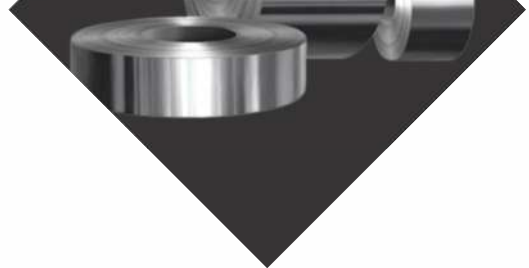


GRAVITY PIPES

Chale long life...



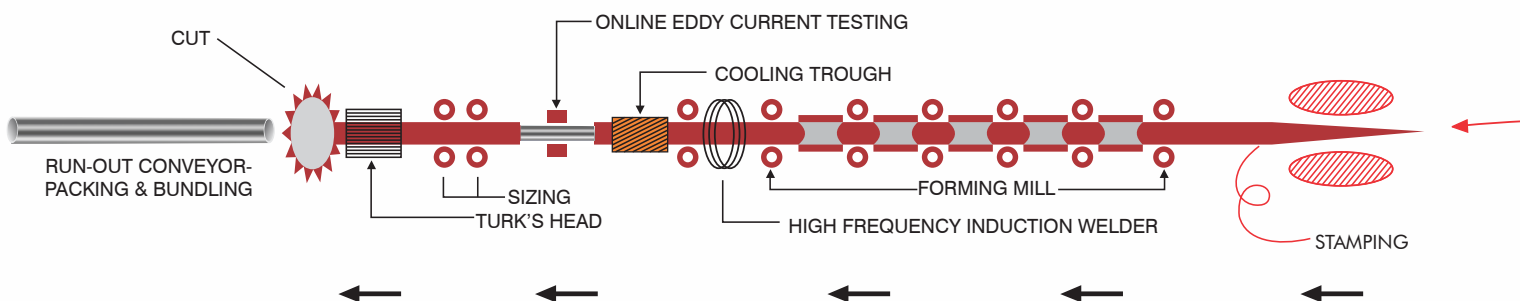
www.gravitypipes.in

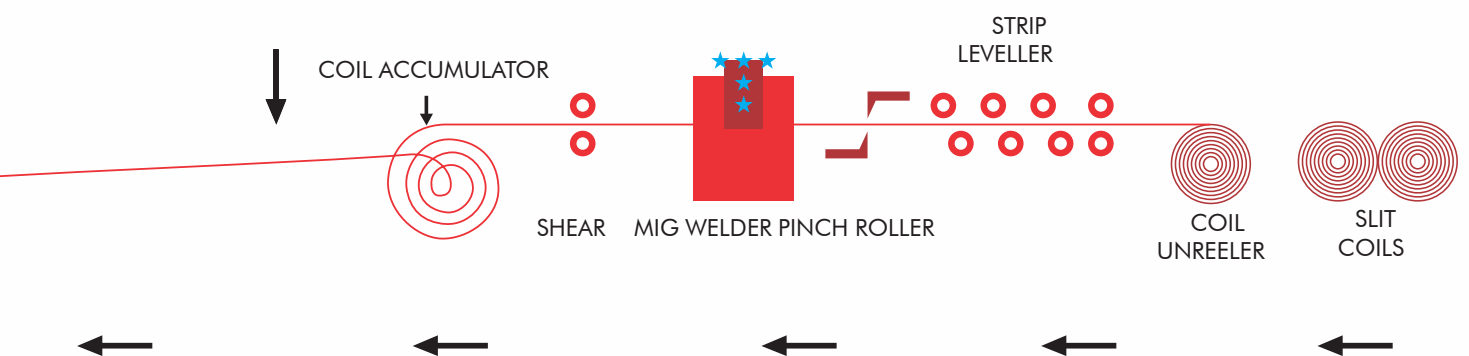
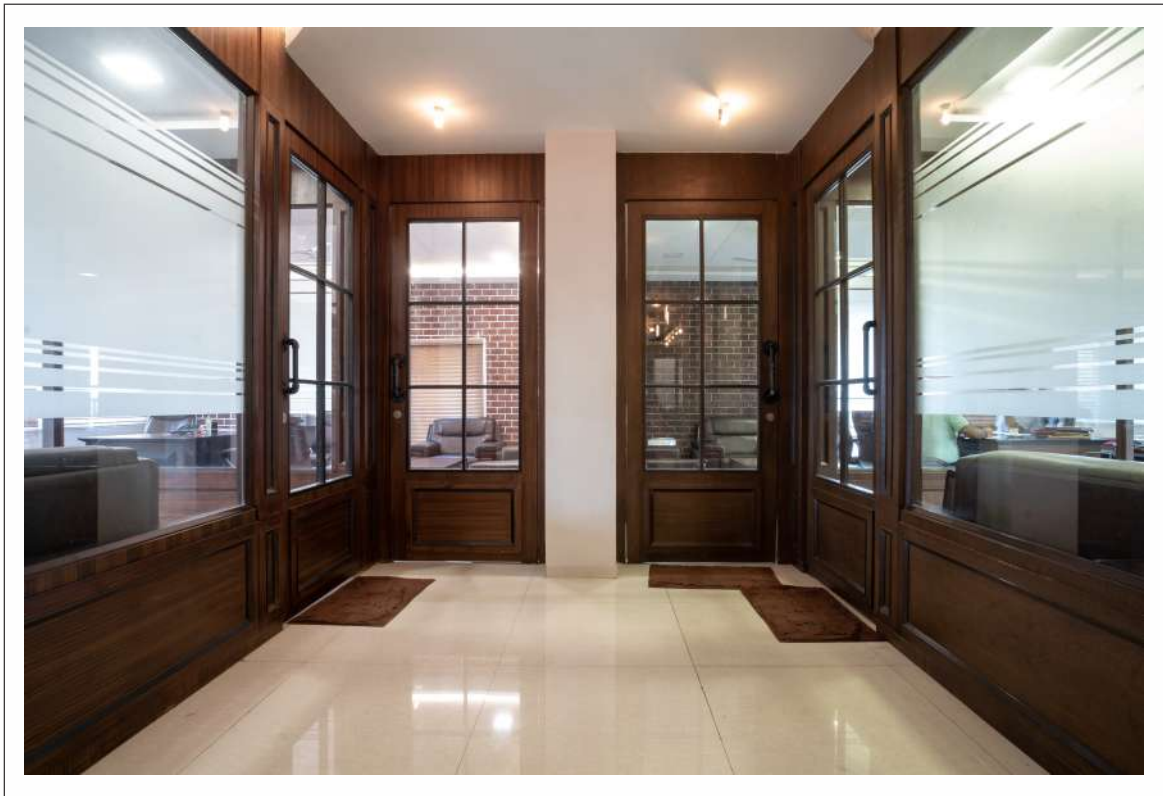


We are one of the leading partners in changing the face of Indian Infrastructure where every product we produce is of highest quality.

Wonder how our products create spectacularly long lasting structures?

Gravity Pipes takes an engineering approach to every product produced using latest technology that ensures quality, strength and cost efficiency in the long run.





INTRODUCTION

Gravity Pipes, an ISO 9001:2015 certified company is a leading manufacturer & exporter of all types of M.S Pipes & Tubes, Narrow width HR coil/Skelp. Armed with the latest technology, the company is constantly endeavoring to venture into new product segments to cater to the manufacturing needs of its clientele.

Gravity Pipes has a state-of-art manufacturing facility located at Urla Industrial sector, Raipur, Chhattisgarh, India. The company is engaged in the production of various types of ISI marked pipes and houses a complete range of M.S Pipes from 15mm up to 100mm with a total production capacity of 3,60,000 Tons per Annum.

The company, promoted by its tech savvy entrepreneurs and supported by a dedicated team of qualified professionals is committed to achieve the highest standard of quality product and excellence. With its fully equipped in-house testing laboratory, the products pass through a series of rigorous tests in compliance with various quality standards.

