

An ISO 9001 Certified Co.

भारतीय[®] Since 1960...

Structural Support for your "TOWER"ing Success



Manufacturer & Exporters of : Mild Steel Angles, Channels, Beams, T-Bars, Flats

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CHAIRMAN'S MESSAGE :



The success of our company can be attributed to our ability to continually identify & respond to the changing demands of our clients. Our journey over past five decade is fascinating saga of pioneering initiative with the tools of preparedness, foresight and strategy. Combining our vision, passion & commitment with our customers and- product – focused business model, we have made significant advances in building and delivering our values propositions.

The eminence of our Group began as the dream of our man Late. Shri S. H Jain extended to be transformed into the dream of many.

I am glad that you are interested in taking a look at “**BHARTIYA**” and perhaps joining us in our journey .Thus we hope that you will henceforth keep in regular touch with us so that good business relationship may be maintained forever between us.

M.L Jain
CMD
BHARTIYAGROUP OF INDUSTRIES



DIRECTOR'S PROFILE :



CHANDULAL JAIN

DIRECTOR

Mr. C. L Jain a commerce graduate has vast experience in the steel industry of 30 years. He has been association with the company since 1980. He is responsible for the overall working of the Group and is instrumental in making decision.

His far reading vision, management skills, innovative ideas, uniting efforts makes him a dynamic leader. Under his potential leadership Group has seized many opportunities and achieved milestones, His engineering skills are unparalleled. He is an active member of various social groups & has been honored for his marvelous service towards upliftment of the weaker section of society.



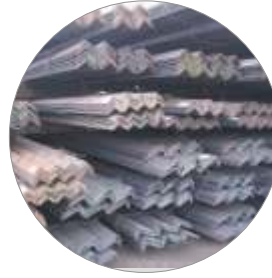
DINESH M. JAIN

DIRECTOR

He is heir of a family of self-made business entrepreneurs; a commerce graduate has wide experience in implementation & operation of steel plant. He has been working at the Group Maharashtra Plant since 2000.

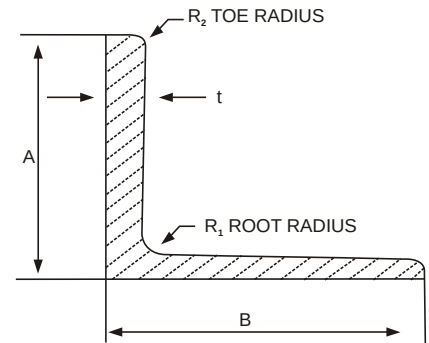
He expertise in maintaining Public relation & networking and hence is more on image building of company. His magnetic personality has made him an icon for many young aspirants.

MILD STEEL ANGLE :



Section	IS 808 BSEN 10056-1&11			
	Root Radius	Kg/m	Root Radius	Kg/m
20x20x3	4	0.9	3.5	0.88
25x25x3	5	1.1	3.5	1.12
25x25x4	5	1.4	3.5	1.45
30x30x3	5	1.4	5	1.36
30x30x4	5	1.8	5	1.78
35x35x4	5	2.1	5	2.09
45x30x3	5	1.7	4.5*	1.72*
45x30x4	5	2.2	4.5	2.25
45x30x5	5	2.8	4.5*	2.77*
40x40x3	5.5	1.8	6*	1.84*
40x40x4	5.5	2.4	6	2.42
40x40x5	5.5	3	6	2.97
45x45x3	5.5	2.1	7*	2.09*
45x45x4	5.5	2.7	7*	2.74*
45x45x4.5	5.5*	3.06*	7	3.06
45x45x5	5.5	3.4	7*	3.38*
45x45x6	5.5	4	7*	3.99*
50x50x3	6	2.3	7*	2.33*
50x50x4	6	3	7	3.06
50x50x5	6	3.8	7	3.77
50x50x6	6	4.5	7	4.47
55x55x4	6.5	3.3	7*	3.38*
55x55x5	6.5	4.1	7*	4.17*
60x60x4	8	3.7	8*	3.69*
60x60x5	6.5	4.5	8	4.57
60x60x6	6.5	5.4	8	5.42
60x60x8	6.5	7	8	7.09
65x65x4	6.5	4	9*	4.03*
65x65x5	6.5	4.9	9*	4.97*
65x65x6	6.5	5.8	9*	5.91*
65x65x7	6.5*	6.79*	9	6.83
65x65x8	6.5	7.7	9*	7.73*

