

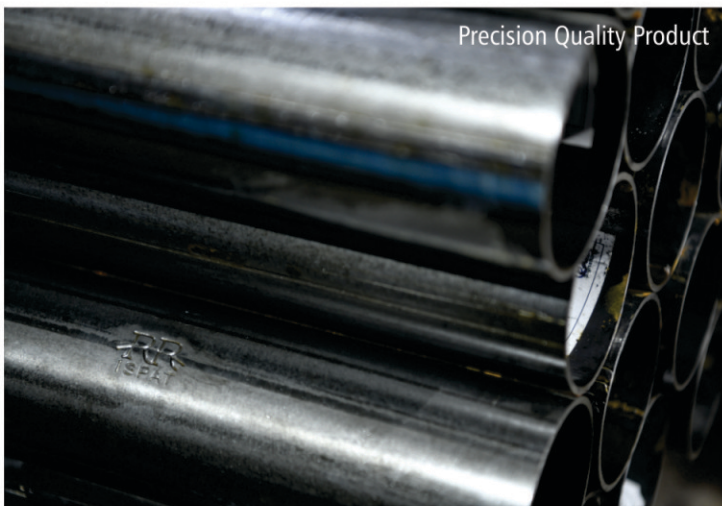
Pipe Mill



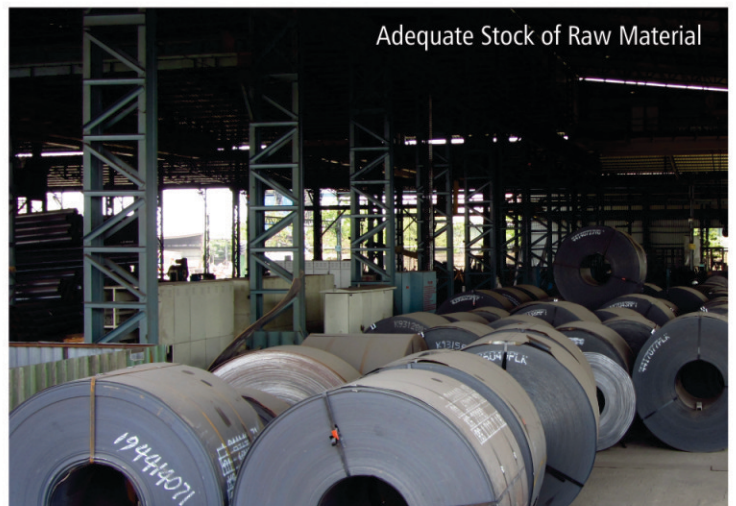
In line with the company's philosophy to expand its product range to offer a complete product basket to the customers, RR Ispat offers M.S. Pipe from its first tube mill which was commissioned in 2018 with an installed capacity of over 36000 MT per annum.

We manufacture structural tubes confirming to IS:1161, IS:3601 and IS:4923 standards for round, square and rectangular sections respectively. These tubes can be manufactured up to a maximum size of 150x150mm for squares, 240x120mm for rectangular and 200mm NB for round sections. The thickness can vary from 1.6mm to 6.0mm. We have recently entered into retail space providing consumers full range of products within specified time frame.

Adding to product portfolio to cater the changing need of customers, we are entering into production of GI Tubes with same range and thickness confirming to IS:1239 and IS:3589.