Today, we are one of India's fast emerging manufacturers and suppliers of Black Steel tubes, Hollow section and Narrow width HR coil confirming with the highest National and International standards.

Major Manufacturing Operations

- | | |
|----------------------------------|-----------------------|
| ■ ERW Black Steel Tubes | IS: 1239(Part-1)/2004 |
| ■ Structural Steel Tubes | IS: 1161/2014 |
| ■ Black & Galvanized Steel Tubes | IS: 3601/2006 |
| ■ Hollow Sections | IS: 4923/2017 |
| ■ Narrow Width HR coil/Skelp | IS: 10748/2004 |

EXPANSION PLANS

Gravity group has ambitious plans for expansion & diversification of its operations. The group is looking at various ways to expand vertically within the steel sector while enriching the lives of those associated with it.

Near term expansion plans:

- Sponge Iron manufacturing unit
- Captive Power Plant
- Ferro Alloy production
- Primary medical support facility in Tilda, Chhattisgarh
- Numerous plantation drives

ACTIVITIES



Safety Drill

Safety Training & Awareness Programs are periodically conducted at our facilities enabling the workforce to learn new skills and upgrade themselves with the latest safety norms demanded by the industry.



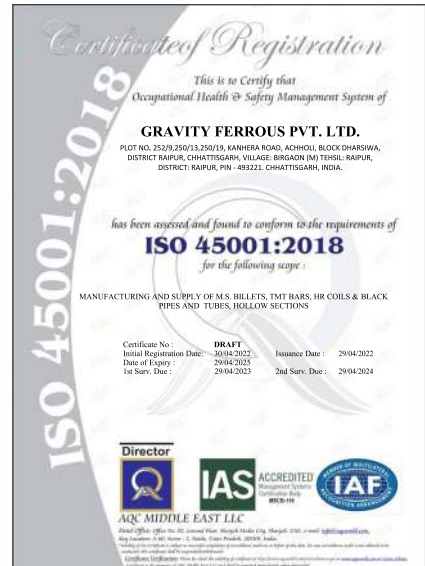
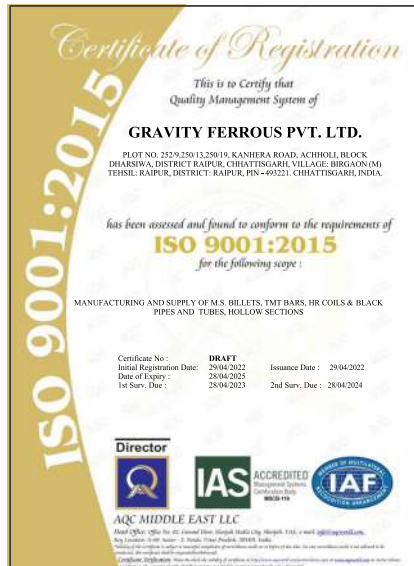
Conserving nature is an important part of our moral and social responsibility towards the society at large. We take great pride in contributing whole heartedly towards a greener, cleaner & sustainable future through various plantation & cleanliness drives.