Section	IS 808 BSEN 10056-1&11			
	Root Radius	Kg/m	Root Radius	Kg/m
70x70x5	7	5.3	9*	5.37*
70x70x6	7	6.3	9	6.38
70x70x7	7*	7.35*	9	7.38
75x75x5	7	5.7	9*	5.76*
75x75x6	7	6.8	9	6.85
75x75x8	8	8.9	9	8.99
80x80x6	8	7.3	10*	7.34*
80x80x8	8	9.6	10	9.63
80x80x10	8.5	11.8	10	11.90
90x90x6	8.5	8.2	11*	8.30*
90x90x7	8.5*	9.57*	11	9.61
90x90x8	8.5	10.8	11	10.90
90x90x9	8.5*	12.14*	11	12.20
90x90x10	8.5	13.4	11	13.40
100x100x6	12	9.2	12	NS
100x100x7	8.5	10.7	12*	10.73*
100x100x8	8.5	12.1	12	12.20
100x100x10	8.5	14.9	12	15.00
100x100x12	10	17.7	12	17.80
110x110x8	10	13.4	12.5*	13.45*
110x110x9	10*	14.99	12.5*	15.04*
110x110x10	10	16.6	12.5*	16.62*
110x110x11	10*	18.13*	12.5*	18.18*
110x110x12	13	19.7	12.5*	19.73*
120x120x8	13	14.7	13*	14.71*
120x120x9	13*	16.46*	13*	16.46*
120x120x10	13	18.20	13	18.20
120x120x11	13*	19.92*	13*	19.92*
120x120x12	10	21.60	13	21.60
130x130x10	10	19.70	14*	19.79*
130x130x11	10*	21.59*	14*	21.67*
130x130x12	10	23.50	14	23.60



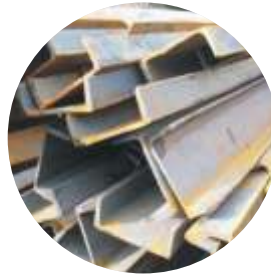
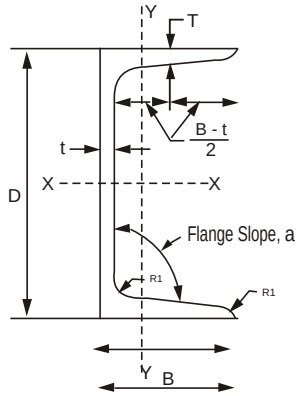
Section	IS 808 BSEN 10056-1&11			
	Root Radius	Kg/m	Root Radius	Kg/m
150x150x10	12	22.90	16	23.00
150x150x12	12	27.30	16	27.30
150x150x14	12*	31.56*	16*	31.65*
150x150x15	16	33.80	16	33.80
150x150x16	12	35.80	16*	35.89*
150x150x18	16	40.10	16*	40.06*
150x150x20	12	44.10	16*	44.18*
160x160x15	16*	36.13*	17	36.20
175x175x15	16*	39.67*	17*	39.65*
180x180x14	18*	38.22*	18*	38.50*
180x180x16	18*	43.40*	18	43.50
180x180x18	18	48.60	18	48.60
200x200x16	15	48.50	18	48.50
200x200x18	18*	54.17*	18	54.30
200x200x20	15	60.00	18	59.90
200x200x24	18	71.10	18	71.10
200x200x25	15	73.90	18*	73.87*
250x250x25	18	93.70	18*	93.50*
250x250x28	18*	104.02*	18	104.00
250x250x32	18*	117.84*	18*	117.84*
250x250x35	18*	128.04*	18	128.00

Note* Section whose sectional weights are not specified in standard is calculated by formula given in specification and ROOT Radius shall be that of same flange size of section.

Only Bulk Quantity will be Accepted.

