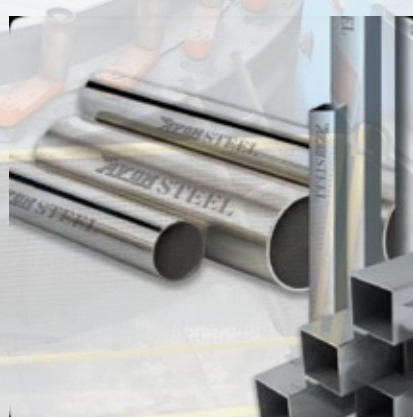




AVON STEEL

THE SYMBOL OF
TRUST



GI PIPES | ERW STEEL TUBES | HOT ROLLED COILS | CYCLE & HEAVY DUTY RIMS

OVERVIEW

Welcome to Avon Steel Industries Pvt. Ltd., a trusted and leading name in the steel industry, built on a strong legacy of over seven decades of excellence. As a proud member of the Avon Group of Industries, which started its journey with Avon Cycles Limited in 1952, we have expanded our expertise and capabilities to become one of India's most reliable manufacturers of high-quality steel products.

At Avon Steel, we offer a comprehensive range of steel solutions, including Hot Rolled Coils, ERW Pipes, Galvanized Pipes, and Hollow Section Pipes, catering to the needs of various industries such as construction, automotive, infrastructure, engineering, and manufacturing. Our products are trusted for their durability, precision, and compliance with the highest industry standards.

With an annual turnover of ₹1000 crores (120 Million USD), we have built a strong presence in the domestic market and are actively expanding our footprint in global markets, delivering excellence across borders.

Our state-of-the-art manufacturing facility in Ludhiana, Punjab, is equipped with cutting-edge technology to ensure superior production quality. We strictly adhere to national and international standards, including IS, BS, EN, ASTM, AS, and SL, ensuring that our steel products meet the highest levels of performance, safety, and reliability.

At Avon Steel, quality, sustainability, and innovation are at the core of our operations. Our ISO & CE certifications stand as a testament to our unwavering commitment to delivering world-class products while upholding environmentally responsible practices.



75+
Years

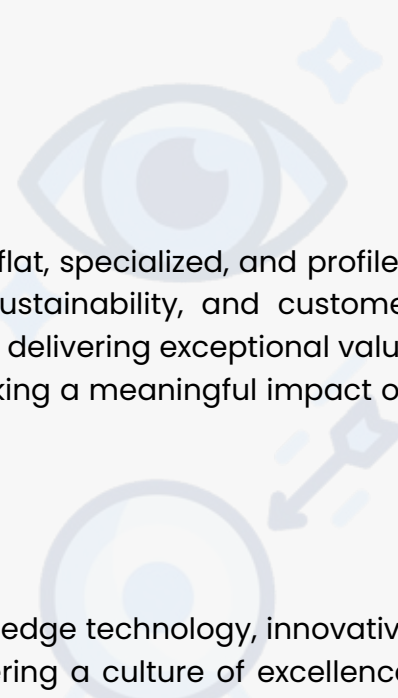


9,75,080.25
Square Feet



1,000+
Employees

Vision, Mission & Values



Our Vision

At Avon Steel, we aspire to be a global leader in value-added flat, specialized, and profiled steel products. With a strong commitment to innovation, sustainability, and customer satisfaction, we aim to expand our international presence while delivering exceptional value to our stakeholders. Beyond business, we are dedicated to making a meaningful impact on society through responsible and ethical practices.

Our Mission

To turn our vision into reality, we continuously invest in cutting-edge technology, innovative solutions, and the optimization of our human capital. By fostering a culture of excellence, efficiency, and sustainability, we strive to enhance productivity and ensure long-term growth. Our unwavering commitment to environmental stewardship and corporate responsibility remains at the heart of our operations, shaping a better future for all.

Our Core Values

1. Responsibility

We prioritize environmental protection, energy conservation, and workplace safety. Our commitment extends beyond business, ensuring the well-being of all stakeholders.

2. Innovation

We embrace cutting-edge technology, process improvements, and product advancements. Our forward-thinking approach drives growth and delivers value to our customers.

3. Integrity

We embrace cutting-edge technology, process improvements, and product advancements. Our forward-thinking approach drives growth and delivers value to our customers.

4. Continuous Learning

We evolve through knowledge, experience, and innovation. By fostering a culture of growth, we empower individuals and teams to achieve excellence.

5. Trust

Trust forms the foundation of our relationships. We operate with integrity and reliability, building lasting partnerships for mutual success.

Avon Steels Advantage

Strength • Quality • Sustainability • Community

1.

Manufacturing Excellence

Bringing Steel to Life

2.

Quality Control

Uncompromised Precision

3.

Sustainability

Leading the Green Revolution

4.

CSR

Empowering Communities



Breadth of Capabilities

Avon Steel offers a comprehensive range of steel solutions, catering to diverse industries with precision engineering, advanced manufacturing, and innovative product offerings.



Quality

Committed to excellence, we ensure top-tier quality through rigorous testing, industry-leading standards, and continuous improvement in our processes and products.



Experience

With years of expertise in the steel industry, Avon Steel has built a strong reputation for reliability, technical proficiency, and customer-centric solutions.

Manufacturing Excellence

At Avon Steel Industries Pvt. Ltd., manufacturing excellence is at the core of our operations. Our state-of-the-art production facility in Ludhiana, Punjab, integrates advanced technology with stringent process controls to ensure superior quality and efficiency.

Key Features of Our Manufacturing Excellence:

1.

Advanced Production Lines

Our state-of-the-art high-speed automation and precision machinery allow us to optimize production while maintaining consistent quality. With cutting-edge technology.

2.

Quality Assurance Systems

We prioritize quality at every stage of production, implementing real-time monitoring and defect detection systems to ensure excellence.

3.

Highly Skilled Workforce

Our team of seasoned professionals and technical experts ensures that every steel product meets the highest industry standards. With years of experience in metallurgy and engineering.

4.

Integrated Supply Chain

A seamless production process requires an efficient and well-managed supply chain. At Avon Steel, we maintain a fully integrated system that optimizes material procurement and logistics.

Innovative Technologies & Processes

- **High-precision tube mills and rolling mills** for consistent and durable steel products.
- **Automated galvanization plants** to enhance corrosion resistance.
- **Energy-efficient production systems** to reduce environmental impact.
- **Custom fabrication capabilities** tailored to industry-specific needs.



Quality Control

At Avon Steel Industries Pvt. Ltd., quality is at the core of everything we do. We are an ISO 9001-certified company, dedicated to delivering high-quality steel products that meet industry standards and customer expectations. Our quality management system is continuously improved through advanced technology, rigorous testing, and strict compliance with national and international standards.

Quality Policy

We are committed to:

- Enhancing customer satisfaction
- Supplying high-quality products
- Ensuring timely delivery
- Introducing new and upgraded technology
- Complying with regulatory and statutory requirements
- Continual improvement in our quality management system

Quality Assurance Protocols

1.

Raw Material Inspection:

Ensuring high-grade steel inputs for consistent product quality.

2.

In-Process Quality Checks:

Real-time monitoring during manufacturing.

3.

Finished Goods Testing:

Mechanical, chemical, and structural analysis before dispatch.

4.

ISO & CE Certifications:

Compliance with global quality and safety norms.

Testimony to our Capacity

"Certificate of Recognition" from Govt. of India

Management System Certifications:

1. ISO 9001:2015
2. ISO 14001:2015
3. ISO 45001:2018
4. ISO 50001:2018

Product and Marking Certificate:

1. EN 10219-1:2006
2. EN 10255:2004
3. EN-39



THE SYMBOL OF
TRUST

Conforming to the highest standards

Delivering high quality

Equivalent Standards of Tubes & Pipes with Applications

S.No.	Standard End Use	Indian	British/European	American	Japanese	German	Australian
1	Water, Gas, Steam	IS-1239	BS-1387 EN-10255	ASTM A-53	–	DIN-2439, 2440 & 2441	AS 1074
2	Water, Sewage	IS-3589	BS-5534	–	–	–	–
3	Structural, Scaffolding	IS-1161	BS-1139, 6323 EN-39 EN-10219	ASTM A-500	JIS G 3444	–	AS 1163
4	Water Wells, Casing	IS-4270	BS-879	–	–	–	–
5	Sectional Tubes (Sq. & Rect.)	IS-4923	--	ASTM A-500	JIS G 3466	DIN-2395	AS 1163
6	Sectional Tubes (Sq. & Rect.)	IS-18573	--	ASTM A-500	JIS G 3466	DIN-2395	AS 1163
7	Mechanical Application	IS-3601	BS-6323	–	JIS G 3445	DIN-2393	
8	Boiler & APH Tubes	–	BS: 3059, 6323	ASTM A 423 Gr 1 & Gr 2	–	–	–

ERW Steel Tubes & GI Pipes

Erw Steel Tubes For Ordinary Uses In Water, Gas And Air Lines Conforming To Is 1239 (Part-1): 2004 Correspondence To Bs 1387/ 1985

N.B.& SERIES		OUTSIDE DIAMETER		WALL THICKNESS		NORMAL WEIGHT BLACK TUBES				NORMAL WEIGHT				SOCKETS	
						PLAIN END		SCREWED & SOCKETED		PLAIN END		SCREWED & SOCKETED		MIN. OD.	MIN LENGTH
MM		MINIMUM	MAXIMUM	MM	SWG	KG/M	M/ TONE	KG/M	M/TONE	KG/M	M/TONE	KG/M	M/TONE	MM	SOCKETS
15	L	21.0	21.4	2.00	14	0.947	1056	0.956	1046	0.947	1056	0.956	1046	27.0	37.0
	M	21.0	21.8	2.60	12	1.21	826	1.22	819	1.21	826	1.22	819		
	H	21.0	21.8	3.20	10	1.44	694	1.45	689	1.44	694	1.45	689		
20	L	26.4	26.9	2.30	13	1.38	724	1.39	719	1.38	724	1.39	719	32.5	39.0
	M	26.5	27.3	2.60	12	1.56	641	1.57	637	1.56	641	1.57	637		
	H	26.5	27.3	3.20	10	1.87	534	1.88	532	1.87	534	1.88	532		
25	L	33.2	33.8	2.60	12	1.98	505	2.00	500	1.98	505	2.00	500	39.5	46.0
	M	33.3	34.2	3.20	10	2.41	415	2.43	411	2.41	415	2.43	411		
	H	33.3	34.2	4.00	8	2.93	341	2.95	339	2.93	341	2.95	339		
32	L	41.9	42.5	2.60	12	2.54	393	2.57	389	2.54	393	2.57	389	49.0	51.0
	M	42.0	42.9	3.20	10	3.10	322	3.13	319	3.10	322	3.13	319		
	H	42.0	42.9	4.00	8	3.79	264	3.82	261	3.79	264	3.82	261		
40	L	47.8	48.4	2.90	11	3.23	309	3.27	306	3.23	309	3.27	306	56.0	51.0
	M	47.9	48.8	3.20	10	3.56	281	3.60	277	3.56	281	3.60	277		
	H	47.9	48.8	4.00	8	4.37	229	4.41	226	4.37	229	4.41	226		
50	L	59.6	60.2	2.90	11	4.08	245	4.15	241	4.08	245	4.15	241	68.0	60.0
	M	59.7	60.8	3.60	9	5.03	199	5.10	196	5.03	199	5.10	196		
	H	59.7	60.8	4.50	7	6.19	161	6.26	159	6.19	161	6.26	159		
65	L	75.2	76.0	3.20	10	5.71	175	5.83	171	5.71	175	5.83	171	84.0	69.0
	M	75.3	76.6	3.60	9	6.42	155	6.54	153	6.42	155	6.54	153		
	H	75.3	76.6	4.50	7	7.93	126	8.05	124	7.93	126	8.05	124		
80	L	87.9	88.7	3.20	10	6.72	149	6.89	145	6.72	149	6.89	145	98.0	75.0
	M	88.0	89.5	4.00	8	8.36	119	8.53	117	8.36	119	8.53	117		
	H	88.0	89.5	4.80	6	9.90	101	10.10	99	9.90	101	10.10	99		
100	L	113.0	113.9	3.60	9	9.75	102	10.00	100	9.75	102	10.00	100	124.0	87.0
	M	113.1	115.0	4.50	7	12.20	82	12.50	80	12.20	82	12.50	80		
	H	113.1	115.0	5.40	5	14.50	69	14.80	67	14.50	69	14.80	67		
125	M	138.5	140.8	4.80	6	15.90	63	16.40	61	15.90	63	16.40	61	151.0	96.0
	H	138.5	140.8	5.40	5	17.90	56	18.40	54	17.90	56	18.40	54		
150	M	163.9	166.5	4.80	6	18.90	53	19.50	51	18.90	53	19.50	51	178.0	96.0
	H	163.9	166.5	5.40	5	21.30	47	21.90	45	21.30	47	21.90	45		

TOLERANCE

A. Thickness	Light Tubes	+ not limited	Medium & Heavy tubes	+ not limited							
		-8%		-10%		For quantities per load of 10 Tonnes mini. (Light Series)	+7.5%	For quantities per load of 10 Tonnes mini. (Medium & Heavy Series)	+7.5%		
B. Weight	Single Tube	+10%	Single Tube		+10%		-5%		-7.5%		
	(Light Series)	-8%	(Medium & Heavy Series)		-10%						
C. Length	Unless otherwise specified 4 to 7 meters.										