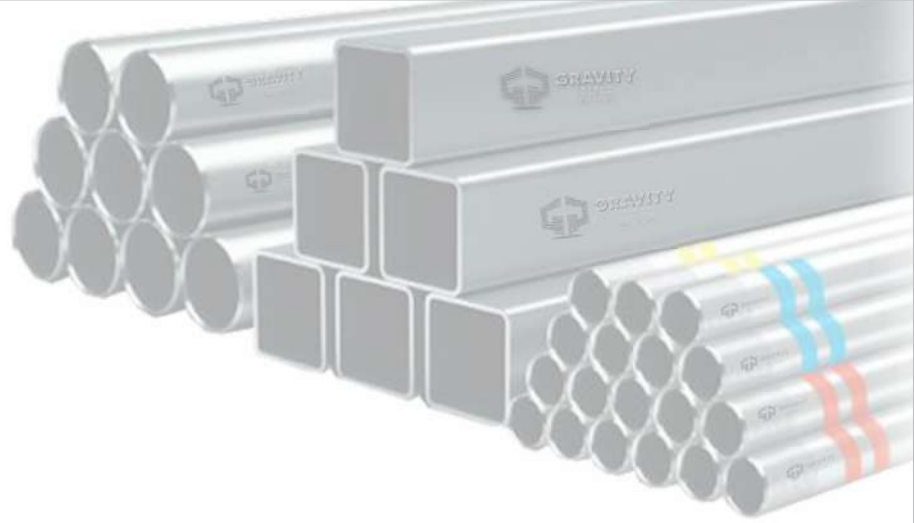


Plantation Drive



Customer Satisfaction is Our Motto





PRODUCT QUALITY

Gravity Pipes is an ISO -9001:2015 certified company with a stringent quality policy and a commitment to achieve highest customer satisfaction levels. We endeavor to provide our customers with exceptional quality products and after sales service support system.

Our focus is to achieve new frontiers by maximising customer satisfaction, improving value based ethics, incorporating transparency in working and benchmarking corporate governance.

The company has a fully equipped Quality Control Laboratory with the latest test equipments to keep a check on both the raw material used and the quality of the finished products. These include a Universal Testing Machine (to check the tensile strength and conduct flattening test), a Vickers hardness tester, a Chemical analyses lab and a Hydraulic testing machine (for pressure testing) with a Bend test machine setup.

Our exhaustive testing laboratory enables us to manufacture products confirming with the highest International standards namely BIS, DIN, ASTM and JIS. We also have the capability to customize the products as per customer specifications.

Gravity group believes in the 'Zero Error' production concept driven by quality and timely execution of its projects, hence enjoys an excellent reputation with its clients and peers alike.

OUR PRODUCTS

(15 mm-100 mm) confirming to IS: 1239(Pt-1)/2004

Applications:
Water supply
Oil and Gas
Air and steam
Irrigation lines
Tube Wells
General engineering

ERW Black Steel Tubes



Confirming to IS:4923/97

Applications:
Industrial unit
Cabins
Railings
Vehicles Bodies

Square Hollow sections



Confirming to IS:4923/97

Applications:
Industrial unit
Cabins
Railings
Vehicles Bodies

Rectangular Hollow sections



(15 mm-110 mm) confirming to IS: 1161(Pt-1)/2004

Applications:
Scaffoldings
Column and Trusses
Electric Poles
Railings
General Engineering

Structural Steel Tubes



Hot Dipped Galvanized Steel Tubes

Confirming to IS:3601/2006

Applications:
Fencing
Green House
Cabins
Milk Booth

(150 mm-550 mm) Confirming to IS:10748/2004

Applications:
Constructions
Cabins
Cycle and Automobiles
General Engineering

HR Coil



STEEL PIPES FOR STRUCTURAL PURPOSE

Confirming to IS : 1161-2014

Nominal Size NB		Outside Diameter D	Thickness T		Nominal Weight Black Tubes Plain End	
MM	INCH		MM	SWG	Kg/Meter	Meter/Ton
15	(1/2")	21.30	2.00	14	0.947	1056
			2.60	12	1.210	826
			3.20	10	1.440	694
20	(3/4")	26.90	2.30	13	1.380	725
			2.60	12	1.560	641
			3.20	10	1.870	535
25	(1")	33.70	2.60	12	1.980	505
			3.20	10	2.410	415
			4.00	08	2.930	341
32	(1 1/4")	42.40	2.60	12	2.540	394
			3.20	10	3.100	322
			4.00	08	3.790	264
40	(1 1/2")	48.30	2.90	11	3.230	310
			3.20	10	3.560	281
			4.00	08	4.370	229
50	(2")	60.30	2.90	11	4.080	245
			3.60	09	5.030	199
			4.50	07	6.190	162
65	(2 1/2")	76.10	3.20	10	5.710	175
			3.60	09	6.420	156
			4.50	07	7.930	126
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
110		127.00	4.50	07	13.600	74
			4.80	06	14.500	69
			5.40	05	16.200	62
125	(5")	139.70	4.50	07	15.000	66.5
			4.80	06	15.900	63
			5.40	05	17.900	56
135		152.40	4.50	07	16.400	61
			4.80	06	17.500	57
			5.40	05	19.600	51
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
			6.30	03	25.200	40

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

Note: For tubes upto size 25mm NB including Elongation of 12% shall be permissible.