Rolling Tolerances

Leg length	Sectional weight	Length
Up to 45 mm : ± 1.5 mm	3 mm thickness : ± 5 %	For fixed length : ± 100 mm
45 mm to 100 mm : ± 2 mm	Over 3 mm thickness : $\pm 5/-3$ %	
above 100 mm : ± 2 %		
UNEQUAL $+2.0$ -1.5 mm for shorter leg refer first table		

MILD STEEL CHANNEL :

Dimensions, Mass and Sectional Properties of Sloping Flange Channels

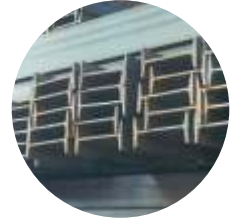
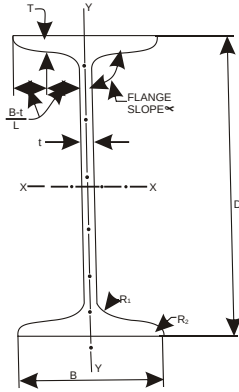
Designation (01)	Mass M kg/m (02)	Sectional Area, a cm ² (03)	Dimensions							Sectional Properties						
			D	B	t	T	Flange Slope a	R ₁	R ₂	C _y	I _x	I _y	r _x	r _y	Z _x	Z _y
			mm (04)	mm (05)	mm (06)	mm (07)	deg. (08)	mm (09)	mm (10)	mm ⁴ (11)	mm ⁴ (12)	mm (13)	mm (14)	mm (15)	cm ³ (16)	cm ³ (17)
Medium Weight Channels																
MC 75	7.14	9.10	75	40	4.8	7.5	96	8.5	2.4	1.32	78.5	12.9	2.94	1.19	20.9	4.81
MC 100	9.56	12.2	100	50	5.0	7.7	96	9.0	2.4	1.54	192	26.7	3.97	1.48	33.5	7.71
MC 125	13.1	16.7	125	65	5.3	8.2	96	9.5	2.4	1.95	425	61.1	5.05	1.91	68.1	13.4
MC 125*	13.7	17.5	125	66	6.0	8.1	96	9.5	2.4	1.92	435	64.4	4.98	1.92	69.6	13.8
MC 150	16.8	21.3	150	75	5.7	9.0	96	10.0	2.4	2.20	788	103	6.08	2.20	105	19.5
MC 150*	17.7	22.6	150	76	6.5	9.0	96	10.0	2.4	2.17	813	110	6.00	2.20	108	20.2
MC 175	19.6	24.9	175	75	6.0	10.2	96	10.5	3.2	2.19	1240	122	7.04	2.21	141	23.0
MC 175*	22.7	27.6	175	76	7.5	10.2	96	10.5	3.2	2.14	1310	136	6.89	2.22	150	24.5
MC 200	22.3	28.5	200	75	6.2	11.4	96	11.0	3.2	2.20	1830	141	8.02	2.22	181	26.4
MC 200*	24.3	31.0	200	76	7.5	11.4	96	11.0	3.2	2.12	1910	151	7.85	2.21	191	27.5
MC 225	26.1	33.3	225	80	6.5	12.4	96	12.0	3.2	2.31	2710	188	9.02	2.37	241	33.0
MC 225*	30.7	39.0	225	82	9.0	12.4	96	12.0	3.2	2.22	2960	219	8.71	2.37	263	36.0
MC 250	30.6	39.0	250	80	7.2	14.1	96	12.0	3.2	2.30	3880	211	9.92	2.37	307	38.5
MC 250*	34.2	43.5	250	82	9.0	14.1	96	12.0	3.2	2.23	4080	244	9.68	2.37	326	40.9
MC 250*	38.1	48.5	250	83	11.0	14.1	96	12.0	3.2	2.19	4340	268	9.46	2.35	347	43.2
MC 300	36.3	46.3	300	90	7.8	13.6	96	13.0	3.2	2.35	6420	313	11.8	2.60	428	47.1
MC 300*	41.5	52.8	300	92	10.0	13.6	96	13.0	3.2	2.26	6900	345	11.4	2.56	460	49.8
MC 300*	46.2	58.8	300	93	12.2	13.6	96	13.0	3.2	2.22	7350	375	11.2	2.52	490	52.2

Only Bulk Quantity will be Accepted.