ERW STEEL TUBES FOR MECHANICAL & GENERAL ENGINEERING PURPOSE IS 3601:2006

DIMENSIONS AND DESIGN PROPERTIES OF STEEL TUBES GRADE WT 210, WT 240 & WT 310

OUTSIDE DIAMETE	Thick mm2	Mass kg/m 3	Area of cross section m 4	Moment of inertia cm 5	MODAL OF SECTION CM 6	REDIUS OF GYRATION CM
21.3	1.8	0.866	1.1	0.53	0.5	0.69
	2	0.952	1.21	0.57	0.54	0.69
	2.6	1.2	1.53	0.68	0.64	0.67
	3.2	1.43	1.82	0.77	0.72	0.65
26.9	1.8	1.11	1.42	1.12	0.83	0.89
	2	1.23	1.56	1.22	0.91	0.88
	2.3	1.4	1.78	1.36	1.01	0.87
	2.6	1.56	1.98	1.48	1.1	0.86
	3.2	1.87	2.38	1.7	1.27	0.85
33.7	2	1.56	1.99	2.51	1.49	1.12
	2.3	1.78	2.27	2.81	1.67	1.11
	2.6	1.99	2.54	3.09	1.84	1.1
	3.2	2.41	3.07	3.6	2.14	1.08
	4	2.93	3.73	4.19	2.49	1.06
42.4	2.3	2.27	2.9	5.85	2.76	1.42
	2.6	2.55	3.25	6.46	3.05	1.41
	3.2	3.09	3.94	7.62	3.59	1.39
	3.6	3.44	4.39	8.33	3.93	1.38
	4	3.79	4.83	8.9	4.24	1.36
48.3	2.3	2.61	3.32	8.8	3.64	1.63
	2.6	2.93	3.73	9.77	4.05	1.62
	2.9	3.25	4.14	10.7	4.43	1.61
	3.2	3.56	4.53	11.59	4.8	1.6
	3.6	3.97	5.05	12.69	5.25	1.59
	4	4.37	5.57	13.77	5.7	1.57
60.3	2.3	3.29	4.19	17.65	5.85	2.05
	2.6	3.7	4.71	19.64	6.51	2.04
	2.9	4.11	5.23	21.59	7.16	2.03
	3.2	4.51	5.74	23.47	7.78	2.02
	3.6	5.03	6.41	25.87	8.58	2.01
	4	5.55	7.07	28.15	9.34	2
	4.5	6.19	7.89	30.9	10.2	1.98
76.1	2.6	5.24	6	40.57	10.66	2.6
	2.9	5.75	6.67	44.74	11.76	2.59
	3.2	6.44	7.33	48.78	12.8	2.58
	3.6	7.11	8.2	54.01	14.2	2.57
	4.5	7.95	10.1	65.12	17.1	2.54
	5	8.77	11.16	70.87	18.63	2.52
88.9	2.9	6.15	7.83	72.47	16.3	3.04
	3.2	6.76	8.62	79.21	17.8	3.03
	4	8.38	10.7	96.34	21.7	3
	5	10.3	13.2	116.4	26.2	2.97
	5.4	11.1	14	123.8	27.8	2.97
	5.6	11.5	14.65	127.64	28.72	2.95
101.6	3.6	8.7	11.1	133.2	26.2	3.47
	4	9.63	12.3	146.2	28.8	3.45
	5	11.9	15.2	177.5	34.9	3.42

OUTSIDE DIAMETE	Thick mm2	Mass kg/m 3	Area of cross section m 4	Moment of inertia cm 5	MODAL OF SECTION CM 6	REDIUS OF GYRATION CM
114.3	3.2	8.77	11.16	172.33	30.15	3.93
	3.6	9.83	12.5	192	33.6	3.92
	4.5	12.2	15.5	234.3	41	3.89
	5.4	14.5	18.5	274.5	48	3.86
	6.3	16.8	21.2	315	55.1	3.83
139.7	3.6	12.1	15.38	356.36	51.02	4.81
	4	13.4	17.04	392.57	56.2	4.8
	4.5	15	19.1	437.2	62.6	4.78
	5	16.6	21.2	480.5	68.8	4.77
	5.4	17.9	22.8	514.5	73.7	4.75
	6.3	20.7	26.3	591	84.7	4.73
152.4	4.5	16.4	20.9	572.2	75.1	5.23
	5	18.2	23.2	629.5	82.6	5.21
	5.4	19.6	24.9	674.5	88.5	5.2
165.1	4.5	17.8	22.7	732.6	88.7	5.68
	5	19.7	25.1	806.6	97.7	5.66
	5.4	21.2	27.1	864.7	105	5.65
	6.3	24.8	31.4	992	120	5.63
168.3	4	16.2	20.64	696.87	82.81	5.81
	4.5	18.2	23.2	777.2	98.4	5.79
	5	20.1	25.7	855.8	102	5.78
	5.4	21.7	27.6	917.7	109	5.76
	6.3	25.2	32.1	1053	125	5.73
	7.1	28.2	35.94	1169.66	139	5.7
193.7	5	23.3	29.6	1320	136	6.67
	5.4	25.1	31.9	1417	146	6.66
	5.9	27.3	34.8	1536	159	6.64
	6.3	29.1	37	1600	165	6.6
	8	36.6	46.3	2004	207	6.57
219.1	4.5	23.8	30.32	1746.18	159.4	7.59
	5	26.4	33.6	1928	176	7.57
	5.6	29.5	37.6	2142	195	7.56
	6.3	33.1	42	2404	219	7.54
	8	41.6	52	1940	268	7.52

A. PHYSICAL PROPERTIES

Grade	Y.S.	T.S	% age Elongation (Min.)	
	Mpa (min)	Mpa (min)	As welded (less then Or equal to 33.7 mm OD	As welded (more then Or equal to 33.7 mm OD
WT 160	160	310	15	22
WT 210	210	330	12	20
WT 240	240	410	10	15
WT 310	310	450	6	10

B. MANUFACTURING TOLERANCE

Over mm	Up to & including mm	Tolerance on outside
-	25.4	±0.15
25.4	51	±0.18
51	63.5	±0.25
63.5	76.1	±0.25
76.1	88.9	±0.31
88.9	101.6	±0.36
101.6	114.3	±0.43
114.3	152.4	±0.58
152.4	168.3	±0.65
168.3	-	±0.75
NOTE: The tolerance of thickness excluding the weld shall be ± 10%		

DIMENSIONS AND DEPTH PROPERTIES OF SQUARE HOLLOW SECTIONS IS 4923:2017
GRADE YST 210, YST 240, YST 310

SHS	DEPTH	WIDTH	THICKNESS	WEIGHT	AREA	MOMENT OF	RADIUS OF	ELASTIC	PLASTIC
DXD	D	D			OF SECTION	INERTIA	GYRATION	MODULUS	MODULUS
MM	MM	MM	MM	KG/M	CM ²	CM ⁴	CM	CM ³	CM ³
1	2	3	4	5	6	7	8	9	10
20.0x20.0	20.0	20.0	2.0	1.15	1.33	0.58	0.68	0.61	0.61
	20.0	20.0	2.6	1.46	2.17	0.63	0.66	0.66	0.66
25.0x25.0	25.0	25.0	2.6	1.69	2.16	1.72	0.89	1.38	1.76
	25.0	25.0	3.2	1.98	2.53	1.89	0.86	1.51	1.98
30.0X30.0	30.0	30.0	2.0	1.68	2.14	2.72	1.13	1.81	2.21
	30.0	30.0	2.5	2.03	2.59	3.16	1.1	2.1	2.61
	30.0	30.0	2.6	2.1	2.68	3.23	1.1	2.15	2.68
	30.0	30.0	3.0	2.36	3.01	3.5	1.08	2.34	2.96
	30.0	30.0	3.2	2.49	3.17	3.62	1.07	2.41	3.08
32.0x32.0	32.0	32.0	2.6	2.26	2.88	4.02	1.18	2.51	3.11
	32.0	32.0	3.2	2.69	3.42	4.54	1.15	2.84	3.59
	32.0	32.0	4.0	3.19	4.07	5.02	1.11	3.14	4.11
35.0x35.0	35.0	35.0	2.0	1.99	2.54	4.51	1.33	2.58	3.09
	35.0	35.0	2.6	2.51	3.2	5.43	1.3	3.1	3.81
	35.0	35.0	3.2	2.99	3.81	6.18	1.27	3.53	4.42
	35.0	35.0	4.0	3.57	4.55	6.93	1.23	3.96	5.11
38.0x38.0	38.0	38.0	2.0	2.18	2.78	5.88	1.46	3.1	3.7
	38.0	38.0	2.6	2.75	3.51	7.14	1.43	3.76	4.57
	38.0	38.0	3.2	3.29	4.19	8.18	1.4	4.3	5.34
	38.0	38.0	4.0	3.95	5.03	9.26	1.36	4.87	6.22
40.0x40.0	40.0	40.0	2.6	2.92	3.72	8.45	1.51	4.22	5.12
	40.0	40.0	3.2	3.49	4.45	9.72	1.48	4.86	6.01
	40.0	40.0	3.6	3.85	4.91	10.45	1.46	5.22	6.53
	40.0	40.0	4.0	4.2	5.35	11.07	1.44	5.54	7.01
45.0x45.0	45.0	45.0	2.0	2.62	3.34	10.12	1.74	4.5	5.32
	45.0	45.0	2.6	3.33	4.24	12.42	1.71	5.52	6.64
	45.0	45.0	2.9	3.66	4.67	13.45	1.7	5.98	7.25
	45.0	45.0	3.0	3.77	4.81	13.78	1.69	6.12	7.44
	45.0	45.0	3.2	3.99	5.09	14.41	1.68	6.4	7.82
	45.0	45.0	4.0	4.83	6.15	16.61	1.64	7.38	9.22
49.5x49.5	49.5	49.5	2.0	2.9	3.7	13.7	1.93	5.54	6.52
	49.5	49.5	2.6	3.69	4.7	16.91	1.9	6.83	8.16
	49.5	49.5	3.0	4.2	5.35	18.84	1.88	7.61	9.18
	49.5	49.5	3.2	4.45	5.66	19.74	1.87	7.98	9.67
	49.5	49.5	4.0	5.39	6.87	22.95	1.83	9.27	11.46
	49.5	49.5	5.0	6.48	8.26	26.11	1.78	10.55	13.38
50.0x50.0	50.0	50.0	2.0	2.93	3.74	14.15	1.95	5.66	6.66
	50.0	50.0	2.9	4.07	5.19	18.37	1.88	7.42	8.93
	50.0	50.0	3.6	4.93	6.28	21.42	1.85	8.66	10.6
	50.0	50.0	4.5	5.95	7.58	24.64	1.8	9.96	12.47
60.0x60.0	60.0	60.0	2.0	3.56	4.54	25.14	2.35	8.38	9.79
	60.0	60.0	2.5	4.39	5.59	30.34	2.33	10.11	11.93
	60.0	60.0	3.0	5.19	6.61	35.13	2.31	11.71	13.95
	60.0	60.0	4.0	6.71	8.55	43.55	2.26	14.52	17.64
	60.0	60.0	5.0	8.13	10.36	50.49	2.21	16.83	20.88
	60.0	60.0	6.0	9.45	12.03	56.07	2.16	18.69	23.67
	60.0	60.0	6.3	9.82	12.51	57.48	2.14	19.16	24.43
63.5x63.5	63.5	63.5	2.5	4.66	5.94	36.32	2.47	11.44	13.46
	63.5	63.5	3.2	5.85	7.46	44.35	2.44	13.97	16.65
	63.5	63.5	3.6	6.51	8.29	48.55	2.42	15.29	18.36
	63.5	63.5	4.5	7.93	10.1	57	2.38	17.95	21.93

SHS	DEPTH	WIDTH	THICKNESS	WEIGHT	AREA	MOMENT OF	RADIUS OF	ELASTIC	PLASTIC
DXD	D	D			OF SECTION	INERTIA	GYRATION	MODULUS	MODULUS
MM	MM	MM	MM	KG/M	CM2	CM4	CM	CM3	CM3
70.0x70.0	70.0	70.0	2.5	5.17	6.59	49.41	2.74	14.12	16.54
	70.0	70.0	3.0	6.13	7.81	57.53	2.71	16.44	19.41
	70.0	70.0	4.0	7.97	10.15	72.12	2.67	20.61	24.75
	70.0	70.0	5.0	9.7	12.36	84.63	2.62	24.18	29.55
	70.0	70.0	6.0	11.33	14.43	95.17	2.57	27.19	33.83
	70.0	70.0	6.3	11.8	15.03	97.97	2.55	27.99	35.01
72.0x72.0	72.0	72.0	2.5	5.33	6.79	53.99	2.82	15	17.55
	72.0	72.0	3.0	6.32	8.05	62.92	2.8	17.48	20.62
	72.0	72.0	3.2	6.71	8.54	66.32	2.79	18.42	21.8
	72.0	72.0	4.0	8.22	10.47	79.03	2.75	21.95	26.32
	72.0	72.0	4.8	9.66	12.31	90.31	2.71	25.09	30.48
	72.0	72.0	5.0	10.01	12.76	92.91	2.7	25.81	31.47
75.0x75.0	75.0	75.0	3.0	6.6	8.41	71.62	2.92	19.1	22.48
	75.0	75.0	3.2	7.01	8.93	75.53	2.91	20.14	23.79
	75.0	75.0	3.6	7.81	9.95	83.06	2.89	22.15	26.32
	75.0	75.0	4.5	9.55	12.17	98.55	2.85	26.28	31.68
80.0x80.0	80.0	80.0	3.0	7.07	9.01	87.84	3.12	21.96	25.78
	80.0	80.0	4.0	9.22	11.75	111.04	3.07	27.76	33.07
	80.0	80.0	5.0	11.27	14.36	131.44	3.03	32.86	39.73
	80.0	80.0	6.0	13.21	16.83	149.18	2.98	37.29	45.78
	80.0	80.0	6.3	13.78	17.55	154	2.96	38.5	47.48
	80.0	80.0	8.0	16.79	21.39	177.19	2.88	44.3	56.11
88.9x88.9	88.9	88.9	3.0	7.91	10.08	122.46	3.49	27.55	32.2
	88.9	88.9	3.2	8.4	10.71	129.4	3.48	29.11	34.11
	88.9	88.9	3.6	9.38	11.95	142.83	3.46	32.13	37.85
	88.9	88.9	4.5	11.52	14.67	170.97	3.41	38.46	45.85
90.0x90.0	90.0	90.0	3.0	8.01	10.21	127.28	3.53	28.29	33.04
	90.0	90.0	4.0	10.48	13.35	161.92	3.48	35.98	42.58
	90.0	90.0	5.0	12.84	16.36	192.93	3.43	42.87	51.41
	90.0	90.0	6.0	15.1	19.23	220.48	3.39	48.99	59.54
	90.0	90.0	6.3	15.76	20.07	228.09	3.37	50.69	61.84
	90.0	90.0	8.0	19.31	24.59	265.78	3.29	59.06	73.77
91.5x91.5	91.5	91.5	3.0	8.16	10.39	134.06	3.59	29.3	34.21
	91.5	91.5	3.6	9.67	12.32	156.49	3.56	34.21	40.24
	91.5	91.5	4.0	10.67	13.59	170.68	3.54	37.31	44.11
	91.5	91.5	4.5	11.88	15.14	187.57	3.52	41	48.79
	91.5	91.5	4.8	12.6	16.05	197.27	3.51	43.12	51.51
100.0x100.0	100.0	100.0	3.0	8.96	11.41	177.05	3.94	35.41	41.21
	100.0	100.0	4.0	11.73	14.95	226.35	3.89	45.27	53.3
	100.0	100.0	5.0	14.41	18.36	271.1	3.84	54.22	64.59
	100.0	100.0	6.0	16.98	21.63	311.47	3.79	62.29	75.09
	100.0	100.0	6.3	17.73	22.59	322.76	3.78	64.55	78.1
	100.0	100.0	8.0	21.82	27.79	379.77	3.7	75.95	93.82
	100.0	100.0	10.0	26.24	33.43	432.6	3.6	86.52	109.59
	100.0	100.0	12.0	30.25	38.54	471.27	3.5	94.25	122.53
	100.0	100.0	12.5	31.19	39.73	478.87	3.47	95.77	125.34
113.5x113.5	113.5	113.5	3.0	10.23	13.03	262.73	4.49	46.3	53.66
	113.5	113.5	4.0	13.43	17.11	337.67	4.44	59.5	69.66
	113.5	113.5	4.5	14.99	19.1	372.88	4.42	65.71	77.32
	113.5	113.5	4.8	15.92	20.28	393.3	4.4	69.3	81.81
	113.5	113.5	5.0	16.53	21.06	406.63	4.39	71.65	84.76
	113.5	113.5	5.4	17.74	22.6	432.58	4.38	76.23	90.54
120.0x120.0	120.0	120.0	3.0	10.84	13.81	312.35	4.76	52.06	60.23
	120.0	120.0	4.0	14.25	18.15	402.28	4.71	67.05	78.32
	120.0	120.0	5.0	17.55	22.36	485.47	4.66	80.91	95.44
	120.0	120.0	6.0	20.75	26.43	562.16	4.61	93.69	111.61
	120.0	120.0	6.3	21.69	27.63	583.92	4.6	97.32	116.27
	120.0	120.0	8.0	26.84	34.19	696.82	4.51	116.14	141.13
	120.0	120.0	10.0	32.52	41.43	807.91	4.42	134.65	167.01
	120.0	120.0	12.0	37.79	48.14	897.05	4.32	149.51	189.38
	120.0	120.0	12.5	39.04	49.73	916.09	4.29	152.68	194.43