Weight

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

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

Weight Truck Load

For lot of 10 Ton Min.

Light Series +/- 5%

medium & heavy series +/- 7.5%

Tolerance

Outside diameter:

upto and including 48.3mm + 0.4mm
- 0.8mm

Over 48.3mm +/- 1%

Thickness

+ Not Limited - 10%



STEEL TUBES CONFIRMING TO DIN 2440

Technical Specification Type - B

Nominal Size	Size In	OD MM	Wall Thickness	Outside Diameter		Mass PE Tube	Mass Sockted	Socket Confirm DIN 2986	
				Min(MM)	Max (MM)			OD MM Min	Length MM Min
15	1/2"	21.3	2.65	21.0	21.8	1.22	1.23	26.4	34.0
20	3/4"	26.9	2.65	26.5	27.3	1.58	1.59	31.8	36.0
25	1"	33.7	3.25	33.3	34.2	2.44	2.46	39.5	43.0
32	1 1/4"	42.4	3.25	42.0	42.9	3.14	3.17	48.3	48.0
40	1 1/2"	48.3	3.25	47.9	48.8	3.61	3.65	54.5	48.0
50	2"	60.3	3.65	59.7	60.8	5.10	5.17	66.3	56.0
65	2 1/2"	76.3	3.65	75.3	76.6	6.51	6.63	82.0	65.0
80	3"	88.9	4.05	88.0	89.5	8.47	8.64	95.0	71.0
100	4"	114.3	4.50	113.1	115.0	12.10	14.40	120.0	83.0
125	5"	139.7	4.85	138.5	140.8	16.20	16.70	147.0	92.0
150	6"	165.1	4.85	163.9	166.5	19.20	19.80	174.0	92.0

Material
St. 33-2 Confirming to DIN 17100
Galvanizing in accordance with DIN 2444

Tolerances
Wall Thickness 12.5%
Mass
For Single tube +-10%
For ten ton lot +- 7.5%

Pipes Confirming to ASTM- 53 GR A & B

DN	Outside Diameter	Wall Thicknes	Mass of Plain end Pipes	Test Pressure	
				Grade A	Grade B
	MM	MM	Kg/Mtr	Mpa	Mpa
15	21.3	2.27	1.27	4.8	4.8
20	26.7	2.87	1.69	4.8	4.8
25	33.4	3.38	2.5	4.8	4.8
32	42.2	3.56	3.39	8.3	9.0
40	48.3	3.68	4.05	8.3	9.0
50	60.3	3.91	5.44	15.9	17.2
65	73.0	5.16	8.63	17.2	17.2
80	88.9	5.49	11.29	15.3	17.2
90	101.6	5.74	13.57	14.0	16.3
100	114.3	6.02	16.07	13.1	15.2
125	114.3	6.55	21.77	11.5	13.4
150	168.3	7.11	28.26	10.5	12.3
200	219.1	8.18	42.55	9.2	10.8

Tolerances

Outside Pipe size up to & DN 40 +-0.4mm
Diameters Pipe Size DN or larger +-1%

Thickness -12.5% (max)