Rolling Tolerances

Web	Flange	Sectional weight	Length
Up to 200 mm ± 2.5 mm	Up to 200 mm ± 2 mm	± 2.5 % MTR	For Fixed Length : ± 100 mm
above 200 mm ± 3 mm			

MILD STEEL BEAM :



Nominal Dimensions, Mass and Sectional Properties of Indian Standard Medium Flange Beams

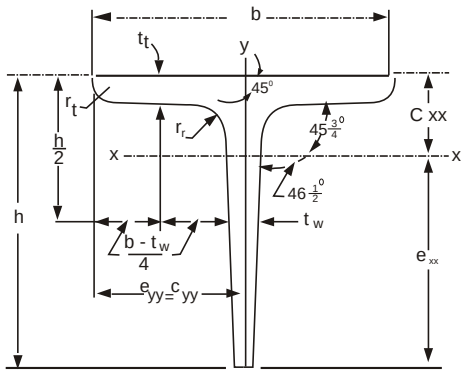
Designation (1)	Mass M (2)	Sectional Area, a (3)	Dimensions							Sectional Properties					
			D (4)	B (5)	t (6)	T (7)	Flange Slope, Max a, deg (8)	R ₁ (9)	R ₂ (10)	I _x (11)	I _y (12)	r _x (13)	r _y (14)	Z _x (15)	Z _y (16)
MB 100	8.9	11.4	100	50	4.7	7.0	98.0	9.0	4.5	183	12.9	4.00	1.05	36.6	5.16
MB 125	13.3	17.0	125	70	5.0	8.0	98.0	9.0	4.5	445	38.5	5.16	1.51	71.2	11.0
MB 150	15.0	19.1	150	75	5.0	8.0	98.0	9.0	4.5	718	46.8	6.13	1.57	95.7	12.5
MB 175	19.6	25.0	175	85	5.8	9.0	98.0	10.0	5.0	1 260	76.7	7.13	1.76	144	18.0
MB 200	24.2	30.8	200	100	5.7	10.0	98.0	11.0	5.5	2 120	137	8.29	2.11	212	27.4
MB 225	31.1	39.7	225	110	6.5	11.8	98.0	12.0	6.0	3 440	218	9.31	2.34	306	39.7
MB 250	37.3	47.5	250	125	6.9	12.5	98.0	13.0	6.5	5 130	335	10.4	2.65	410	53.5
MB 300	46.0	58.6	300	140	7.7	13.1	98.0	14.0	7.0	8 990	486	12.4	2.86	599	69.5

Only Bulk Quantity will be Accepted.

Rolling Tolerances

Web	Flange	Sectional weight	Length
up to 200 mm +3 mm / -2 mm above	up to 200 mm ± 2 mm	± 2.5 % MTR	For Fixed Length : ± 100 mm
200 mm ± 3 mm	100 to 125 mm ± 2.5 mm		
	125 to 150 mm ± 4 mm		

MILD STEEL T - BAR :



Nominal Dimensions, Weight & Geometrical Properties of Indian Standard Tee Bars

Designation	Weight (w)	Sectional Area, (a)	Size (Nominal) (h x b)	Thickness of Web (t _w)	Thickness of Flange (t _f)	Radius at Root (r _t)	Radius at Toe (r _t)	Slope of Flange (D ^h)	Centre of Gravity Position (C _{xx})	Moments of Inertia		Radii of Gyration		Moduli of Section	
										I _{xx}	I _{yy}	r _{xx}	r _{yy}	Z _{xx}	Z _{yy}
(01)	(02) kg/m	(03) mm ²	(04) mm x mm	(05) mm	(06) mm	(07) mm	(08) mm	(09)	(10) mm	(11) 10 ⁶ mm ⁴	(12) 10 ⁶ mm ⁴	(13) mm	(14) mm	(15) mm	(16) mm
Indian Standard Normal Tee Bars															
ISNT 20	1.1	145	20 X 20	4.0	4.0	4.0	3.0	SEE FIGURE	6.0	0.005	0.002	5.8	4.1	0.3	0.2
ISNT 30	1.8	226	30 X 30	4.0	4.0	5.0	3.5		8.2	0.018	0.008	8.9	5.9	0.8	0.5
ISNT 40	3.5	445	40 X 40	6.0	6.0	5.5	4.0		11.4	0.061	0.029	11.8	8.1	2.1	1.5
ISNT 50	4.4	566	50 X 50	6.0	6.0	6.0	4.0		13.5	0.123	0.057	14.7	10.1	3.4	2.3
ISNT 60	5.4	685	60 X 60	6.0	6.0	6.5	4.5		15.6	0.214	0.097	17.7	11.9	4.8	3.2
ISNT 75	10.0	1270	75 X 75	9.0	9.0	8.0	5.5		20.4	0.620	0.292	22.1	15.2	11.4	7.8
ISNT 100	14.9	1900	100 X 100	10.0	10.0	9.0	6.0		26.2	1.64	0.768	29.4	20.1	22.2	15.4
ISNT 150	22.7	2890	150 X 150	10.0	10.0	10.0	7.0		36.1	5.41	2.50	43.3	29.4	47.5	33.4