Precision Quality Product



Adequate Stock of Raw Material

All Images Source : Pipe Mill Division, RR Ispat

MANUFACTURING AND TESTING FLOW DIAGRAM ERW (ELECTRIC RESISTANCE WELDED) BLACK

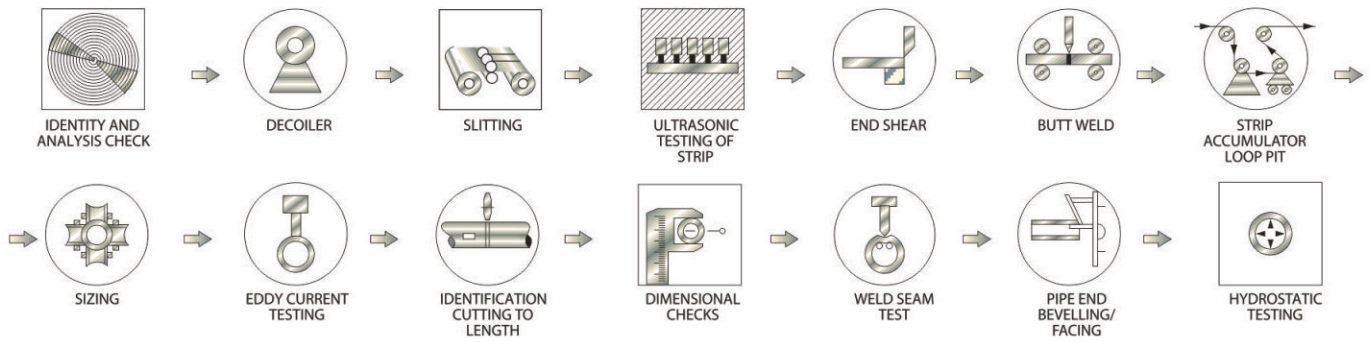


Image Source : Pipe Mill Division, RR Ispat

HOLLOW STEEL SECTIONS FOR STRUCTURAL USE

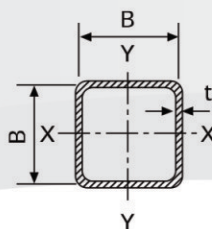
SQUARE HOLLOW SECTION (SHS)

Conforming to IS : 4923 – 1997

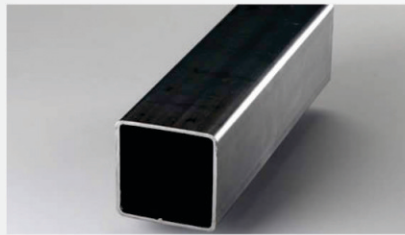
SHS (DxB)*	THICKNESS	UNIT WEIGHT	
		Kg/Meter	Meter/Ton
72 X 72	3.20	6.71	149
	4.00	8.22	122
	5.00	10.01	100
91.5 X 91.5	3.60	9.67	103
	4.50	11.88	84
	5.40	14.01	71
113.5 X 113.5	4.00	13.43	74
	5.00	16.53	60
	6.00	19.53	51
132 X 132	4.00	15.75	63
	5.00	19.43	51
	6.00	23.01	43
150 X 150	5.00	22.26	45
	6.00	26.40	38
	7.00	30.44	33

General technical specification and tolerances:

Spec :	IS:4923:1997
Length:	6.0mtrs. +/-6.0mm customized length ranging from 4 mtrs. to 8mtrs. May be supplied.
Thickness:	For all sizes: +/- 10.0%
Outer Dimensions:	1% with a Min. of 0.5mm
Corner Squareness:	90° +/- 2°
Corner Radii:	Max. 3x (thickness of the section)
Weight:	on individual length : +10%, -8% on lots of 10 MT: +/- 7.5%
Straightness:	Min1:600th of any length measured along the center line (mill straightened condition) unless otherwise specifically arranged
Twist Tolerance :	Max. 2mm: +:0.5mm /1m length, the measured relative vertical shift of any adjacent corner of the measured by keeping one side on flat surface.
End Finish:	Plain Ended- Mechanically sheared, end faced.
Surface Finish:	Black without any surface treatment of oiling or varnishing.



Specification:
IS : 4923



HOLLOW STEEL SECTIONS FOR STRUCTURAL USE

RECTANGULAR HOLLOW SECTION (RHS)

Conforming to IS : 4923 – 1997

RHS	THICKNESS	UNIT WEIGHT	
		Kg/Meter	Meter/Ton
96 X 48	3.20	6.71	149
	4.00	8.22	122
	5.00	10.01	100
100 X 50	3.20	7.01	143
	4.00	8.59	116
	5.40	11.21	89
122 X 61	6.00	12.27	81
	3.60	9.67	103
	4.50	11.88	84
150 X 75	5.40	14.01	71
	3.60	12.05	83
	4.50	14.85	67
150 X 100	5.40	17.57	57
	3.60	13.46	74
	4.50	16.62	60
200 X 100	5.40	19.69	51
	4.50	20.15	50
	6.00	26.40	38
	7.00	30.44	33

OTHER ALLOWABLE STRESS VALUES (in Mpa)

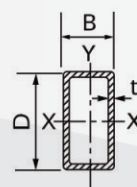
Steel Grade	Min. Yield Stress	Min. UTS
Yst 210	210	330
Yst 240	240	410
Yst 310	310	450

Note: Min.% Elongation: 10% for GR. Yst 310, 15% for GR.