Weight +-10%

Galvanizing min. 490g/sq mtr

Average 550 g/sq mtr



STEEL TUBES FOR MECHANICAL AND GENERAL ENGINEERING PURPOSES

TECHNICAL DATA OF BLACK & GALVANISED PIPES SPECIFICATION IS: 3601: 2006

NB (MM)	OUTSIDE DIAMETER (MM)	WALL THICKNESS (MM)	NOMINAL WEIGHT GALVANISED & BLACK TUBES	
			PLAIN END	
			KG/M	MTR.TON
15	21.3	1.8	0.866	1155
		2.0	0.952	1053
		2.6	1.20	833
		3.2	1.43	699
		4.0	1.71	585
20	26.9	1.8	1.11	901
		2.0	1.23	813
		2.3	1.40	714
		2.6	1.56	641
		3.2	1.87	535
25	33.7	2.0	1.56	641
		2.3	1.78	562
		2.6	1.99	503
		3.2	2.41	415
		4.0	2.93	341
32	42.4	2.3	2.27	441
		2.6	2.55	392
		3.2	3.09	324
		3.6	3.44	291
		4.0	3.79	264
40	48.3	2.3	2.61	383
		2.6	2.93	341
		2.9	3.25	308
		3.2	3.56	281
		3.6	3.97	252
50	60.3	2.3	3.29	304
		2.6	3.70	270
		2.9	4.11	243
		3.2	4.51	222
		3.6	5.03	199
		4.0	5.55	180
		4.5	6.19	162

NB (MM)	OUTSIDE DIAMETER (MM)	WALL THICKNESS (MM)	NOMINAL WEIGHT GALVANISED & BLACK TUBES	
			PLAIN END	
			KG/M	MTR.TON
65	76.1	2.6	5.24	191
		2.9	5.75	174
		3.2	6.44	155
		3.6	7.11	141
		4.5	7.95	126
80	88.9	2.9	6.15	163
		3.2	6.76	148
		4.0	8.38	119
		5.0	10.30	97
		3.6	8.70	115
90	101.6	4.0	9.63	104
		5.0	11.90	84
		3.2	8.77	114
		3.6	9.83	102
		4.5	12.2	82
100	114.3	5.4	14.5	69
		6.3	16.8	60

GRADE	Y.S (min)	T.S (min.)	%Elongation (min.)	
			<33.7mm OD	>33.7mm OD
WT 1600	160	310	15	22
WT 210	210	330	12	20
WT 240	240	410	10	15
WT 310	310	450	6	10



HOLLOW STEEL SECTIONS FOR STRUCTURAL USE SQUARE HOLLOW SECTION (SHS)

Confirming to IS : 4923-1997

SHS (DxB)*	THICKNESS	UNIT WEIGHT	
		Kg/Meter	Meter/Ton
15 X 15	1.20	0.53	1900
	1.60	0.69	1455
	2.00	0.84	1190
19 X 19	2.00	0.99	1010
	2.60	1.20	833
	2.90	1.30	769
25 X 25	2.00	1.36	735
	2.60	1.69	592
	3.20	1.98	505
32 X 32	2.60	2.26	442
	3.20	2.69	372
	4.00	3.19	313
38 X 38	2.00	2.18	459
	2.60	2.75	364
	3.20	3.29	304
	4.00	3.95	253
40 X 40	2.00	2.31	433
	2.60	2.92	342
	3.20	3.49	287
	4.00	4.20	238
49.5 X 49.5	2.60	3.69	271
	3.20	4.45	225
	4.50	5.95	168
60 X 60	2.60	4.55	220
	3.20	5.50	182
	3.50	5.96	168
	4.50	7.43	135
72 X 72	3.20	6.71	149
	4.00	8.22	122
	5.00	10.01	100