SHS	DEPTH	WIDTH	THICKNESS	WEIGHT	AREA	MOMENT OF	RADIUS OF	ELASTIC	PLASTIC
DXD	D	D			OF SECTION	INERTIA	GYRATION	MODULUS	MODULUS
MM	MM	MM	MM	KG/M	CM ²	CM ⁴	CM	CM ³	CM ³
125.0x125.0	125.0	125.0	3.0	11.31	14.41	354.5	4.96	56.72	65.55
	125.0	125.0	4.5	16.62	21.17	505.83	4.89	80.93	94.84
	125.0	125.0	5.0	18.34	23.36	552.62	4.86	88.42	104.09
	125.0	125.0	6.0	21.69	27.63	640.89	4.82	102.54	121.86
132.0x132.0	132.0	132.0	4.0	15.75	20.07	542.25	5.2	82.16	95.64
	132.0	132.0	4.5	17.61	22.43	600.45	5.17	90.98	106.37
	132.0	132.0	4.8	18.71	23.83	634.39	5.16	96.12	112.68
	132.0	132.0	5.0	19.43	24.76	656.62	5.15	99.49	116.83
	132.0	132.0	5.4	20.88	26.6	700.11	5.13	106.08	125.01
	132.0	132.0	6.0	23.01	29.31	762.98	5.1	115.6	136.97
140.0x140.0	140.0	140.0	4.0	16.76	21.35	651.6	5.52	93.09	108.15
	140.0	140.0	5.0	20.69	26.36	790.6	5.48	112.94	132.3
	140.0	140.0	6.0	24.52	31.23	920.4	5.43	131.49	155.32
	140.0	140.0	6.3	25.65	32.67	957.7	5.41	136.81	162.01
	140.0	140.0	8.0	31.87	40.59	1153.9	5.33	164.85	198.04
	140.0	140.0	10.0	38.8	49.43	1354.1	5.23	193.44	236.43
	140.0	140.0	12.0	45.32	57.74	1522.8	5.14	217.54	270.62
	140.0	140.0	12.5	46.89	59.73	1560.2	5.11	222.89	278.53
	140.0	140.0	16.0	57.13	72.78	1773.3	4.94	253.32	326.86
150.0x150.0	150.0	150.0	4.0	18.01	22.95	807.82	5.93	107.71	124.86
	150.0	150.0	5.0	22.26	28.36	982.12	5.89	130.95	152.97
	150.0	150.0	6.0	26.4	33.63	1146	5.84	152.79	179.87
	150.0	150.0	6.3	27.63	35.19	1193	5.82	159.07	187.71
	150.0	150.0	7.0	30.44	38.78	1299	5.79	173.26	205.57
	150.0	150.0	8.0	34.38	43.79	1443	5.74	192.4	230.09
	150.0	150.0	10.0	41.94	53.43	1701	5.64	226.83	275.64
160.0x160.0	160.0	160.0	4.0	19.27	24.55	987	6.34	123.4	142.78
	160.0	160.0	5.0	23.83	30.36	1202	6.29	150.29	175.15
	160.0	160.0	6.0	28.29	36.03	1405	6.25	175.69	206.23
	160.0	160.0	6.3	29.6	37.71	1464	6.23	183.01	215.3
	160.0	160.0	8.0	36.89	46.99	1777	6.15	222.09	264.55
	160.0	160.0	10.0	45.08	57.43	2103	6.05	262.88	317.85
180.0x180.0	180.0	180.0	4.0	21.78	27.75	1422	7.16	157.97	182.2
	180.0	180.0	5.0	26.97	34.36	1737	7.11	192.99	224.01
	180.0	180.0	6.0	32.05	40.83	2037	7.06	226.28	264.34
	180.0	180.0	6.3	33.56	42.75	2123	7.05	235.94	276.15
	180.0	180.0	8.0	41.91	53.39	2591	6.97	287.86	340.66
	180.0	180.0	10.0	51.36	65.43	3087	6.87	342.99	411.27
200.0x200.0	200.0	200.0	4.0	24.29	30.95	1968	7.97	196.81	226.43
	200.0	200.0	5.0	30.11	38.36	2410	7.93	241.01	278.86
	200.0	200.0	6.0	35.82	45.63	2833	7.88	283.27	329.65
	200.0	200.0	6.3	37.52	47.79	2956	7.86	295.58	344.57
	200.0	200.0	8.0	46.94	59.79	3622	7.78	362.16	426.36
	200.0	200.0	10.0	57.64	73.43	4338	7.69	433.76	516.69

Apart from above mentioned size, We also manufacture customized and need based requirement.

STEEL HOLLOW SECTIONS FOR STRUCTURAL USE (RHS)

DIMENSIONS AND DEPTH PROPERTIES OF RECTANGULAR HOLLOW SECTIONS IS
4923:2017 GRADE YST 210,YST 240,YST 310 CORRESPONDENSE TO EN-10219/ASTM A500

HS	DEPTH	WIDTH			AREA	MOMENT OF INERTIA		RADIUS OF		ELASTIC MODULUS		PLASTIC MODULUS	
DXB	D	D	THICKNESS	WEIGHT	OF SECTION	ABOUT		ABOUT		ABOUT		ABOUT	
						X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y
40x20	40.0	20.0	2.0	1.68	2.14	4.05	1.34	1.38	0.79	2.02	1.34	2.61	1.6
	40.0	20.0	2.5	2.03	2.59	4.69	1.54	1.35	0.77	2.35	1.54	3.09	1.88
	40.0	20.0	3.0	2.36	3.01	5.21	1.68	1.32	0.75	2.6	1.68	3.5	2.12
50x25	50.0	25.0	2.0	2.15	2.74	8.38	2.81	1.75	1.01	3.35	2.25	4.26	2.62
	50.0	25.0	2.5	2.62	3.34	9.89	3.28	1.72	0.99	3.95	2.62	5.1	3.12
	50.0	25.0	2.9	2.98	3.8	10.93	3.6	1.7	0.97	4.37	2.88	5.72	3.48
	50.0	25.0	3.2	3.24	4.13	11.63	3.8	1.68	0.96	4.65	3.04	6.14	3.73
	50.0	25.0	4.0	3.88	4.95	13.13	4.23	1.63	0.92	5.25	3.38	7.13	4.29
50x30	50.0	30.0	2.0	2.31	2.94	9.54	4.29	1.8	1.21	3.81	2.86	4.74	3.33
	50.0	30.0	2.5	2.82	3.59	11.3	5.05	1.77	1.19	4.52	3.37	5.7	3.98
	50.0	30.0	3.0	3.3	4.21	12.83	5.7	1.75	1.16	5.13	3.8	6.57	4.58
	50.0	30.0	4.0	4.2	5.35	15.25	6.69	1.69	1.12	6.1	4.46	8.05	5.58
66x33	66.0	33.0	2.0	2.9	3.7	20.37	6.9	2.35	1.37	6.17	4.18	7.73	4.77
	66.0	33.0	2.6	3.69	4.7	25.15	8.43	2.31	1.34	7.62	5.11	9.68	5.94
	66.0	33.0	2.9	4.07	5.19	27.33	9.12	2.29	1.33	8.28	5.53	10.59	6.49
	66.0	33.0	3.6	4.93	6.28	31.87	10.52	2.25	1.29	9.66	6.37	12.56	7.65
	66.0	33.0	4.0	5.39	6.87	34.13	11.2	2.23	1.28	10.34	6.79	13.58	8.26
	66.0	33.0	4.5	5.95	7.58	36.64	11.93	2.2	1.25	11.1	7.23	14.76	8.94
60x40	60.0	40.0	2.0	2.93	3.74	18.41	9.83	2.22	1.62	6.14	4.92	7.47	5.65
	60.0	40.0	2.5	3.6	4.59	22.07	11.74	2.19	1.6	7.36	5.87	9.06	6.84
	60.0	40.0	2.9	4.12	5.25	24.74	13.11	2.17	1.58	8.25	6.56	10.24	7.73
	60.0	40.0	3.0	4.25	5.41	25.38	13.44	2.17	1.58	8.46	6.72	10.53	7.94
	60.0	40.0	4.0	5.45	6.95	30.99	16.28	2.11	1.53	10.33	8.14	13.16	9.89
	60.0	40.0	5.0	6.56	8.36	35.33	18.43	2.06	1.48	11.78	9.21	15.38	11.52
70x30	70.0	30.0	2.0	2.93	3.74	22.22	5.86	2.44	1.25	6.35	3.91	8.08	4.45
	70.0	30.0	2.5	3.6	4.59	26.62	6.95	2.41	1.23	7.61	4.63	9.79	5.36
	70.0	30.0	2.9	4.12	5.25	29.82	7.72	2.38	1.21	8.52	5.14	11.07	6.04
	70.0	30.0	3.2	4.5	5.73	32.04	8.24	2.37	1.2	9.15	5.49	11.98	6.51
	70.0	30.0	4.0	5.45	6.95	37.23	9.42	2.31	1.16	10.64	6.28	14.19	7.66
70x50	70.0	50.0	2.0	3.56	4.54	31.48	18.76	2.63	2.03	8.99	7.5	10.8	8.58
	70.0	50.0	2.5	4.39	5.59	38.01	22.59	2.61	2.01	10.86	9.04	13.16	10.45
	70.0	50.0	3.2	5.5	7.01	46.33	27.42	2.57	1.98	13.24	10.97	16.25	12.88
	70.0	50.0	4.0	6.71	8.55	54.67	32.22	2.53	1.94	15.62	12.89	19.47	15.41
	70.0	50.0	5.0	8.13	10.36	63.46	37.2	2.48	1.9	18.13	14.88	23.05	18.2
80x40	80.0	40.0	2.0	3.56	4.54	37.36	12.72	2.87	1.67	9.34	6.36	11.61	7.17
	80.0	40.0	2.5	4.39	5.59	45.11	15.26	2.84	1.65	11.28	7.63	14.14	8.72
	80.0	40.0	2.9	5.03	6.41	50.87	17.11	2.82	1.63	12.72	8.56	16.07	9.88
	80.0	40.0	3.0	5.19	6.61	52.25	17.56	2.81	1.63	13.06	8.78	16.54	10.16
	80.0	40.0	3.2	5.5	7.01	54.94	18.41	2.8	1.62	13.74	9.21	17.46	10.71
	80.0	40.0	4.0	6.71	8.55	64.79	21.49	2.75	1.59	16.2	10.74	20.91	12.77
	80.0	40.0	5.0	8.13	10.36	75.11	24.59	2.69	1.54	18.78	12.3	24.73	15.02
80x50	80.0	50.0	2.0	3.88	4.94	43.44	21.06	2.97	2.07	10.86	8.43	13.17	9.54
	80.0	50.0	2.5	4.78	6.09	52.62	25.41	2.94	2.04	13.15	10.17	16.08	11.64
	80.0	50.0	3.0	5.66	7.21	61.15	29.42	2.91	2.02	15.29	11.77	18.85	13.62
	80.0	50.0	4.0	7.34	9.35	76.36	36.46	2.86	1.97	19.09	14.59	23.95	17.25
	80.0	50.0	4.5	8.14	10.37	83.06	39.52	2.83	1.95	20.77	15.81	26.28	18.9
	80.0	50.0	5.0	8.92	11.36	89.19	42.29	2.8	1.93	22.3	16.92	28.48	20.45
80x60	80.0	60.0	2.0	4.19	5.34	49.53	31.87	3.05	2.44	12.38	10.62	14.73	12.11
	80.0	60.0	2.5	5.17	6.59	60.13	38.61	3.02	2.42	15.03	12.87	18.02	14.81
	80.0	60.0	3.0	6.13	7.81	70.05	44.89	3	2.4	17.51	14.96	21.16	17.37
	80.0	60.0	4.0	7.97	10.15	87.92	56.12	2.94	2.35	21.98	18.71	26.99	22.12
	80.0	60.0	5.0	9.7	12.36	103.28	65.66	2.89	2.31	25.82	21.89	32.23	26.38
90x50	90.0	50.0	2.0	4.19	5.34	57.88	23.37	3.29	2.09	12.86	9.35	15.74	10.5
	90.0	50.0	2.5	5.17	6.59	70.26	28.24	3.27	2.07	15.61	11.29	19.25	12.82
	90.0	50.0	3.0	6.13	7.81	81.85	32.74	3.24	2.05	18.19	13.1	22.6	15.03
	90.0	50.0	4.0	7.97	10.15	102.71	40.71	3.18	2	22.82	16.28	28.82	19.09
	90.0	50.0	5.0	9.7	12.36	120.6	47.37	3.12	1.96	26.8	18.95	34.41	22.7
96x48	96.0	48.0	2.0	4.32	5.5	66.04	22.59	3.47	2.03	13.76	9.41	17	10.52
	96.0	48.0	2.5	5.33	6.79	80.23	27.29	3.44	2	16.71	11.37	20.8	12.85
	96.0	48.0	3.2	6.71	8.54	98.61	33.28	3.4	1.97	20.54	13.87	25.85	15.91
	96.0	48.0	4.0	8.22	10.47	117.54	39.32	3.35	1.94	24.49	16.38	31.2	19.14
	96.0	48.0	4.8	9.66	12.31	134.35	44.55	3.3	1.9	27.99	18.56	36.13	22.07

