3	16	1.60	1.157	20.826	48
8 X 3	16	1.60	1.157	27.768	36
8 X 4	16	1.60	1.157	37.024	27
10 X 3	16	1.60	1.157	34.710	29
6 X 3	18	1.25	0.916	16.488	61
8 X 3	18	1.25	0.916	21.984	46
8 X 4	18	1.25	0.916	29.312	33
10 X 3	18	1.25	0.916	27.480	37
6 X 3	20	1.00	0.725	13.050	77
8 X 3	20	1.00	0.725	17.400	58
8 X 4	20	1.00	0.725	23.000	47
10 X 4	20	1.00	0.725	29.000	35
6 X 3	22	0.80	0.578	10.404	97
8 X 3	22	0.80	0.578	13.872	73
8 X 4	22	0.80	0.578	18.496	55
6 X 3	24	0.63	0.459	8.262	121
8 X 3	24	0.63	0.459	11.016	91
8 X 4	24	0.63	0.459	14.688	68
6 X 3	26	0.50	0.363	6.534	154
8 X 3	26	0.50	0.363	8.712	115
8 X 4	26	0.50	0.363	11.616	85

GAUGE	INCH	M.M.
0	0 . 324	8.229
1	0 . 300	7.620
2	0 . 276	7.010
3	0 . 252	6.400
4	0 . 232	5.892
5	0 . 212	5.384
6	0 . 192	4.876
7	0 . 176	4.470
8	0 . 160	4.064
9	0 . 144	3.657
10	0 . 128	3.251
11	0 . 116	2.946
12	0 . 104	2.641
13	0 . 092	2.336
14	0 . 080	2.032
15	0 . 072	1.828
16	0 . 064	1.625
17	0 . 056	1.422
18	0 . 048	1.219
19	0 . 040	1.016
20	0 . 036	0.914

GAUGE	INCH	M.M.
21	0 . 032	0 . 812
22	0 . 028	0 . 711
23	0 . 024	0 . 609
24	0 . 022	0 . 558
25	0 . 020	0 . 508
26	0 . 018	0 . 457
27	0 . 0164	0 . 416
28	0 . 0148	0 . 375
29	0 . 0136	0 . 345
30	0 . 0124	0 . 314
31	0 . 0116	0 . 294
32	0 . 0106	0 . 274
33	0 . 0100	0 . 254
34	0 . 0092	0 . 233
35	0 . 0084	0 . 213
36	0 . 0076	0 . 193
37	0 . 0068	0 . 172
38	0 . 0060	0 . 152
39	0 . 0052	0 . 132
40	0 . 0048	0 . 121

Chequered Plates

Thickness in mm	Wt. in Kg. per Sq. ft	Wt. in Kg. per Sq. mtr.
5 mm	3.969 Kg.	42.72 Kg.
6 mm	5.216 Kg.	56.148 Kg.
8 mm	6.123 Kg.	65.912 Kg.
10 mm	7.371 Kg.	79.339 Kg.
12 mm	9.639 Kg.	103.751 Kg.

M. S. Window Sections

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Gate Channels	0 .82 Kg / m
4 B	2 . 22 Kg / m
F 7 B	1 . 53 Kg / m
E Z 7	1 . 91 Kg / m
T 1	1 . 03 Kg / m

Conversion Table

Inch	Mm.	Inch	Mm.
1/16 "	1.587	13/32 "	10.318
3/32 "	2.381	7/16 "	11.112
1/8 "	3.175	1/2 "	12.700
5/32 "	3.968	9/16 "	14.287
3/16 "	4.762	5/8 "	15.875
7/32 "	5.556	11/16 "	17.462
1/4 "	6.350	3/4 "	19.050
9/32 "	7.143	13/16 "	20.637
5/16 "	7.937	7/8 "	22.225
1/32 "	8.731	15/16 "	23.812
3/8 "	9.525	1/00 "	25.400

M. S. FLATS

Width mm.	Thickness in mm.				Kg. per meter			
	5	6	8	10	12	16	20	25
12	0.5	0.8	0.8	0.9	1.1	1.5	1.9	2.4
16	0.6	1.0	1.0	1.3	1.5	2.0	2.5	3.1
20	0.8	1.3	1.3	1.6	1.9	2.5	3.1	3.9
25	1.0	1.6	1.6	2.0	2.4	3.1	3.9	4.9
32	1.3	2.0	2.0	2.5	3.0	4.0	5.0	6.3
40	1.6	2.5	2.5	3.1	3.8	5.0	6.3	7.8
50	2.0	3.1	3.1	3.9	4.7	6.3	7.8	9.8
63	2.5	4.0	4.0	4.9	5.9	7.9	9.9	12.4
75	2.9	4.7	4.7	5.9	7.1	9.4	11.8	14.7
80	3.1	5.0	5.0	6.3	7.5	10.0	12.6	15.7
100	3.9	6.3	6.3	7.8	9.4	12.6	15.7	19.6
125	4.9	7.8	7.8	9.8	11.8	15.7	19.6	24.5
150	-	9.4	9.4	11.8	14.1	18.8	23.6	29.4
160	6.3	10.0	10.0	12.6	15.1	20.1	25.1	31.4
200	7.8	12.6	12.6	15.7	18.8	25.1	31.4	39.2
250	9.8	15.7	15.7	19.6	23.6	31.4	39.2	49.1

UN EQUAL ANGLES

Size in mm.	Wt. per meter in Kg.
45 X 30 X 5	2 . 8
45 X 30 X 6	3 . 3
65 X 45 X 6	6 . 4
75 X 50 X 6	5 . 6
75 X 50 X 8	7 . 4
75 X 50 X 10	9 . 0
90 X 60 X 6	6 . 8
90 X 60 X 10	11 . 0
100 X 75 X 8	10 . 5
100 X 75 X 10	13 . 0
125 X 75 X 8	12 . 1
125 X 75 X 10	14 . 9
150 X 115 X 10	20 . 2
150 X 115 X 12	23 . 8
150 X 115 X 16	31 . 3

UN EQUAL ANGLES

Meter	Ft./M.	Feet
0.3048	1	3.2808
0.6096	2	6.5617
0.9144	3	9.8425
1.2192	4	13.1233
1.5240	5	16.4042
1.8288	6	19.6850
2.1336	7	22.9658
2.4384	8	26.2467
2.7432	9	29.5275
3.0481	10	32.8082



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