Yst 240 & 20% for Yst 210

e: The sizes which are not covered in the Table can also be supplied as per customer requirement.

* D : Depth
B : Breadth



Specification:
IS : 4923

CARBON STEEL TUBES FOR MECHANICAL & GENERAL ENGINEERING
Conforming to IS: 3601 - 2006

Outside Diameter	Thickness	Mass	Area of Cross Section	Moment of Inertia	Modules of Sections	Radius of Gyration
mm	mm	Kg/m	cm ⁴	cm ⁴	cm ³	cm
88.90	2.90	6.15	7.83	72.47	16.30	3.04
	3.20	6.76	8.62	79.21	17.80	3.03
	4.00	8.38	10.70	96.34	21.70	3.00
	5.00	10.30	13.20	116.40	26.20	2.97
	5.40	11.10	14.00	123.80	27.80	2.97
	5.60	11.50	14.65	127.64	28.72	2.95
101.60	3.60	8.70	11.10	133.20	26.20	3.47
	4.00	9.63	12.30	146.20	28.80	3.45
	5.00	11.90	15.20	177.50	34.90	3.42
114.30	3.20	8.77	11.16	172.33	30.15	3.93
	3.60	9.83	12.50	192.00	33.60	3.92
	4.50	12.20	15.50	234.30	41.00	3.89
	5.40	14.50	18.50	274.50	48.00	3.86
	6.30	16.80	21.20	315.00	55.10	3.83
139.70	3.60	12.10	15.38	356.36	51.02	4.81
	4.00	13.40	17.04	392.57	56.20	4.80
	4.50	15.00	19.10	437.20	62.60	4.78
	5.00	16.60	21.20	480.50	68.80	4.77
	5.40	17.90	22.80	514.50	73.70	4.75
	6.30	20.70	26.30	591.00	84.70	4.73
152.40	4.50	16.40	20.90	572.20	75.10	5.23
	5.00	18.20	23.20	629.50	82.60	5.21
	5.40	19.60	24.90	674.50	88.50	5.20
165.10	4.50	17.80	22.70	732.60	88.70	5.68
	5.00	19.70	25.10	806.60	97.70	5.66
	5.40	21.20	27.10	864.70	105.00	5.65
	6.30	24.80	31.40	992.00	120.00	5.63
168.30	4.00	16.20	20.64	696.87	82.81	5.81
	4.50	18.20	23.20	777.20	98.40	5.79
	5.00	20.10	25.70	855.80	102.00	5.78
	5.40	21.70	27.60	917.70	109.00	5.76
	6.30	25.20	32.10	1053.00	125.00	5.73
	7.10	28.20	35.94	1169.66	139.00	5.70
	8.00	31.60	39.70	1288.00	153.00	5.69
193.70	5.00	23.30	29.60	1320.00	136.00	6.67
	5.40	25.10	31.90	1417.00	146.00	6.66
	5.90	27.30	34.80	1536.00	159.00	6.64
	6.30	29.10	37.00	1600.00	165.00	6.60
	8.00	36.60	46.30	2004.00	207.00	6.57
219.10	4.50	23.80	30.32	1746.18	159.40	7.59
	5.00	26.40	33.60	1928.00	176.00	7.57
	5.60	29.50	37.60	2142.00	195.00	7.56
	6.30	33.10	42.00	2404.00	219.00	7.54
	8.00	41.60	52.00	1940.00	268.00	7.52

PHYSICAL PROPERTIES

Grade	Y.S.(Min.) (Mpa)	T.S.(Min) (Mpa)	% age Elongation (Min)	
			As Welded (less than or equal to 33.7 mm OD)	As Welded (more than or equal to 33.7mm OD)
WT160	160	310	15	22
WT210	210	330	12	20
WT240	240	410	10	15
WT310	310	450	6	10

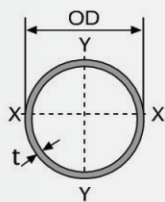
TOLERANCE

Outside Diameter upto 25.40 mm	± 0.15mm
Outside Diameter upto & including 51 mm	± 0.18mm
Over 51 mm to 76.10 mm	± 0.25mm
Above 76.10 to 88.90 mm	± 0.31mm
Above 88.90 to 101.60 mm	± 0.36mm
Above 101.60 to 114.3mm	± 0.43mm
Above 114.30 to 152.40 mm	± 0.58mm
Above 152.40 to 168.30 mm	± 0.65mm
Above 168.30	± 0.75mm