HS	DEPTH	WIDTH			AREA	MOMENT OF INERTIA		RADIUS OF		ELASTIC MODULUS		PLASTIC MODULUS	
DXB	D	D	THICKNESS	WEIGHT	OF SECTION	ABOUT		ABOUT		ABOUT		ABOUT	
						X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y
100x40	100.0	40.0	2.5	5.17	6.59	79.32	18.78	3.47	1.69	15.86	9.39	20.23	10.59
	100.0	40.0	3.0	6.13	7.81	92.34	21.67	3.44	1.67	18.47	10.84	23.75	12.38
	100.0	40.0	4.0	7.97	10.15	115.7	26.69	3.38	1.62	23.14	13.35	30.26	15.65
	100.0	40.0	5.0	9.7	12.36	135.6	30.76	3.31	1.58	27.12	15.38	36.09	18.52
	100.0	50.0	2.5	5.57	7.09	91.2	31.06	3.59	2.09	18.24	12.42	22.67	14.01
	100.0	50.0	3.2	7.01	8.93	112.29	37.95	3.55	2.06	22.46	15.18	28.2	17.37
	100.0	50.0	4.0	8.59	10.95	134.14	44.95	3.5	2.03	26.83	17.98	34.1	20.93
100x60	100.0	60.0	2.5	5.96	7.59	103.09	46.88	3.69	2.49	20.62	15.63	25.11	17.68
	100.0	60.0	3.0	7.07	9.01	120.57	54.65	3.66	2.46	24.11	18.22	29.57	20.79
	100.0	60.0	4.0	9.22	11.75	152.58	68.68	3.6	2.42	30.52	22.89	37.94	26.6
	100.0	60.0	5.0	11.27	14.36	180.77	80.83	3.55	2.37	36.15	26.94	45.59	31.88
	100.0	60.0	6.0	13.21	16.83	205.3	91.2	3.49	2.33	41.06	30.4	52.53	36.63
	100.0	60.0	6.3	13.78	17.55	211.97	93.99	3.48	2.31	42.39	31.33	54.48	37.96
100x80	100.0	80.0	2.5	6.74	8.59	126.86	90.17	3.84	3.24	25.37	22.54	29.98	25.77
	100.0	80.0	3.0	8.01	10.21	148.81	105.64	3.82	3.22	29.76	26.41	35.39	30.4
	100.0	80.0	4.0	10.48	13.35	189.47	134.17	3.77	3.17	37.89	33.54	45.62	39.15
	100.0	80.0	5.0	12.84	16.36	225.94	159.61	3.72	3.12	45.19	39.9	55.09	47.23
	100.0	80.0	6.0	15.1	19.23	258.39	182.1	3.67	3.08	51.68	45.53	63.81	54.66
	100.0	80.0	6.3	15.76	20.07	267.36	188.3	3.65	3.06	53.47	47.08	66.29	56.77
120x60	120.0	60.0	2.5	6.74	8.59	161.23	55.15	4.33	2.53	26.87	18.38	33.2	20.56
	120.0	60.0	3.0	8.01	10.21	189.12	64.4	4.3	2.51	31.52	21.47	39.17	24.21
	120.0	60.0	4.0	10.48	13.35	240.74	81.25	4.25	2.47	40.12	27.08	50.48	31.08
	120.0	60.0	5.0	12.48	16.36	286.97	95.99	4.19	2.42	47.83	32	60.94	37.38
	120.0	60.0	6.0	15.1	19.23	328.01	108.77	4.13	2.38	54.67	36.26	70.57	43.11
120x80	120.0	80.0	6.3	17.73	22.59	420.87	222.6	4.32	3.14	70.14	55.65	87.62	66.05
	120.0	80.0	8.0	21.82	27.79	495.77	260.48	4.22	3.06	82.63	65.12	105.29	79.15
122x61	122.0	61.0	2.5	6.86	8.74	169.74	58.09	4.41	2.58	27.83	19.05	34.36	21.28
	122.0	61.0	3.0	8.16	10.39	199.18	67.86	4.38	2.56	32.65	22.25	40.56	25.07
	122.0	61.0	3.6	9.67	12.32	232.61	78.83	4.34	2.53	38.13	25.84	47.71	29.42
	122.0	61.0	4.0	10.67	13.59	253.76	85.69	4.32	2.51	41.6	28.1	52.3	32.21
	122.0	61.0	4.5	11.88	15.14	278.94	93.78	4.29	2.49	45.73	30.75	57.84	35.55
	122.0	61.0	5.0	13.08	16.66	302.75	101.35	4.26	2.47	49.63	33.23	63.17	38.76
	122.0	61.0	5.4	14.01	17.85	320.83	107.03	4.24	2.45	52.6	35.09	67.28	41.22
127x50	127.0	50.0	3.0	6.62	8.44	166.16	38.68	4.44	2.14	26.17	15.47	33.15	17.22
	127.0	50.0	3.6	7.87	10.03	194.74	45.02	4.41	2.12	30.67	18.01	39.1	20.24
	127.0	50.0	4.6	11.69	14.89	276.33	62.46	4.31	2.05	43.52	24.98	56.65	29.03
140x80	140.0	80.0	4.0	12.99	16.55	429.6	180.42	5.1	3.3	61.37	45.1	75.51	51.31
	140.0	80.0	5.0	15.98	20.36	517.06	215.94	5.04	3.26	73.87	53.99	91.8	62.23
	140.0	80.0	6.0	18.87	24.03	597	247.96	4.98	3.21	85.29	61.99	107.08	72.42
	140.0	80.0	6.3	19.71	25.11	619.55	256.91	4.97	3.2	88.51	64.23	111.47	75.34
	140.0	80.0	8.0	24.33	30.99	735.24	302.12	4.87	3.12	105.03	75.53	134.68	90.67
145x82	145.0	82.0	4.0	13.43	17.11	476.35	196.94	5.28	3.39	65.7	48.03	80.82	54.53
	145.0	82.0	4.8	15.92	20.28	555.16	228.5	5.23	3.36	76.57	55.73	94.93	63.93
	145.0	82.0	5.0	16.53	21.06	574.05	236.02	5.22	3.35	79.18	57.56	98.35	66.2
	145.0	82.0	5.4	17.74	22.6	610.85	250.59	5.2	3.33	84.26	61.12	105.06	70.66
150x100	150.0	100.0	4.0	13.62	17.35	509.32	191.98	5.42	3.33	67.91	48	83.98	54.35
	150.0	100.0	5.0	16.77	21.36	614.04	230.03	5.36	3.28	81.87	57.51	102.22	65.98
	150.0	100.0	6.0	19.81	25.23	710.2	264.42	5.31	3.24	94.69	66.11	119.39	76.86
	150.0	100.0	6.3	20.7	26.37	737.41	274.06	5.29	3.22	98.32	68.51	124.34	79.98
	150.0	100.0	8.0	25.59	32.59	877.81	322.94	5.19	3.15	117.04	80.74	150.57	96.43
	150.0	100.0	10.0	30.95	39.43	1014.05	368.81	5.07	3.06	135.21	92.02	177.64	113.17
	150.0	100.0	12.0	35.9	45.74	1120.74	403.26	4.95	2.97	149.43	100.82	200.72	127.21
	150.0	100.0	12.5	37.08	47.23	1143.01	410.23	4.92	2.95	152.4	102.56	205.89	130.31
160x80	160.0	80.0	4.0	14.25	18.15	597.71	203.54	5.74	3.35	74.71	50.89	92.86	57.39
	160.0	80.0	5.0	17.55	22.36	721.69	244.11	5.68	3.3	90.21	61.03	113.15	69.73
	160.0	80.0	6.0	20.75	26.43	836.01	280.89	5.62	3.26	104.5	70.22	132.31	81.3
	160.0	80.0	6.3	21.69	27.63	868.46	291.21	5.61	3.25	108.56	72.8	137.84	84.63
	160.0	80.0	8.0	26.84	34.19	1036.68	343.77	5.51	3.17	129.59	85.94	167.27	102.19
	160.0	80.0	10.0	32.52	41.43	1201.74	393.48	5.39	3.08	150.22	98.37	197.85	120.17
	160.0	80.0	12.5	39.04	49.73	1360.95	439.03	5.23	2.97	170.12	109.76	230.12	138.74
172x92	172.0	92.0	4.0	15.75	20.07	783.54	297.66	6.25	3.85	91.11	64.71	112.1	72.79
	172.0	92.0	4.8	18.71	23.83	917.13	346.91	6.2	3.82	106.64	75.41	132.07	85.61
	172.0	92.0	5.0	19.43	24.76	949.37	358.72	6.19	3.81	110.39	77.98	136.94	88.72
	172.0	92.0	5.4	20.88	26.6	1012.47	381.74	6.17	3.79	117.73	82.99	146.54	94.85

HS	DEPTH	WIDTH	THICKNESS	WEIGHT	AREA	MOMENT OF INERTIA		RADIUS OF		ELASTIC MODULUS		PLASTIC MODULUS	
DXB	D	D			OF SECTION	ABOUT		ABOUT		ABOUT		ABOUT	
						X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y
180x100	180.0	100.0	4.0	16.76	21.35	926.04	373.89	6.59	4.18	102.89	74.78	125.88	84.02
	180.0	100.0	5.0	20.69	26.36	1124.2	451.77	6.53	4.14	124.91	90.35	154.01	102.59
	180.0	100.0	6.0	31.23	31.23	1309.61	523.83	6.48	4.1	145.51	104.77	180.82	120.21
	180.0	100.0	6.3	32.67	32.67	1362.79	543.34	6.46	4.08	151.42	108.87	188.61	125.32
	180.0	100.0	8.0	40.59	40.59	1643.36	651.3	6.36	4.01	182.6	130.26	230.58	152.7
	180.0	100.0	10.0	49.43	49.43	1929.6	757.94	6.25	3.92	214.4	151.59	275.27	181.59
200x100	200.0	100.0	4.0	18.01	22.95	1200	411	7.23	4.23	119.97	82.16	148.03	91.7
	200.0	100.0	5.0	22.26	28.36	1459	497	7.17	4.19	145.93	99.39	181.36	112.09
	200.0	100.0	6.0	26.4	33.63	1703	577	7.12	4.14	170.33	115.38	213.25	131.49
	200.0	100.0	6.3	27.63	35.19	1774	600	7.1	4.13	177.36	119.95	222.54	137.13
	200.0	100.0	8.0	34.38	43.79	2146	719	7	4.05	214.62	143.84	272.76	167.42
	200.0	100.0	10.0	41.94	53.43	2531	839	6.88	3.96	253.1	167.85	326.99	199.59
250x150	250.0	150.0	5.0	30.11	38.36	3304	1508	9.28	6.27	264.33	201.06	319.75	225.47
	250.0	150.0	6.0	35.82	45.63	3886	1768	9.23	6.22	310.84	235.78	378.03	266.27
	250.0	150.0	6.3	37.52	47.79	4055	1844	9.21	6.21	324.4	245.86	395.13	278.24
	250.0	150.0	8.0	46.94	59.79	4972	2250	9.12	6.13	397.78	300.06	489.04	343.69
	250.0	150.0	10.0	57.64	73.43	5960	2683	9.01	6.04	476.82	357.72	592.74	415.64



**STEEL TUBES FOR STRUCTURAL PURPOSES
CONFORMING TO IS 1161 :2014**

Grade Yst 210 , Yst 240, Yst 310

N.B.	OUT SIDE DIAMETER	THICKNESS	NORMAL WEIGHT BLACK TUBES PLAIN END		CALCUATED NORMAL WEIGHT GALVANIZED TUBES PLAIN END	
			KG/M	M/TONE	KG/M	M/TONE
15	21.3	2	0.947	1056	1	1003
		2.6	1.21	826	1.26	794
		3.2	1.44	694	1.49	671
20	26.9	2.3	1.38	725	1.43	699
		2.6	1.56	641	1.61	621
		3.2	1.87	535	1.92	521
25	33.7	2.6	1.98	505	2.03	493
		3.2	2.41	415	2.46	407
		4	2.93	341	2.98	336
32	42.4	2.6	2.54	394	2.62	382
		3.2	3.1	323	3.18	314
		4	3.79	264	3.87	258
40	48.3	2.9	3.23	310	3.34	299
		3.2	3.56	281	3.67	272
		4	4.37	229	4.48	236
50	60.3	2.9	4.08	245	4.2	238
		3.6	5.03	199	5.15	194
		4.5	6.19	162	6.31	158
65	76.1	3.2	5.71	175	5.86	171
		3.6	6.42	156	6.57	152
		4.5	7.93	126	8.1	123
80	88.9	3.2	6.72	149	6.9	145
		4	8.36	120	8.54	117
		4.8	9.9	101	10.08	99
90	101.6	3.6	8.7	115	8.97	111
		4	9.63	144	7.2	139
		4.8	11.5	87	11.77	85
100	114.3	3.6	9.75	103	9.97	100
		4.5	12.2	82	12.42	81
		5.4	14.5	69	14.72	68
110	127	4.5	13.6	74	13.9	72
		4.8	14.5	69	14.8	68
		5.4	16.2	62	14.8	61
125	139.7	4.5	15	67	15.25	66
		4.8	15.9	63	16.15	62
		5.4	17.9	56	18.15	55
135	152.4	4.5	16.4	61	16.78	60
		4.8	17.5	57	17.88	56
		5.4	19.6	51	19.98	55
150	165.1	4.5	17.8	56	18.2	55
		4.8	18.9	53	19.3	52
		5.4	21.3	47	21.7	46

N.B.	OUT SIDE DIAMETER	THICKNESS	NORMAL WEIGHT BLACK TUBES PLAIN END		CALCUTED NORMAL WEIGHT GALVANIZED TUBES PLAIN END	
MM	MM	MM	KG/M	M/TONE	KG/M	M/TONE
150	168.3	4.5	18.2	55	18.66	54
		4.8	19.4	52	19.88	50
		5.4	21.7	46	22.24	45
		6.3	25.2	40	41	24
170	177.8	4	17.14	51	17.25	50
		5	21.31	48	21.4	57
		6	25.42	42	25.64	41
		6.3	26.65	36	26.78	35
175	193.7	4	18.71	49	18.75	48
		5	23.27	45	23.31	44
		6	27.77	38	27.82	37
		6.3	29.12	30	29.17	29
200	219.1	4	21.22	40	21.26	39
		5	26.4	39	26.48	38
		6	31.53	30	31.57	29
		6.3	33.06	26	33.1	25
225	244.5	5	29.53	30	29.64	29
		6	35.29	26	35.35	25
		6.3	37.01	24	37.26	23
		8	46.66	22	46.78	21
250	273	5	33.05	24	33.26	23
		6	39.51	22	39.7	21
		6.3	41.44	20	41.6	19
		8	52.28	16	52.41	15

TOLERANCES

SECTION TYPE	GRADE	OUT SIDE DIMENSION	THICKNESS	SQUARE NESS	CORNER RADIUS	WEIGHT INDIVIDUAL LENGTHS	WEIGHT ON LOT OF 10 MT	CUSTOMIZE D OFFER
RHS/SHS IS 4923	Yst- 210	±1%with a minimum of ±0.50 mm	±7.5%	90 deg ±2deg.	3t max	-8%,+10%	±7.5%	Length-4 M to 12 M Thickness-1.4 MM to 8.0 MM
	Yst- 240							
	Yst- 310							
RHS/SHS IS18573	Yst- 240	±1%with a minimum of ±0.50 mm	±10%					
CHS IS-1161	Yst- 210	OD upto and incl48.3+0.4/- 0.8 mm;over 48.3±1%	+no limited	NA	NA			
	Yst- 240		-10.00%					
	Yst- 310							