Only Bulk Quantity will be Accepted.

Rolling Tolerances

Size	Flange	Weight	Length
up to 60mm + 2 mm -1.5 mm 60 to 100 mm +2.5 mm -1.5 mm 100 mm & above + 3 mm - 2.0 mm	Upto & Including 100 mm ± 2 mm Over 100 mm ± 2%	± 2.5% MTR	For Fixed Length : ± 100 mm

MILD STEEL FLAT :



Size in	Average	
	KG / FT	KG / FT
21 X 6	1.00	0.30
25 X 5	0.98	0.30
25 X 6	1.18	0.40
25 X 8	1.57	0.50
25 X 10	1.9	0.60
25 X 12	2.36	0.70
28 X 6	1.30	0.40
30 X 5	1.18	0.40
30 X 6	1.40	0.40
32 X 5	1.26	0.40
32 X 6	1.50	0.50
32 X 8	2.00	0.60
32 X 10	2.50	0.80
32 X 12	3.00	0.90
38 X 3	0.90	0.30
38 X 5	1.50	0.50
38 X 12	3.60	1.10
40 X 5	1.57	0.50
40 X 6	1.90	0.60
40 X 8	2.50	0.80
40 X 10	3.10	1.00
40 X 12	3.77	1.20
40 X 16	5.00	1.50
40 X 20	6.30	1.90
40 X 25	7.85	2.40
45 X 12	4.20	1.30
50 X 4	1.57	2.00
50 X 5	1.96	0.60
50 X 6	2.36	0.70
50 X 8	3.14	1.00
50 X 10	3.90	1.20
50 X 12	4.7	1.40
50 X 16	6.28	1.90
50 X 20	7.85	2.40

Size in	Average	
	KG / FT	KG / FT
50 X 25	9.80	3.00
63 X 6	3.00	0.90
65 X 6	3.06	0.93
65 X 8	4.08	1.20
65 X 10	5.10	1.60
65 X 12	6.10	1.90
65 X 16	8.16	2.50
65 X 20	10.20	3.10
65 X 25	12.80	3.9
75 X 6	3.53	1.10
75 X 8	4.71	1.40
75 X 10	5.89	1.80
75 X 12	7.07	2.10
75 X 16	9.42	2.90
75 X 20	11.80	3.60
75 X 25	14.70	4.50
75 X 32	18.90	4.50
75 X 40	23.60	7.20
75 X 50	29.44	8.97
100 X 6	4.71	1.40
100 X 8	6.28	1.90
100 X 10	7.85	2.40
100 X 12	9.42	2.90
100 X 16	12.56	3.80
100 X 20	15.70	4.80
100 X 25	19.60	6.00
100 X 32	25.12	7.66
100 X 50	39.25	11.96
125 X 6	5.90	1.80
125 X 8	7.90	2.40
125 X 10	9.80	3.00
125 X 12	11.80	3.60
125 X 16	15.70	4.80
125 X 20	19.60	6.00

Size in	Average	
	KG / FT	KG / FT
125 X 25	24.50	7.50
125 X 32	31.40	9.57
125 X 40	39.25	11.96
130 X 12	12.25	3.73
150 X 6	7.07	2.20
150 X 8	9.42	2.90
150 X 10	11.80	3.60
150 X 12	14.10	4.30
150 X 16	18.80	5.70
150 X 20	23.60	7.20
150 X 25	29.40	8.90
150 X 32	37.68	11.48
150 X 40	47.10	14.36

Only Bulk Quantity will be Accepted.