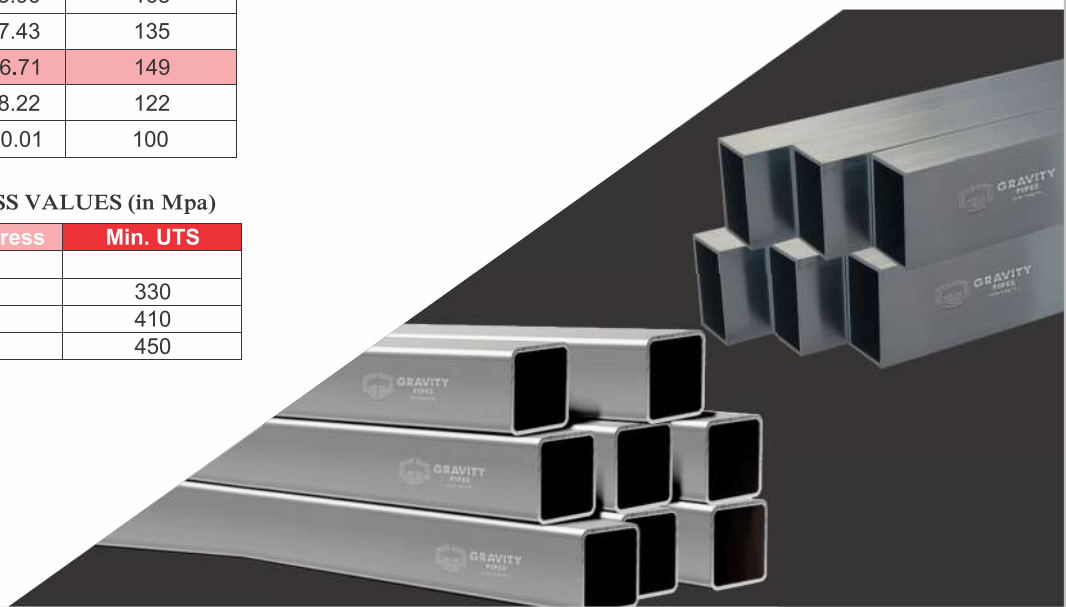
SHS (DxB)*	THICKNESS	UNIT WEIGHT	
		Kg/Meter	Meter/Ton
80 X 80	3.20	7.51	133
	4.00	9.22	108
	5.00	11.27	89
	6.00	13.88	71
91.5 X 91.5	3.60	9.67	103
	4.50	11.88	84
	5.40	14.01	71
100 X 100	3.60	10.64	94
	4.50	13.08	76
	6.00	16.98	59
113.5 X 113.5	4.00	13.43	74
	5.00	16.53	60
	6.00	19.53	51
125 X 125	4.00	14.87	67
	5.00	18.33	55
	6.00	21.69	46
132 X 132	4.00	15.75	63
	5.00	19.43	51
	6.00	23.01	43

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 (Clause – 8.1)

* D : Depth
B : Breadth

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



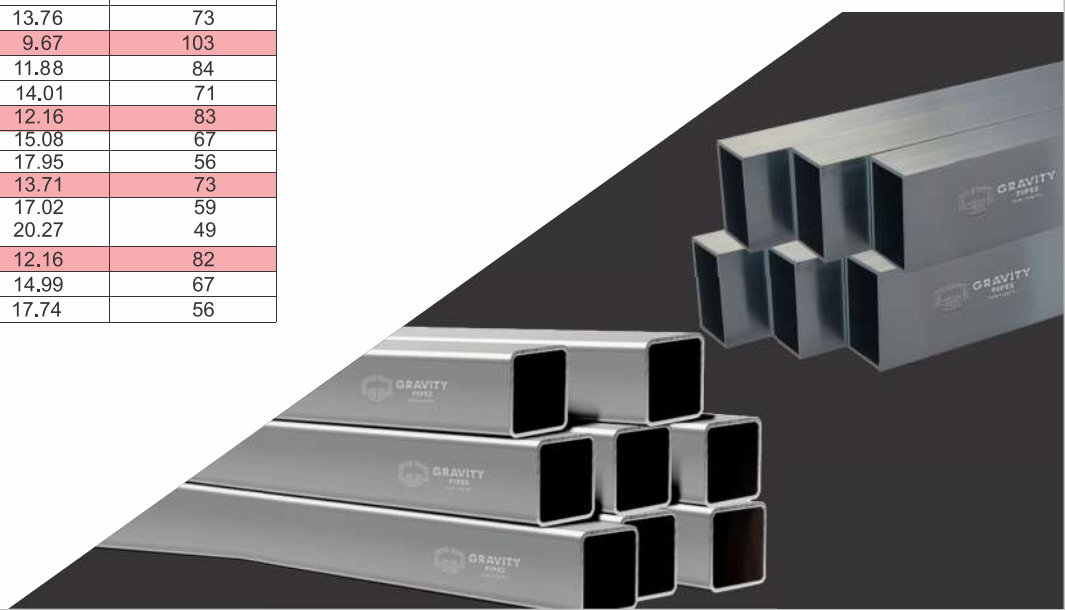
HOLLOW STEEL SECTIONS FOR STRUCTURAL USE RECTANGULAR HOLLOW SECTION (RHS)