DIMENSIONS AND DEPTH PROPERTIES OF SQUARE HOLLOW SECTIONS IS 18573:2024 GRADE YST-240

SHS	DEPTH	WIDTH	THICKNESS	WEIGHT	AREA	MOMENT OF	RADIUS OF	ELASTIC	PLASTIC
DXD	D	D			OF SECTION	INERTIA	GYRATION	MODULUS	MODULUS
MM	MM	MM			CM2	CM4	CM	CM3	CM3
20.0X20.0	20.0	20.0	0.9	0.52	0.67	0.4	0.77	0.4	0.47
	20.0	20.0	1.2	0.68	0.87	0.5	0.76	0.5	0.6
	20.0	20.0	1.4	0.78	0.99	0.56	0.75	0.56	0.68
	20.0	20.0	1.6	0.87	1.11	0.61	0.74	0.61	0.75
	20.0	20.0	1.8	0.96	1.23	0.65	0.73	0.65	0.82
	20.0	20.0	1.9	1.01	1.28	0.67	0.72	0.67	0.85
25.0X25.0	25.0	25.0	0.9	0.66	0.85	0.81	0.98	0.65	0.76
	25.0	25.0	1.2	0.87	1.11	1.03	0.96	0.82	0.97
	25.0	25.0	1.4	1	1.27	1.16	0.95	0.92	1.11
	25.0	25.0	1.6	1.12	1.43	1.28	0.94	1.02	1.24
	25.0	25.0	1.8	1.25	1.59	1.38	0.93	1.11	1.35
	25.0	25.0	1.9	1.31	1.66	1.43	0.93	1.15	1.41
30.0X30.0	30.0	30.0	1.2	1.06	1.35	1.83	1.17	1.22	1.44
	30.0	30.0	1.4	1.22	1.55	2.08	1.16	1.39	1.64
	30.0	30.0	1.6	1.37	1.75	2.31	1.15	1.54	1.84
	30.0	30.0	1.8	1.53	1.95	2.52	1.14	1.68	2.03
	30.0	30.0	1.9	1.6	2.04	2.62	1.13	1.75	2.12
32.0X32.0	32.0	32.0	1.2	1.13	1.44	2.25	1.25	1.41	1.65
	32.0	32.0	1.4	1.31	1.66	2.55	1.24	1.6	1.89
	32.0	32.0	1.6	1.48	1.88	2.84	1.23	1.78	2.12
	32.0	32.0	1.8	1.64	2.09	3.11	1.22	1.95	2.33
	32.0	32.0	1.9	1.72	2.19	3.24	1.22	2.03	2.44
35.0X35.0	35.0	35.0	1.2	1.24	1.59	2.98	1.37	1.7	1.99
	35.0	35.0	1.4	1.44	1.83	3.4	1.36	1.94	2.29
	35.0	35.0	1.6	1.63	2.07	3.79	1.35	2.16	2.57
	35.0	35.0	1.8	1.81	2.31	4.16	1.34	2.38	2.84
	35.0	35.0	1.9	1.9	2.42	4.34	1.34	2.48	2.97
38.0X38.0	38.0	38.0	1.2	1.36	1.73	3.86	1.49	2.03	2.37
	38.0	38.0	1.4	1.57	2	4.41	1.48	2.32	2.72
	38.0	38.0	1.6	1.78	2.26	4.92	1.47	2.59	3.06
	38.0	38.0	1.8	1.98	2.52	5.42	1.47	2.85	3.39
	38.0	38.0	1.9	2.08	2.65	5.65	1.46	2.97	3.54
40.0X40.0	40.0	40.0	1.2	1.43	1.83	4.53	1.58	2.27	2.64
	40.0	40.0	1.4	1.66	2.11	5.18	1.57	2.59	3.03
	40.0	40.0	1.6	1.88	2.39	5.79	1.56	2.9	3.41
	40.0	40.0	1.8	2.09	2.67	6.38	1.55	3.19	3.78
	40.0	40.0	1.9	2.2	2.8	6.66	1.54	3.33	3.96
45.0X45.0	45.0	45.0	1.2	1.62	2.07	6.54	1.78	2.91	3.37
	45.0	45.0	1.4	1.88	2.39	7.49	1.77	3.33	3.88
	45.0	45.0	1.6	2.13	2.71	8.41	1.76	3.74	4.38
	45.0	45.0	1.8	2.38	3.03	9.28	1.75	4.13	4.86
	45.0	45.0	1.9	2.5	3.18	9.7	1.75	4.31	5.09
49.5X49.5	49.5	49.5	1.2	1.79	2.28	8.8	1.96	3.55	4.11
	49.5	49.5	1.4	2.07	2.64	10.09	1.95	4.08	4.74
	49.5	49.5	1.6	2.35	3	11.34	1.94	4.58	5.35
	49.5	49.5	1.8	2.63	3.35	12.5	1.93	5.07	5.94
	49.5	49.5	1.9	2.77	3.52	13.1	1.93	5.3	6.23
50.0X50.0	50.0	50.0	1.2	1.81	2.31	9.07	1.98	3.63	4.2
	50.0	50.0	1.4	2.1	2.67	10.41	1.97	4.17	4.84
	50.0	50.0	1.6	2.38	3.03	11.7	1.96	4.68	5.46
	50.0	50.0	1.8	2.66	3.39	12.9	1.96	5.18	6.07
	50.0	50.0	1.9	2.8	3.56	13.6	1.95	5.42	6.37
60.0X60.0	60.0	60.0	1.2	2.19	2.79	15.9	2.39	5.31	6.11
	60.0	60.0	1.4	2.54	3.23	18.3	2.38	6.12	7.06
	60.0	60.0	1.6	2.88	3.67	20.7	2.37	6.89	7.99
	60.0	60.0	1.8	3.22	4.11	22.9	2.36	7.65	8.9
	60.0	60.0	1.9	3.39	4.32	24.1	2.36	8.02	9.35

SHS	DEPTH	WIDTH	THICKNESS	WEIGHT	AREA	MOMENT OF	RADIUS OF	ELASTIC	PLASTIC
DXD	D	D			OF SECTION	INERTIA	GYRATION	MODULUS	MODULUS
MM	MM	MM	MM	KG/M	CM2	CM4	CM	CM3	CM3
63.5X63.5	63.5	63.5	1.2	2.32	2.95	19	2.54	5.98	6.87
	63.5	63.5	1.4	2.69	3.43	21.9	2.53	6.89	7.94
	63.5	63.5	1.6	3.06	3.9	24.7	2.52	7.77	8.99
	63.5	63.5	1.8	3.42	4.36	27.4	2.51	8.63	10.02
	63.5	63.5	1.9	3.6	4.59	28.7	2.5	9.05	10.53
	63.5	63.5	2.4	4.49	5.72	35.1	2.48	11.05	12.98
70.0X70.0	70.0	70.0	1.2	2.56	3.27	25.6	2.8	7.32	8.39
	70.0	70.0	1.4	2.98	3.79	29.5	2.79	8.44	9.71
	70.0	70.0	1.6	3.38	4.31	33.4	2.78	9.53	11
	70.0	70.0	1.8	3.79	4.83	37.1	2.77	10.6	12.27
	70.0	70.0	1.9	3.99	5.08	38.9	2.77	11.12	12.9
	70.0	70.0	2.4	4.98	6.34	47.7	2.74	13.63	15.94
72.0X72.0	72.0	72.0	1.2	2.64	3.36	27.9	2.88	7.76	8.89
	72.0	72.0	1.4	3.06	3.9	32.2	2.87	8.95	10.29
	72.0	72.0	1.6	3.49	4.44	36.4	2.86	10.11	11.66
	72.0	72.0	1.8	3.9	4.97	40.5	2.85	11.24	13.01
	72.0	72.0	1.9	4.11	5.23	42.5	2.85	11.8	13.68
	72.0	72.0	2.4	5.13	6.53	52.1	2.82	14.48	16.92
75.0X75.0	75.0	75.0	1.2	2.75	3.51	31.65	3	8.44	9.67
	75.0	75.0	1.4	3.2	4.07	36.52	3	9.74	11.19
	75.0	75.0	1.6	3.64	4.63	41.29	2.99	11.01	12.69
	75.0	75.0	1.8	4.07	5.19	45.94	2.98	12.25	14.16
	75.0	75.0	1.9	4.29	5.46	48.23	2.97	12.86	14.89
	75.0	75.0	2.5	5.56	7.09	61.38	2.94	16.37	19.12
	75.0	75.0	2.9	6.4	8.15	69.62	2.92	18.57	21.82
80.0X80.0	80.0	80.0	1.2	2.94	3.75	38.57	3.21	9.64	11.03
	80.0	80.0	1.4	3.42	4.35	44.54	3.2	11.13	12.77
	80.0	80.0	1.6	3.89	4.95	50.38	3.19	12.6	14.49
	80.0	80.0	1.8	4.35	5.55	56.1	3.18	14.03	16.18
	80.0	80.0	1.9	4.59	5.84	58.91	3.18	14.73	17.02
	80.0	80.0	2	4.82	6.14	61.7	3.17	15.42	17.85
	80.0	80.0	2.5	5.96	7.59	75.1	3.15	18.79	21.89
88.9X88.9	80.0	80.0	2.9	6.85	8.73	85.4	3.13	21.34	25.01
	88.9	88.9	1.2	3.28	4.17	53.2	3.57	11.98	13.68
	88.9	88.9	1.4	3.81	4.85	61.6	3.56	13.85	15.86
	88.9	88.9	1.6	4.33	5.52	69.7	3.55	15.68	18
	88.9	88.9	1.8	4.86	6.19	77.7	3.54	17.48	20.12
	88.9	88.9	1.9	5.12	6.52	81.6	3.54	18.37	21.16
	88.9	88.9	2	5.38	6.85	85.5	3.53	19.24	22.2
	88.9	88.9	2.5	6.66	8.48	104.5	3.51	23.5	27.29
90.0X90.0	88.9	88.9	2.9	7.66	9.76	118.9	3.49	26.76	31.23
	90.0	90.0	1.2	3.32	4.23	55.3	3.62	12.29	14.03
	90.0	90.0	1.4	3.86	4.91	63.9	3.61	14.2	16.26
	90.0	90.0	1.6	4.39	5.59	72.4	3.6	16.09	18.46
	90.0	90.0	1.8	4.92	6.27	80.7	3.59	17.93	20.63
	90.0	90.0	1.9	5.18	6.6	84.8	3.58	18.84	21.71
	90.0	90.0	2	5.45	6.94	88.9	3.58	19.75	22.78
	90.0	90.0	2.5	6.74	8.59	108.5	3.56	24.12	28
91.5X91.5	90.0	90.0	2.9	7.76	9.89	123.6	3.54	27.47	32.05
	91.5	91.5	1.2	3.37	4.3	58.1	3.68	12.71	14.51
	91.5	91.5	1.4	3.92	5	67.2	3.67	14.7	16.82
	91.5	91.5	1.6	4.46	5.69	76.2	3.66	16.65	19.1
	91.5	91.5	1.8	5	6.37	84.9	3.65	18.56	21.35
	91.5	91.5	1.9	5.27	6.72	89.2	3.65	19.51	22.46
	91.5	91.5	2	5.54	7.06	93.5	3.64	20.44	23.57
	91.5	91.5	2.5	6.86	8.74	114.3	3.62	24.98	28.98
100.0X100.0	91.5	91.5	2.9	7.9	10.06	130.2	3.6	28.45	33.18
	100.0	100.0	1.2	3.69	4.71	76.2	4.03	15.25	17.39
	100.0	100.0	1.4	4.29	5.47	88.2	4.02	17.65	20.17
	100.0	100.0	1.6	4.89	6.23	100	4.01	20	22.91
	100.0	100.0	1.8	5.48	6.99	111.6	4	22.32	25.62
	100.0	100.0	1.9	5.78	7.36	117.3	3.99	23.47	26.97
	100.0	100.0	2	6.07	7.74	123	3.99	24.6	28.3
	100.0	100.0	2.5	7.53	9.59	150.6	3.96	30.12	34.86
	100.0	100.0	2.9	8.67	11.05	171.85	3.94	34.37	39.95

SHS	DEPTH	WIDTH	THICKNESS	WEIGHT	AREA	MOMENT OF	RADIUS OF	ELASTIC	PLASTIC
DXD	D	D			OF SECTION	INERTIA	GYRATION	MODULUS	MODULUS
MM	MM	MM	MM	KG/M	CM2	CM4	CM	CM3	CM3
113.5X113.5	113.5	113.5	1.6	5.57	7.1	147.38	4.56	25.97	29.68
	113.5	113.5	1.8	6.25	7.96	164.62	4.55	29.01	33.22
	113.5	113.5	1.9	6.58	8.39	173.15	4.54	30.51	34.97
	113.5	113.5	2	6.92	8.82	181.61	4.54	32	36.72
	113.5	113.5	2.5	8.59	10.94	222.95	4.51	39.29	45.3
	113.5	113.5	2.9	9.9	12.61	254.89	4.5	44.91	52
120.0X120.0	120.0	120.0	1.8	6.62	8.43	195.24	4.81	32.54	37.23
	120.0	120.0	1.9	6.97	8.88	205.39	4.81	34.23	39.2
	120.0	120.0	2	7.33	9.34	215.47	4.8	35.91	41.16
	120.0	120.0	2.5	9.1	11.59	264.78	4.78	44.13	50.82
	120.0	120.0	2.9	10.49	13.37	302.96	4.76	50.49	58.37
125.0X125.0	125.0	125.0	2	7.64	9.74	244.2	5.01	39.07	44.75
	125.0	125.0	2.5	9.49	12.09	300.3	4.98	48.05	55.28
	125.0	125.0	2.9	10.95	13.95	343.8	4.97	55.01	63.52
132.0X132.0	132.0	132.0	3.2	12.73	16.22	444.82	5.24	67.4	77.92
	132.0	132.0	3.6	14.25	18.16	494.19	5.22	74.88	86.87
	132.0	132.0	3.9	15.38	19.59	530.34	5.2	80.35	93.47
140.0X140.0	140.0	140.0	3.2	13.54	17.25	533.7	5.56	76.25	88.01
	140.0	140.0	3.6	15.16	19.31	593.4	5.54	84.77	98.17
	140.0	140.0	3.9	16.36	20.84	637.2	5.53	91.03	105.67
150.0X150.0	150.0	150.0	3.2	14.54	18.53	660.6	5.97	88.08	101.49
	150.0	150.0	3.6	16.29	20.75	735.1	5.95	98.01	113.28
	150.0	150.0	3.9	17.58	22.4	789.8	5.94	105.3	121.99
160.0X160.0	160.0	160.0	3.2	15.55	19.81	806.1	6.38	100.77	115.93
	160.0	160.0	3.6	17.42	22.19	897.6	6.36	112.2	129.46
	160.0	160.0	3.9	18.81	23.96	964.9	6.35	120.62	139.47
180.0X180.0	180.0	180.0	3.6	19.68	25.07	291.2	7.18	143.47	165.07
	180.0	180.0	3.9	21.26	27.08	389.3	7.16	154.37	177.94

STEEL HOLLOW SECTIONS FOR STRUCTURAL USE (RHS)