Note: 1) Any OD & Thickness not covered in this table may be supplied as per customer requirement
2) The Tolerance of thickness excluding the weld shall be ± 10 %

STEEL PIPES FOR STRUCTURAL PURPOSE

Confirming to IS : 1161 - 2014



Specification:
IS : 1161

Nominal Size NB		Outside Diameter D	Thickness T		Nominal Weight Black Tubes Plain End	
MM	INCH		MM	SWG	Kg/Meter	Meter/Ton
80	(3")	88.90	3.20	10	6.720	149
			4.00	08	8.360	120
			4.80	06	9.990	101
100	(4")	114.30	3.60	09	9.750	102
			4.50	07	12.200	82
			5.40	05	14.500	70
125	(5")	139.70	4.50	07	15.000	66.5
			4.80	06	15.900	63
			5.40	05	17.900	56
150	(6")	165.10	4.50	07	17.800	56
			4.80	05	18.900	53
			5.40	05	21.300	47
150	(6")	168.30	4.50	07	18.200	55
			4.80	06	19.400	51.5
			5.40	05	21.700	46
175	(7")	193.70	4.80	06	22.400	45
			5.40	05	25.100	40
			5.90	04	27.300	37
200	(8")	219.10	4.80	06	25.400	39
			5.60	05	29.500	34
			5.90	04	31.000	32

Tolerance

Outside diameter:
Over 88.9mm +/- 1%

Thickness

+ Not Limited - 10%

Chemical Properties

C	0.20% Max
Mn	1.3% Max
P	0.04% Max
S	0.04% Max

Physical Properties

Grade	YS (Min.) Mpa	TS (Min.) Mpa	% age (Min.) Elong.
YST-210	210	330	20
YST-240	240	410	17
YST-310	310	450	14

Weight

Single tubes (light series) +10%
-8%

Single tubes (medium & heavy series) +/- 10%

Weight Truck Load

For lot of 10 Ton Min.

Light Series +/- 5%

Medium & Heavy series +/- 7.5%

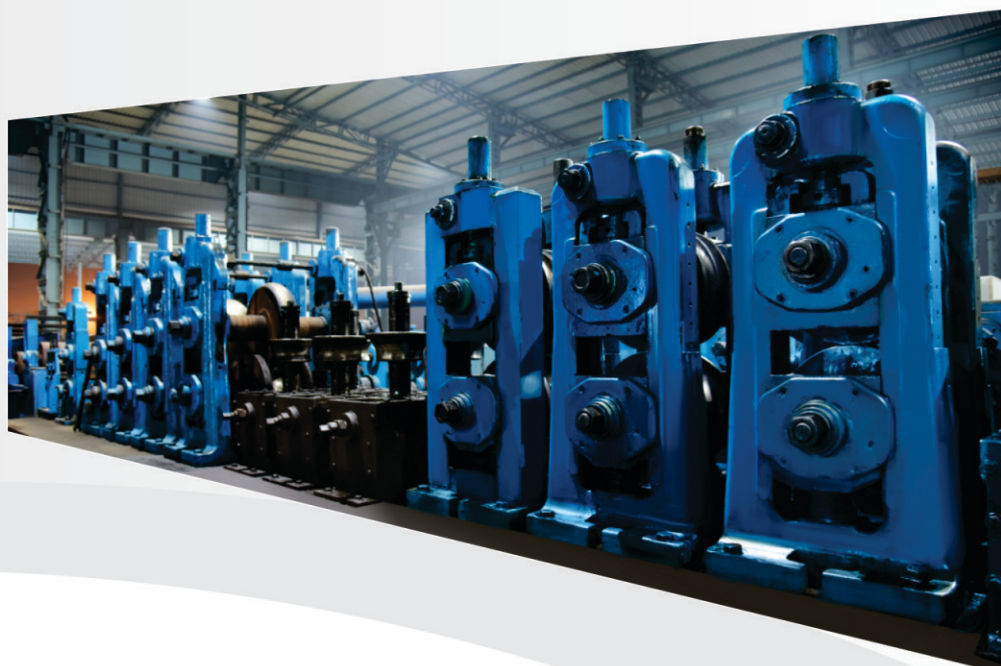


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