Rolling Tolerances

Width	Thickness	Sectional weight	Length
up to 50 mm: ± 1 mm	up to 12 mm: ± 0.5 mm	Up to 3 mm thick: +5/-3%	For fixed length : ± 100 mm
50 mm to 75 mm: ± 1.5 mm	over 12 mm: 4% and	Over 3 mm : $\pm 5\%$	
75 mm to 100 mm: ± 2 mm	max not exceeding 1.5 mm		
100 mm and above $\pm 2\%$			
and maximum not exceeding 6 mm			

CHEMICAL & MECHANICAL PROPERTIES :

IS 2062 Standard (Rev-2006):

This grade is for "Steel for general structural purposes".

Chemical Composition

Chemistry	Unit	IS 2062 , Fe 410W A
Carbon	%	0.23 Max
Manganese	%	1.50 Max
Sulphures	%	0.045 Max
Phosphorus	%	0.045 Max
Carbon Equivalent	%	0.42 Max

Mechanical Properties

Mechanical Properties	Unit	Dia/Thickness (mm)	IS 2062 , Fe 410W A
Yield Stress	N/mm ²	<20	250 min
		20-40	240 min
		> 40	230 min
Tensile Strength	N/mm ²		410 min
Elongation	%	23 min	24 min

INFRASTRUCTURE :

- 16" (Automatic) Rolling Mill.
- 12" (Semi -Automatic) Rolling Mill.
- In house Laboratory for chemical Analysis & Physical Testing.
- Computerized Weigh Bridges (60 MT).
- Fully Mechanized Material Handling Facilities.
- Up to 150 MT production Capacity per Day.
- Heavy Straitening Machine.
- Applied for B. I. S License.
- Work Shop Capacity to develop any customizes designs in five working days.
- Double Drive Furnace of 25 Mtr.
- Cooling Platform of 90 Ft.



APPLICATIONS :

- Transmission Line Tower.
- Constructions.
- Telecom Tower.
- Sub-Station Structure.
- Microwave Tower.
- Factory & Warehousing Shed.
- Electrification Projects, Poles & Earthing.
- E. O. T. Cranes.
- Materials Handling Equipments.
- Ship building.
- Windmills & it's accessories.
- Railway components.
- Elevators and Escalators.
- Bus Bodies & Tailors Manufacturers.
- Fabrication for general purpose.



CLIENTS LIST :

- Jaguar overseas - D. P. Jindal Group.
- Maharashtra Power Generation Company Ltd.
- Hindalco Industries Ltd. - Aditya Birla Group.
- Maharashtra Power Transmission Structures Pvt. Ltd.
- Uttam Galva Steel Pvt. Ltd.
- Karamtara Engineering Pvt. Ltd.
- A V Cam Corporation.



Apart from these premier buyers, We are supplying regularly & satisfactory to many reputed companies all over India, We always endeavor sincerely to maintain highest standards of unbeatable quality with prompt & timely delivery.



MANUFACTURING FACILITIES

MAHARASHTRA UNIT :

BHARTIYA ALLOYS & STEELCAST LTD.

Plot No. 180, 181, 182 & 274, Bhiwandi-Wada Rd,

(Met Naka), Village: Ghonsai

Taluka : Wada, Dist : Thane

Maharashtra (INDIA)

Pin : 421312

Tel : +91-2526 222222

Mob : +91-9869203637

Fax : +91-2526-222221

Email : bascl@bhartiyaispat.com

RAJASTHAN UNIT:

RANAKPUR ISPAT LTD.

10/11 Industrial Area,

Kenpura Road,

Dist : Pali, Station : Rani

Rajasthan (INDIA)

Pin : 306115

Tel : +91-2934 222006

Mob : +91-9414124661

Fax : +91-2934-222911

Email : ril@bhartiyaispat.com

Email : info@bhartiyaispat.com Website : www.bhartiyaispat.com