DIMENSIONS AND DEPTH PROPERTIES OF RECTANGULAR HOLLOW SECTIONS IS
18573:2024 GRADE YST- 240

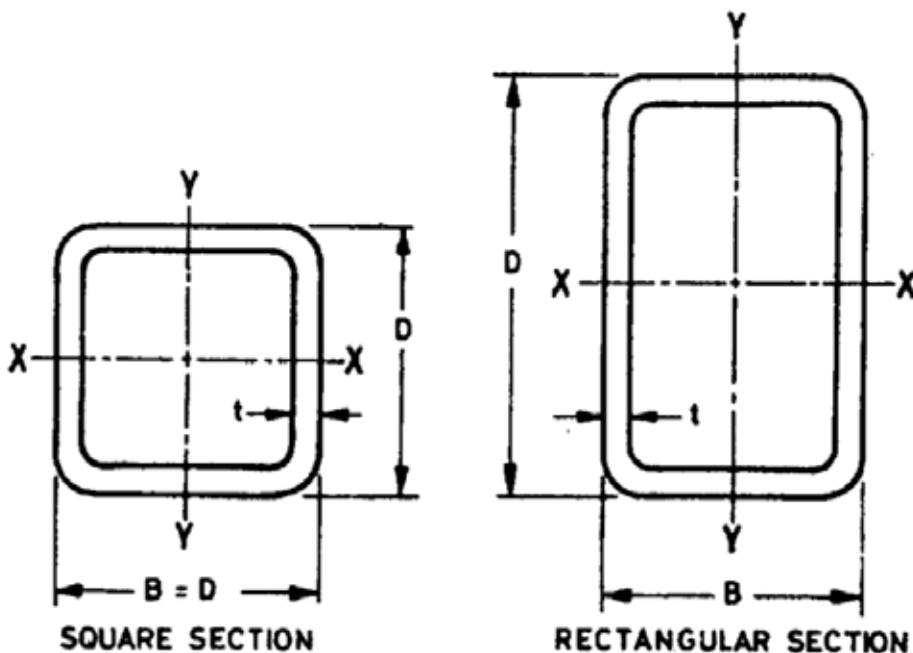
HS DXB	DEPTH D	WIDTH D	THICKNESS	WEIGHT	AREA	MOMENT OF INERTIA		RADIUS OF GYRATION		ELASTIC MODULUS		PLASTIC MODULUS	
					OF SECTION	ABOUT		ABOUT		ABOUT		ABOUT	
						X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y
40.0X20.0	40	20	1.2	1.06	1.35	2.7	0.92	1.42	0.83	1.36	0.92	1.71	1.05
	40	20	1.4	1.22	1.55	3.1	1.04	1.41	0.82	1.55	1.04	1.95	1.2
	40	20	1.6	1.37	1.75	3.4	1.15	1.4	0.81	1.72	1.15	2.18	1.34
	40	20	1.8	1.53	1.95	3.8	1.25	1.39	0.8	1.88	1.25	2.4	1.47
	40	20	1.9	1.6	2.04	3.9	1.3	1.38	0.8	1.95	1.3	2.51	1.54
50.0X25.0	50	25	1.2	1.34	1.71	5.5	1.88	1.8	1.05	2.2	1.5	2.73	1.69
	50	25	1.4	1.55	1.97	6.3	2.13	1.78	1.04	2.51	1.71	3.14	1.94
	50	25	1.6	1.75	2.23	7.02	2.37	1.77	1.03	2.81	1.9	3.53	2.17
	50	25	1.8	1.95	2.49	7.72	2.6	1.76	1.02	3.09	2.08	3.9	2.4
	50	25	1.9	2.05	2.61	8.06	2.71	1.76	1.02	3.22	2.16	4.08	2.51
50.0X30.0	50	30	1.2	1.43	1.83	6.2	2.83	1.85	1.25	2.49	1.89	3.02	2.13
	50	30	1.4	1.66	2.11	7.1	3.23	1.83	1.24	2.84	2.15	3.48	2.45
	50	30	1.6	1.88	2.39	8	3.6	1.82	1.23	3.18	2.4	3.91	2.75
	50	30	1.8	2.09	2.67	8.8	3.96	1.81	1.22	3.51	2.64	4.33	3.04
	50	30	1.9	2.2	2.8	9.2	4.13	1.81	1.21	3.66	2.75	4.54	3.19
60.0X40.0	60	40	1.2	1.81	2.31	11.8	6.34	2.26	1.66	3.93	3.17	4.7	3.57
	60	40	1.4	2.1	2.67	13.5	7.26	2.25	1.65	4.51	3.63	5.42	4.11
	60	40	1.6	2.38	3.03	15.2	8.15	2.24	1.64	5.07	4.08	6.12	4.64
	60	40	1.8	2.66	3.39	16.85	9.01	2.23	1.63	5.62	4.5	6.81	5.15
	60	40	1.9	2.8	3.56	17.64	9.42	2.22	1.63	5.88	4.71	7.14	5.41
66.0X33.0	66	33	1.2	1.79	2.28	13.06	4.48	2.39	1.4	3.96	2.72	4.87	3.02
	66	33	1.4	2.07	2.64	14.99	5.13	2.38	1.39	4.54	3.11	5.61	3.48
	66	33	1.6	2.35	3	16.85	5.74	2.37	1.38	5.11	3.48	6.34	3.92
	66	33	1.8	2.63	3.35	18.64	6.33	2.36	1.37	5.65	3.84	7.04	4.35
	66	33	1.9	2.77	3.52	19.51	6.62	2.35	1.37	5.91	4.01	7.39	4.56
70.0X30.0	70	30	1.2	1.81	2.31	14.25	3.83	2.49	1.29	4.07	2.55	5.09	2.82
	70	30	1.4	1.66	2.11	7.11	3.23	1.83	1.24	2.84	2.15	3.48	2.45
	70	30	1.6	1.88	2.39	7.95	3.6	1.82	1.23	3.18	2.4	3.91	2.75
	70	30	1.8	2.09	2.67	8.76	3.96	1.81	1.22	3.51	2.64	4.33	3.04
	70	30	1.9	2.2	2.8	9.15	4.13	1.81	1.21	3.66	2.75	4.54	3.19
70.0X50.0	70	50	1.2	2.19	2.79	19.9	11.93	2.68	2.07	5.69	4.77	6.74	5.37
	70	50	1.4	2.54	3.23	22.9	13.72	2.66	2.06	6.56	5.49	7.79	6.2
	70	50	1.6	2.88	3.67	25.9	15.45	2.65	2.05	7.39	6.18	8.81	7.01
	70	50	1.8	3.22	4.11	28.7	17.13	2.64	2.04	8.2	6.85	9.82	7.8
	70	50	1.9	3.39	4.32	30.1	17.95	2.64	2.04	8.6	7.18	10.31	8.2

HS	DEPTH	WIDTH	THICKNESS	WEIGHT	AREA	MOMENT OF INERTIA		RADIUS OF GYRATION		ELASTIC MODULUS		PLASTIC MODULUS	
DXB	D	D			OF SECTION	ABOUT		ABOUT		ABOUT		ABOUT	
						X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y
80.0X40.0	80	40	1.2	2.19	2.79	23.7	8.15	2.91	1.71	5.92	4.07	7.25	4.5
	80	40	1.4	2.54	3.23	27.2	9.35	2.9	1.7	6.81	4.68	8.37	5.19
	80	40	1.6	2.88	3.67	30.71	10.52	2.89	1.69	7.68	5.26	9.47	5.87
	80	40	1.8	3.22	4.11	34.08	11.64	2.88	1.68	8.52	5.82	10.55	6.53
	80	40	1.9	3.39	4.32	35.73	12.18	2.88	1.68	8.93	6.09	11.08	6.85
80.0X50.0	80	50	1.2	2.37	3.03	27.39	13.36	3.01	2.1	6.85	5.34	8.19	5.95
	80	50	1.4	2.76	3.51	31.56	15.37	3	2.09	7.89	6.15	9.47	6.88
	80	50	1.6	3.13	3.99	35.63	17.33	2.99	2.08	8.91	6.93	10.73	7.78
	80	50	1.8	3.51	4.47	39.59	19.22	2.98	2.07	9.9	7.69	11.96	8.67
	80	50	1.9	3.69	4.7	41.53	20.15	2.97	2.07	10.38	8.06	12.57	9.11
80.0X60.0	80	60	1.2	2.56	3.27	31.1	20.09	3.09	2.48	7.78	6.7	9.14	7.52
	80	60	1.4	2.98	3.79	35.9	23.15	3.08	2.47	8.97	7.72	10.57	8.7
	80	60	1.6	3.38	4.31	40.5	26.14	3.07	2.46	10.14	8.71	11.98	9.86
	80	60	1.8	3.79	4.83	45.1	29.04	3.06	2.45	11.27	9.68	13.37	11
	80	60	1.9	3.99	5.08	47.3	30.47	3.05	2.45	11.83	10.16	14.05	11.56
90.0X50.0	90	50	1.2	2.56	3.27	36.4	14.79	3.34	2.13	8.08	5.92	9.77	6.54
	90	50	1.4	2.98	3.79	41.9	17.03	3.33	2.12	9.32	6.81	11.3	7.56
	90	50	1.6	3.38	4.31	47.38	19.2	3.32	2.11	10.53	7.68	12.8	8.56
	90	50	1.8	3.79	4.83	52.69	21.32	3.3	2.1	11.71	8.53	14.28	9.54
	90	50	1.9	3.99	5.08	55.3	22.35	3.3	2.1	12.29	8.94	15.01	10.02
96.0X48.0	96	48	1.2	2.64	3.36	41.4	14.31	3.51	2.06	8.63	5.96	10.54	6.55
	96	48	1.4	3.06	3.9	47.8	16.47	3.5	2.05	9.96	6.86	12.2	7.57
	96	48	1.6	3.49	4.44	54.03	18.57	3.49	2.05	11.26	7.74	13.82	8.58
	96	48	1.8	3.9	4.97	60.11	20.61	3.48	2.04	12.52	8.59	15.42	9.56
	96	48	1.9	4.11	5.23	63.09	21.61	3.47	2.03	13.14	9	16.21	10.04
100.0X40.0	100	40	1.2	2.56	3.27	41.1	9.95	3.55	1.75	8.22	4.98	10.27	5.43
	100	40	1.4	2.98	3.79	47.4	11.44	3.54	1.74	9.48	5.72	11.88	6.27
	100	40	1.6	3.38	4.31	53.5	12.88	3.52	1.73	10.71	6.44	13.47	7.1
	100	40	1.8	3.79	4.83	59.5	14.27	3.51	1.72	11.91	7.13	15.02	7.9
	100	40	1.9	3.99	5.08	62.5	14.95	3.51	1.71	12.49	7.47	15.79	8.3
	100	40	2	4.19	5.34	65.4	15.61	3.5	1.71	13.07	7.81	16.54	8.69
	100	40	2.4	4.98	6.34	76.6	18.17	3.48	1.69	15.32	9.08	19.51	10.22
100.0X50.0	100	50	1.2	2.75	3.51	46.96	16.22	3.66	2.15	9.39	6.49	11.46	7.12
	100	50	1.4	3.2	4.07	54.21	18.68	3.65	2.14	10.84	7.47	13.26	8.24
	100	50	1.6	3.64	4.63	61.3	21.08	3.64	2.13	12.26	8.43	15.04	9.33
	100	50	1.8	4.07	5.19	68.2	23.41	3.63	2.12	13.64	9.36	16.79	10.41
	100	50	1.9	4.29	5.46	71.6	24.55	3.62	2.12	14.32	9.82	17.65	10.94
	100	50	2	4.5	5.74	75	25.67	3.62	2.12	15	10.27	18.5	11.46
	100	50	2.4	5.35	6.82	88	30.01	3.59	2.1	17.61	12	21.85	13.51
100.0X60.0	100	60	1.2	2.94	3.75	52.82	24.24	3.76	2.54	10.56	8.08	12.64	8.94
	100	60	1.4	3.42	4.35	61.01	27.96	3.74	2.54	12.2	9.32	14.64	10.34
	100	60	1.6	3.89	4.95	69.04	31.6	3.73	2.53	13.81	10.53	16.61	11.73
	100	60	1.8	4.35	5.55	76.89	35.14	3.72	2.52	15.38	11.71	18.55	13.09
	100	60	1.9	4.59	5.84	80.76	36.88	3.72	2.51	16.15	12.29	19.51	13.76
	100	60	2	4.82	6.14	84.58	38.6	3.71	2.51	16.92	12.87	20.46	14.43
	100	60	2.4	5.73	7.3	99.46	45.27	3.69	2.49	19.89	15.09	24.19	17.04
100.0X80.0	100	80	1.2	3.32	4.23	64.5	46.02	3.91	3.3	12.91	11.5	15.02	12.92
	100	80	1.4	3.86	4.91	74.6	53.19	3.9	3.29	14.92	13.3	17.41	14.97
	100	80	1.6	4.39	5.59	84.5	60.22	3.89	3.28	16.91	15.05	19.76	17
	100	80	1.8	4.92	6.27	94.3	67.11	3.88	3.27	18.85	16.78	22.09	19
	100	80	1.9	5.18	6.6	99	70.51	3.87	3.27	19.81	17.63	23.24	19.99
	100	80	2	5.45	6.94	103.8	73.87	3.87	3.26	20.76	18.47	24.38	20.97
	100	80	2.4	6.48	8.26	122.3	86.97	3.85	3.24	24.47	21.74	28.88	24.82
120.0X60.0	120	60	1.2	3.32	4.23	82	28.39	4.41	2.59	13.67	9.46	16.63	10.35
	120	60	1.4	3.86	4.91	94.8	32.77	4.39	2.58	15.81	10.92	19.28	11.98
	120	60	1.6	4.39	5.59	107.4	37.05	4.38	2.57	17.91	12.35	21.89	13.6
	120	60	1.8	4.92	6.27	119.8	41.24	4.37	2.57	19.96	13.75	24.46	15.19
	120	60	1.9	5.18	6.6	125.9	43.3	4.37	2.56	20.98	14.43	25.74	15.97
	120	60	2	5.45	6.94	131.9	45.33	4.36	2.56	21.99	15.11	27	16.75
	120	60	2.4	6.48	8.26	155.5	53.24	4.34	2.54	25.91	17.75	31.97	19.81
120.0X80.0	120	80	1.2	3.69	4.71	98.9	53.47	4.59	3.37	16.49	13.37	19.48	14.81
	120	80	1.4	4.29	5.47	114.5	61.84	4.58	3.36	19.09	15.46	22.6	17.18
	120	80	1.6	4.89	6.23	129.9	70.05	4.57	3.35	21.64	17.51	25.67	19.51
	120	80	1.8	5.48	6.99	144.9	78.12	4.55	3.34	24.16	19.53	28.72	21.81
	120	80	1.9	5.78	7.36	152.4	82.1	4.55	3.34	25.4	20.52	30.22	22.95
	120	80	2	6.07	7.74	159.8	86.04	4.54	3.33	26.63	21.51	31.72	24.09
	120	80	2.4	7.24	9.22	188.7	101.43	4.52	3.32	31.44	25.36	37.62	28.55
	120	80	2.9	8.67	11.05	223.4	119.85	4.5	3.29	37.24	29.96	44.79	33.96
122.0X61.0	122	61	1.2	3.37	4.3	86.3	29.86	4.48	2.64	14.14	9.79	17.2	10.7
	122	61	1.4	3.92	5	99.8	34.48	4.47	2.63	16.35	11.3	19.94	12.4
	122	61	1.6	4.46	5.69	113	38.99	4.46	2.62	18.53	12.78	22.64	14.07
	122	61	1.8	5	6.37	126	43.41	4.45	2.61	20.66	14.23	25.31	15.71
	122	61	1.9	5.27	6.72	132.5	45.58	4.44	2.6	21.72	14.94	26.63	16.53
	122	61	2	5.54	7.06	138.8	47.72	4.44	2.6	22.76	15.65	27.94	17.33
	122	61	2.4	6.6	8.4	163.7	56.06	4.41	2.58	26.83	18.38	33.09	20.5