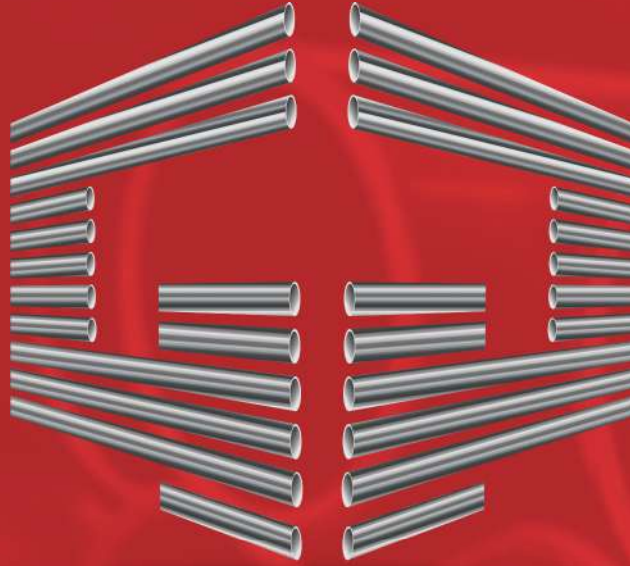
Confirming to IS : 4923-1997

RHS MM	THICKNESS MM	UNIT WEIGHT	
		Kg/Meter	Meter/Ton
40 X 20	2.00	1.68	595
	2.60	2.10	476
	3.20	2.49	402
40 X 25	1.60	1.57	640
	2.00	1.94	518
	2.50	2.39	419
50 X 25	2.00	2.15	465
	2.60	2.71	369
	3.20	3.24	309
	4.00	3.88	258
50 X 30	2.00	2.41	418
	2.50	2.98	337
	2.90	3.43	293
50 X 40	2.00	2.88	370
	2.50	3.56	297
	2.90	4.11	260
60 X 40	2.60	3.73	268
	3.20	4.50	222
	4.50	6.02	166
66 X 33	2.60	3.69	271
	3.20	4.45	225
	4.50	5.95	168
75 X 25	2.60	3.73	268
	3.20	4.50	222
	4.50	6.02	166
80 X 40	2.90	5.03	199
	3.50	5.96	168
	4.50	7.43	135
96 X 48	3.20	6.71	149
	4.00	8.22	122
	5.00	10.01	100
90 X 60	3.20	7.01	143
	4.00	8.59	116
	5.00	10.48	95
100 X 50	3.20	7.01	143
	4.00	8.59	116
	5.40	11.21	89
	6.00	12.27	81
120 X 60	3.60	9.50	105
	4.50	11.67	86
	5.40	13.76	73
122 X 61	3.60	9.67	103
	4.50	11.88	84
	5.40	14.01	71
125 X 75	4.00	12.16	83
	5.00	15.08	67
	6.00	17.95	56
125 X 100	4.00	13.71	73
	5.00	17.02	59
	6.00	20.27	49
145 X 82	3.60	12.16	82
	4.50	14.99	67
	5.40	17.74	56

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:	Min1:600 th 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, mill-cut finish without further machining.
Surface Finish:	Black without any surface treatment of oiling or varnishing.
Raw Material:	Sulphur content: 0.05% max. Phosphorus content:0.05% max.





GRAVITY PIPES

Chale long life...

GRAVITY FERROUS PVT. LTD.

For Trade Enquiry - 0771-6750316-17

 252/9, Kanhera Road, Village Achholi, Urla, Raipur, Chhattisgarh (493221)

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