HS	DEPTH	WIDTH	THICKNESS	WEIGHT	AREA	MOMENT OF INERTIA		RADIUS OF GYRATION		ELASTIC MODULUS		PLASTIC MODULUS	
DXB	D	D			OF SECTION	ABOUT		ABOUT		ABOUT		ABOUT	
						X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y
127.0X50.0	127	50	1.2	3.26	4.15	84.7	20.08	4.52	2.2	13.34	8.03	16.63	8.7
	127	50	1.4	3.79	4.83	97.9	23.15	4.5	2.19	15.42	9.26	19.27	10.08
	127	50	1.6	4.31	5.5	110.9	26.14	4.49	2.18	17.46	10.46	21.88	11.42
	127	50	1.8	4.83	6.16	123.6	29.06	4.48	2.17	19.46	11.62	24.44	12.75
	127	50	1.9	5.09	6.49	129.8	30.49	4.47	2.17	20.45	12.19	25.72	13.4
	127	50	2	5.35	6.82	136	31.9	4.47	2.16	21.43	12.76	26.98	14.05
	127	50	2.4	6.37	8.12	160.2	37.36	4.44	2.15	25.24	14.94	31.93	16.6
	127	50	2.9	7.62	9.71	189.1	43.78	4.41	2.12	29.78	17.51	37.93	19.65
140.0X80.0	140	80	1.6	5.39	6.87	187.66	79.89	5.23	3.41	26.81	19.97	32.23	22.02
	140	80	2	6.7	8.54	231.21	98.21	5.2	3.39	33.03	24.55	39.86	27.21
	140	80	2.9	9.58	12.21	324.42	137.1	5.16	3.35	46.35	34.27	56.41	38.43
	140	80	3.2	10.52	13.41	354	149.36	5.14	3.34	50.58	37.34	61.75	42.03
	140	80	3.6	11.76	14.99	392.4	165.19	5.12	3.32	56.06	41.3	68.71	46.73
	140	80	3.9	12.68	16.16	420.4	176.66	5.1	3.31	60.06	44.17	73.83	50.18
145.0X82.0	145	82	1.6	5.57	7.1	207.5	86.95	5.41	3.5	28.62	21.21	34.42	23.35
	145	82	2	6.92	8.82	255.8	106.94	5.39	3.48	35.28	26.08	42.59	28.86
	145	82	2.9	9.9	12.61	359.3	149.45	5.34	3.44	49.55	36.45	60.33	40.8
	145	82	3.2	10.88	13.85	392.2	162.88	5.32	3.43	54.1	39.73	66.05	44.64
	145	82	3.6	12.16	15.49	434.93	180.22	5.3	3.41	59.99	43.96	73.52	49.65
	145	82	3.9	13.11	16.71	466.1	192.81	5.28	3.4	64.29	47.03	79.01	53.32
150.0X100.0	150	100	1.6	6.15	7.83	256.9	138.76	5.73	4.21	34.25	27.75	40.49	30.78
	150	100	2	7.64	9.74	317	171.03	5.71	4.19	42.27	34.21	50.15	38.1
	150	100	2.9	10.95	13.95	446.7	240.23	5.66	4.15	59.56	48.05	71.19	54.03
	150	100	3.2	12.03	15.33	488.2	262.26	5.64	4.14	65.09	52.45	78	59.18
	150	100	3.6	13.46	17.15	542.1	290.85	5.62	4.12	72.28	58.17	86.92	65.91
	150	100	3.9	14.52	18.5	581.6	311.71	5.61	4.1	77.55	62.34	93.5	70.86
160.0X80.0	160	80	1.6	5.9	7.51	259.2	89.73	5.87	3.46	32.4	22.43	39.42	24.53
	160	80	2	7.33	9.34	319.7	110.38	5.85	3.44	39.97	27.59	48.79	30.33
	160	80	2.9	10.49	13.37	449.8	154.35	5.8	3.4	56.23	38.59	69.2	42.9
	160	80	3.2	11.53	14.69	491.4	168.25	5.78	3.38	61.42	42.06	75.79	46.95
	160	80	3.6	12.9	16.43	545.3	186.21	5.76	3.37	68.17	46.55	84.42	52.23
	160	80	3.9	13.91	17.72	584.7	199.27	5.74	3.35	73.09	49.82	90.76	56.11
172.0X92.0	172	92	3.2	12.73	16.22	642.42	245.11	6.29	3.89	74.7	53.29	91.32	59.4
	172	92	3.6	14.25	18.16	713.91	271.8	6.27	3.87	83.01	59.09	101.81	66.17
	172	92	3.9	15.38	19.59	766.28	291.26	6.25	3.86	89.1	63.32	109.54	71.15
180.0X100.0	180	100	3.2	13.54	17.25	758.1	307.25	6.63	4.22	84.23	61.45	102.43	68.47
	180	100	3.6	15.16	19.31	843.1	341.06	6.61	4.2	93.68	68.21	114.27	76.32
	180	100	3.9	16.36	20.84	905.5	365.76	6.59	4.19	100.61	73.15	123	82.11
200.0X100.0	200	100	3.6	16.29	20.75	1091.42	374.53	7.25	4.25	109.14	74.91	134.29	83.26
	200	100	3.9	17.58	22.4	1172.82	401.8	7.24	4.24	117.28	80.36	144.62	89.6

Grade	Y.S	T.S	%age Elongation (Min.)
	Mpa (min)	Mpa(min.)	
Yst – 240	240	410	10



Steel tubes for water, gas and sewerage purposes

Conforming to IS:3589 / 2001 (grade FE 330 and FE 410)

Outside Diameter mm	Thickness mm	Weight (Plain End)	
		Kg / M	M / Tonne
168.3	2.6	10.6	94
	3.2	13.02	77
	4	16.2	62
	4.5	18.2	55
219.1	2.6	13.9	72
	3.6	19.1	52
	4.5	23.8	42
	6.3	33.1	30
	7	36.61	27
	8	41.64	24
273	3.6	23.9	42
	4	26.5	38
	5	33	30
	6.3	41.4	24
	7	45.92	22
	8	52.28	19

Tolerances

- a. Outside Diameter +/- 0.75%
b. Thickness +/- 10%

c. Length

Unless otherwise specified, length are in single random Length of 4 to 7 meters or double random Length of 7 to 14 meters

Also Available:

Internal Bead Free & Screwed & Socketed
Black & Galvanized Pipes

Chemical Composition

Steel Grade	% C	% Mn (Max)	% P	% S	CE
	(Max)		(Max)	(Max)	(Max)
Fe 330	0.16	1.2	0.04	0.04	-
Fe 410	0.2	1.3	0.04	0.04	0.45

Mechanical Properties

YST	TS	% EL
(MPa) Min	(MPa) Min	(Min)
195	330	20
235	410	18

STEEL TUBES FOR WATER WELLS (CASING PIPES) CONFORMING TO IS : 4270 / 2001

N.B. of Pipe MM	Outside Diameter	Thickness	Nominal Weight Black Tubes Plain End	
			kg/m	m/tonne
100	114.3	5.4	14.5	69
125	141.3	5.4	18.1	55
		7.1	23.5	43
150	168.3	5.4	21.6	46
		7.1	28.2	35
175	193.7	6.4	29.6	34
		8	36.6	27
200	219.1	6.4	33.6	30
		8	41.6	24
225	244.5	7.1	41.6	24
		9	52.3	19
250	273.1	8	52.3	19
		10	64.9	15

A. PHYSICAL PROPERTIES

Grade	Y. S. (min) MPa (kg/mm ²)	T. S. (min) MPa (kg/mm ²)	% age Elongation
Fe410	235	410	15
Fe450	275	450	13

B. TOLERANCE

1	Outside Diameter	1%
2	Thickness	
	Welded tube Up to	15%
	And including 406.4 MM	-12.50%
	Over 406.4 MM outside	15%
	Diameter	-10%
3	Weight	-8%
	Single Tube	10%

EUROPEAN STANDARD FOR STEEL TUBES AND PIPES FOR ORDINARY SERVICES PIPES CONFORMING TO EN : 10255

Nominal Size		Class	Outside Diameter		Thick. (mm)	Weight (Plain End)	Weight (Socketed)	Pcs per Bundle
MM	Inch		Min	Max				
15mm	1/2	L1	21	21.7	2.3	1.08	1.09	169
20mm	3/4	L1	26.4	27.1	2.3	1.39	1.4	127
25mm	1	L1	33.2	34	2.9	2.2	2.22	91
32mm	1 1/4	L1	41.9	42.7	2.9	2.82	2.85	61
40mm	1 1/2	L1	47.8	48.6	2.9	3.24	3.28	61
50mm	2	L1	59.6	60.7	3.2	4.49	4.56	37
65mm	2 1/2	L1	75.2	76.3	3.2	5.73	5.85	24
80mm	3	L1	87.9	89.4	3.6	7.55	7.72	19
100mm	4	L1	113	114.9	4	10.8	11.1	14
15mm	1/2	L2	21	21.4	2	0.947	0.956	169
20mm	3/4	L2	26.4	26.9	2.3	1.38	1.39	127
25mm	1	L2	33.2	33.8	2.6	1.98	2	91
32mm	1 1/4	L2	41.9	42.5	2.6	2.54	2.57	61
40mm	1 1/2	L2	47.8	48.4	2.9	3.23	3.27	61
50mm	2	L2	59.6	60.2	2.9	4.08	4.15	37
65mm	2 1/2	L2	75.2	76	3.2	5.71	5.83	24
80mm	3	L2	87.9	88.7	3.2	6.72	6.89	19
100mm	4	L2	113	113.9	3.6	9.75	10	14
15mm	1/2	L	21	21.7	2.3	1.08	1.09	169
20mm	3/4	L	26.4	27.1	2.3	1.4	1.41	127
25mm	1	L	33.2	34	2.9	2.2	2.22	91
32mm	1 1/4	L	41.9	42.7	2.9	2.82	2.85	61
40mm	1 1/2	L	47.8	48.6	2.9	3.25	3.29	61
50mm	2	L	59.6	60.7	3.2	4.51	4.58	37
65mm	2 1/2	L	75.2	76	3.2	5.75	5.87	24
80mm	3	L	87.9	88.7	3.2	6.76	6.93	19
100mm	4	L	113	113.9	3.6	9.83	10.1	14
125mm	5	L	138.5	140.8	4.5	15	15.5	7
150mm	6	L	163.9	166.5	4.5	17.8	18.4	7
15mm	1/2	M	21	21.8	2.6	1.21	1.22	169
20mm	3/4	M	26.5	27.3	2.6	1.56	1.57	127
25mm	1	M	33.3	34.2	3.2	2.41	2.43	91
32mm	1 1/4	M	42	42.9	3.2	3.1	3.13	61
40mm	1 1/2	M	47.9	48.8	3.2	3.56	3.6	61
50mm	2	M	59.7	60.8	3.6	5.03	5.1	37
65mm	2 1/2	M	75.3	76.6	3.6	6.42	6.54	24
80mm	3	M	88	89.5	4	8.36	8.53	19
100mm	4	M	113.1	115	4.5	12.2	12.5	14
125mm	5	M	138.5	140.8	5	16.6	17.1	7
150mm	6	M	163.9	166.5	5	19.8	20.4	7
15mm	1/2	H	21	21.8	3.2	1.44	1.45	169
20mm	3/4	H	26.5	27.3	3.2	1.87	1.88	127
25mm	1	H	33.3	34.2	4	2.93	2.95	91
32mm	1 1/4	H	42	42.9	4	3.79	3.82	61
40mm	1 1/2	H	47.9	48.8	4	4.37	4.41	61

Nominal Size		Class	Outside Diameter		Thick. (mm)	Weight (Plain End)	Weight (Sockete)	Pcs per Bundle
MM	Inch		Min	Max				
50mm	2	H	59.7	60.8	4.5	6.19	6.26	37
65mm	2 1/2	H	75.3	76.6	4.5	7.93	8.05	24
80mm	3	H	88	89.5	5	10.3	10.5	19
100mm	4	H	113.1	115	5.4	14.5	14.8	10
125mm	5	H	138.5	140.8	5.4	17.9	18.4	7
150mm	6	H	163.9	166.5	5.4	21.3	21.9	7

1. TOLERANCES (OUTSIDE DIAMETER AS PER ABOVE TABLE)

Thickness	Medium	Heavy	Light L	Light L1	Light L2
	±10%	±10%	±10%	-8%	-8%
Weight : ±7.5% for M, H & L series (on lot) and +10%/-8% for L1 & L2 series					

2. MECHANICAL PROPERTIES

Yield Strength	195 MPa (Minimum)
Tensile Strength	320 to 520 Mpa
%Elongation	20% Minimum

3 CHEMICAL COMPOSITION

Carbon	0.20 % Max
Manganese	1.40 % Max
Phosphorous	0.035 % Max
Sulphur	0.030 % Max

SCAFFOLDING PIPES CONFORMING TO BS EN 39

Size	Outside diameter	48.3 mm
Type	Wall thickness (in mm)	Weight in Kg/Mtr
3	3.2	3.56
4	4	4.37

1. TOLERANCES ON DIMENSIONS

Characteristics	Tolerances
External Dimensions	±0.50mm.
Thickness	For -10%
Straightness	0.20% of total length
Mass per unit length	Not less than 7.5% the specified mass on individual lengths

2. MECHANICAL PROPERTIES

Grade	YS (MPa) Min	TS (MPa) Min	% EL (Min)
S235 GT	235	340-520	24

3. CHEMICAL COMPOSITION (%) MAX

C	Si	Mn	P	S	Al
(Max)	(Max)	(Max)	(Max)	(Max)	(Min)
0.2	0.04	1.4	0.04	0.045	0.02

Flatteing Test 1. Flatten upto 75% of tube dia for weld test (Weld at 0°& 90° position)

SCAFFOLDING PIPES CONFORMING TO BS EN 10219 (HIGH- GRADE)

Size	Outside diameter	48.3 mm
Type	Wall thickness (in mm)	Weight in Kg/Mtr
1 1/2"	3.2	3.56

1. TOLERANCES ON DIMENSIONS

Characteristics	Tolerances				
External Dimensions	±1%, with a minimum of ±0.5 mm and a maximum of ±10 mm				
Thickness	For do ≤ 406.4 mm, T ≤ 5mm : ±10%, T > 5mm ± 0.5mm;				
	For do > 406.4 mm: ±10% with a max of ±2 mm				
Out-of-roundness	2% for hollow sections having a diameter to thickness ratio not exceeding				
Straightness	0.20% of total length				
Mass per unit length	± 6% on individual delivered lengths				

2. MECHANICAL PROPERTIES

	YS	TS Min MPa		% EL	Minimum impact energy J		
Grade	Min MPa			(Min)			
		< 3	≥3 ≤40	≤ 40	-20°C	0°C	20°C
S355 J0H	355	510-680	470-630	20	—	27	—

3. CHEMICAL COMPOSITION (%) Max

Grade	C	Si	Mn	P	S	N	CEV
	(Max)	(Max)	(Max)	(Max)	(Max)	(Min)	
S355 J0H	0.22	0.55	1.6	0.035	0.035	0.009	0.45

EUROPEAN STANDARD FOR STEEL TUBES AND PIPES FOR STRUCTURAL PURPOSES
PIPES CONFORMING TO EN : 10219-1&2 CIRCULAR HOLLOW SECTION

SIZE OD (MM)	WALL THICKNESS (mm)										
	2	2.5	3	4	5	6	6.3	8	10	12	12.5
	Mass per unit length (Kg/mtr)										
21.3	0.95	1.16	1.35								
26.9	1.23	1.5	1.77								
33.7	1.56	1.92	2.27								
42.4	1.99	2.46	2.91	3.79							
48.3	2.28	2.82	3.35	4.37	5.34						
60.3	2.88	3.56	4.24	5.55	6.82						
76.1	3.65	4.54	5.41	7.11	8.77	10.4	10.8				
88.9	4.29	5.33	6.36	8.38	10.3	12.3	12.8				
101.6	4.91	6.11	7.29	9.63	11.9	14.1	14.8				
114.3		6.89	8.23	10.9	13.5	16	16.8	21			
139.7			10.1	13.4	16.6	19.8	20.7	26	32		
168.3			12.2	16.2	20.1	24	25.2	31.6	39		
219.1				21.2	26.4	31.5	33.1	41.6	51.6	61.3	63.7
244.5					29.5	35.3	37	46.7	57.8	68.8	71.5
273					33	39.5	41.4	52.3	64.9	77.2	80.3

1. TOLERANCES ON DIMENSIONS

Characteristics	Tolerances
External Dimensions	±1%, with a minimum of ±0.5 mm and a maximum of ±10 mm
Thickness	For do ≤ 406.4 mm, T ≤ 5mm : ±10%, T > 5mm ± 0.5mm; For do > 406.4 mm: ±10% with a max of ±2 mm
Out-of-roundness	2% for hollow sections having a diameter to thickness ratio not exceeding 100
Straightness	0.20% of total length
Mass per unit length	± 6% on individual delivered lengths

2. MECHANICAL PROPERTIES

Grade	YS Min MPa	TS Min MPa		% EL (Min)	Minimum impact energy J		
		< 3	≥ 3 ≤ 40		-20° C	0° C	20° C
S235 JRH	235	360-510	360-510	24	–	–	27
S275 J0H	275	430-580	410-560	20	–	27	–
S275 J2H					27	–	–
S355 J0H	235	510-680	470-630	20	–	27	–
S355 J2H					27	–	–
S355 K2H					40	–	–

3. CHEMICAL COMPOSITION (%) MAX

Grade	C	Si	Mn	P	S	N	CEV
S235 JRH	0.170	–	1.400	0.040	0.040	0.009	0.350
S275 J0H	0.200	–	1.500	0.035	0.035	0.009	0.400
S275 J2H	0.200	–	1.500	0.030	0.030	–	0.400
S355 J0H	0.220	0.550	1.600	0.035	0.035	0.009	0.450
S355 J2H	0.220	0.550	1.600	0.030	0.030	–	0.450
S355 K2H	0.220	0.550	1.600	0.030	0.030	–	0.450

ASTM PIPES

PIPES CONFORMING TO ASTM A - 53 GR A & B

NPS Designator	DN Designator	Outside Diameter		Schedule No.	Thickness		Mass of Plain end Pipe		Hydrostatic Test Pressure		Pieces/ bundle
		Inch	mm		Inch	mm	lb/ft.	Kg/mtr.	Grade A-Mpa	Grade B-Mpa	
½	15	0.84	21.3	40	0.109	2.77	0.85	1.27	4.8	4.8	120
¾	20	1.05	26.7	40	0.113	2.87	1.13	1.69	4.8	4.8	84
1	25	1.315	33.4	40	0.133	3.38	1.68	2.5	4.8	4.8	60
1¼	32	1.66	42.2	40	0.14	3.56	2.27	3.39	8.3	9	42
1½	40	1.9	48.3	40	0.145	3.68	2.72	4.05	8.3	9	36
2	50	2.375	60.3	40	0.154	3.91	3.66	5.44	15.9	17.2	26
2½	65	2.874	73	40	0.203	5.16	5.8	8.63	17.2	17.2	18
3	80	3.5	88.9	40	0.216	5.49	7.58	11.29	15.3	17.2	14
4	100	4.5	114.3	40	0.237	6.02	10.8	16.07	13.1	15.2	10
5	125	5.563	141.3	40	0.258	6.55	14.63	21.77	11.5	13.4	7
6	150	6.625	168.3	40	0.28	7.11	18.99	28.26	10.5	12.3	7
8	200	8.625	219.1	20	0.25	6.35	22.38	33.31	7.2	8.4	---
8	200	8.625	219.1	40	0.322	8.18	28.58	42.55	9.2	10.8	---
10	250	10.75	273.1	20	0.25	6.35	28.06	41.75	5.8	6.8	---
10	250	10.75	273.1	40	0.365	9.27	40.52	60.29	8.4	9.9	---
12	300	12.75	323.9	20	0.25	6.35	33.41	49.71	4.9	5.7	---
12	300	12.75	323.9	30	0.33	8.38	43.81	65.18	6.4	7.5	---
12	300	12.75	323.9	STD	0.375	9.52	49.61	73.78	7.3	8.5	---
12	300	12.75	323.9	40	0.406	10.31	53.57	79.7	7.9	9.2	---
14	350	14	355.6	10	0.25	6.35	36.75	54.69	4.4	5.2	---
14	350	14	355.6	30	0.375	9.52	54.62	81.25	6.6	7.7	---
14	350	14	355.6	40	0.438	11.13	63.5	94.55	7.8	9	---
16	400	16	406.4	10	0.25	6.35	42.09	62.64	3.9	4.5	---
16	400	16	406.4	30	0.375	9.52	62.64	93.17	5.8	6.8	---
16	400	16	406.4	40	0.5	12.7	82.85	123.3	7.7	9	---

1. TOLERANCES ON DIMENSIONS

Outside Diameter	Pipe size upto & including DN 40 +/- 0.4 mm of OD
	Pipe size DN 50 or larger +/- 1% of OD
Thickness	- 12.5% (max) / + Not specified
Weight	+/- 10%

2. TESTING

Online NDT	For Pipes NPS 2 (DN 50) or larger
	Weld seam of each pipe shall be tested by Eddy Currer
Bend Test	For pipe upto & including DN 50
	Bending Angle 90°
	Bending Radius 12 times to the OD of tube (No cracks in body & weld)
Flattening (0° & 90°)	For Pipes over DN 50
	1. Flatten upto 2/3 of OD for ductility of weld
	2. Flatten upto 1/3 of OD for ductility of steel
	3. Full flattening for testing of lamination or unsound material

3. MECHANICAL PROPERTIES

	Grade A	Grade B
Yield Strength	205 Mpa (Min)	240 Mpa (Min)
Tensile Strength	330 Mpa (Min)	415 Mpa (Min)
Elongation	As per ASTM A-53	As per ASTM A-53

4. CHEMICAL COMPOSITION (MAXIMUM %

Grade	Carbon	Manganese	Phosphorus	Sulphur	Copper	Nickel	Chromium	Molybdenum	Vanadium
Grade A	0.25	0.95	0.05	0.045	0.4	0.4	0.4	0.15	0.08
Grade B	0.3	1.2	0.05	0.045	0.4	0.4	0.4	0.15	0.08

$Cu + Ni + Cr + Mb + V < 1\%$

5. GALVANIZING

As per ASTM A-53 with test method ASTM A90/A90M	
Min. of any surface of specimen	0.400Kg/Mtr ² (55 microns approx)
Average of one specimen	0.490Kg/Mtr ² (70 microns approx)
Average of two specimens	0.550Kg/Mtr ² (79 microns approx)

6. MARKING/STENCILING

Online stenciling as per the standard & client requirements

AUSTRALIAN STANDARD FOR STEEL TUBES AND TUBULARS FOR ORDINARY SERVICES PIPES CONFORMING TO AS : 1074

Nominal Size		Class	Outside Diameter		Thick. (mm)	Weight (Plain End) (Kg/mtr.)	Weight (Socketed) (Kg/mtr.)	Pcs per Bundle
MM	Inch		Min	Max				
15	½"	L	21	21.4	2	0.947	0.956	217
20	¾"	L	26.4	26.9	2.3	1.38	1.39	127
25	1"	L	33.2	33.8	2.6	1.98	2	91
32	1¼"	L	41.9	42.5	2.6	2.54	2.57	61
40	1½"	L	47.8	48.4	2.9	3.23	3.27	61
50	2"	L	59.6	60.2	2.9	4.08	4.15	37
65	2½"	L	75.2	76	3.2	5.71	5.83	37
80	3"	L	87.9	88.7	3.2	6.72	6.89	19
100	4"	L	113	113.9	3.6	9.75	10	19
15	½"	M	21.1	21.7	2.6	1.21	1.22	217
20	¾"	M	26.6	27.2	2.6	1.56	1.57	127
25	1"	M	33.4	34.2	3.2	2.41	2.43	91
32	1¼"	M	42.1	42.9	3.2	3.1	3.13	61
40	1½"	M	48	48.8	3.2	3.57	3.61	61
50	2"	M	59.8	60.8	3.6	5.03	5.1	37
65	2½"	M	75.4	76.6	3.6	6.43	6.55	37
80	3"	M	88.1	89.5	4	8.37	8.54	19
100	4"	M	113.3	114.9	4.5	12.2	12.5	19
125	5"	M	138.7	140.6	5	16.6	17.1	13
150	6"	M	164.1	166.1	5	19.7	20.3	10
15	½"	H	21.1	21.7	3.2	1.44	1.45	217
20	¾"	H	26.6	27.2	3.2	1.87	1.88	127
25	1"	H	33.4	34.2	4	2.94	2.96	91
32	1¼"	H	42.1	42.9	4	3.8	3.83	61
40	1½"	H	48	48.8	4	4.38	4.42	61
50	2"	H	59.8	60.8	4.5	6.19	6.26	37
65	2½"	H	75.4	76.6	4.5	7.93	8.05	37
80	3"	H	88.1	89.5	5	10.3	10.5	19
100	4"	H	113.3	114.9	5.4	14.5	14.8	19
125	5"	H	138.7	140.6	5.4	17.9	18.4	13
150	6"	H	164.1	166.1	5.4	21.3	21.9	10

1. TOLERANCES (OUTSIDE DIAMETER AS PER ABOVE TABLE)

Thickness	Light	Medium	Heavy
	-8%	-10%	-10%
	+unlimited	+unlimited	+unlimited
Weight : -8% & +10% (for single tube)			

2. MECHANICAL PROPERTIES

Yield Strength	195 MPa (Minimum)
Tensile Strength	320 to 460 Mpa
%Elongation	20% Minimum

3. CHEMICAL COMPOSITION

Carbon	0.40 % Max
Phosphorous	0.045 % Max
Sulphur	0.045 % Max

Ductility Test	For Tubes upto & including 2"			
Black Tube	Bending angle		180°	
	Bending radius		6 times to the OD of Tube	
	Weld Position		3 O'clock	

Galvanized Tube				
	Bending angle		90°	
	Bending radius		8 times to the OD of Tube	
	Weld Position		3 O'clock	

Ductility Test	For Tubes above 2"				
	1. Flatten upto 75% of tube dia for weld test (Weld at 3 O'clock position)				
	2. Flatten upto 60% of tube dia for raw material test				
Leak Tightness Test	100% Hydrotesting at 5 MPa or online eddy current testing or ultrasonic testing				

Galvanizing Test	As per AS 1650
Threading	As per AS 1722-1



Hot Rolled Coils

PARAMETER	REMARKS
Coil I.D.	490 to 510 mm
Coil O.D.	1000 to 1500 mm
Thickness Range	1.20 to 8.00 mm
Thickness Tolerance	2.50 mm & above : (+) / (-) 0.05
	2.10 mm to 2.49 mm : (+) / (-) 0.06
	1.80 mm to 2.09 mm : (+) / (-) 0.07
	Below 1.80 mm : (+) / (-) 0.10
Width Range	As Rolled : 150 mm to 520 mm , Slitted : 24 mm to 450 mm
Width Tolerance	As Rolled : (-) / (+) 6 mm , Slitted : (+) / (-) 0.50 mm
Cut to Length (CTL)	Minimum : 1000 mm Maximum : 3000 mm
Camber	As per BIS
Coil Condition	The coils will be supplied in as rolled condition without any skin passing, oiling, annealing and normalizing. - Coil may be without tongue, but with fish tail. The edges will be mill edges
Packing	01/02 No. of Circumstantial bands and 01/02 no. of bands through the eye (As per requirement).
Marking	Each coil will have following details marked with paint :-
	1. Coil number
	2. Coil Size:- Width x Thickness

IS 10748 / 2004 GRADES GR-1,2,3,4,5 & 6

Specification	Grade	Chemical Composition					Yield Strength	Ultimate Tensile Strength	Mechanical Properties	
									Elongation %	Internal diameter of bend
		C %max	Mn %max	P %max	S %max	Si %max	Mpa (Min)	Mpa (Min)		
IS:10748/2004	GR-1	0.1	0.5	0.04	0.04	For semi killed Quality Si content shall be 0.08% max	170	290	30	T
	GR-2	0.12	0.6	0.04	0.04		210	330	28	2T
	GR-3	0.16	1.2	0.04	0.04		240	410	25	2T
	GR-4	0.2	1.3	0.04	0.04		275	430	20	3T
	GR-5	0.25	1.3	0.04	0.04		310	490	15	3T
	GR-6	0.25	1.5	0.04	0.04		355	490	15	3T

T = Normal Thickness of test piece.

1. PERMISSIBLE VARIATIONS FOR PRODUCT ANALYSIS

Constituent	Variation Over Specified Limit, Percent Max
Carbon	0.020
Manganese	0.040
Sulphur	0.005
Phosphorus	0.005
Silicon	0.005

CARBON STEELS : IS:1079 / 2009

Specification	Chemical Composition					
	Quality		C %max	Mn %max	P %max	S %max
	Grade	Designation				
IS:1079/2009	HR0	Ordinary	0.250	2.000	0.080	0.050
	HR1	Commercial	0.150	0.600	0.050	0.035
	HR2	General Purpose	0.100	0.450	0.040	0.035
	HR3		0.080	0.400	0.035	0.030
	HR4		0.080	0.350	0.030	0.030

Mechanical Properties				
Tensile Strength Max Mpa	Percentage Elongation after Fracture A Min			
	t≤3		t>3	
	Gauge Length Lo = 80mm	Gauge Length Lo = 50mm	Gauge Length Lo = $5.65\sqrt{S_0}$ mm	Gauge Length Lo = 50mm
	*	*	*	*
440	23	24	28	29
420	25	26	30	31
400	28	29	33	34
380	31	32	36	37

1. PERMISSIBLE VARIATIONS FOR PRODUCT ANALYSIS

SL No.	Constituent	Percentage Limit of Constituent			Variation Over Specified Limit, Percent Max
i)	Carbon	a) Up to and including 0.12			0.020
		b) Above 0.12			0.030
ii)	Manganese	a) Up to and including 0.50			0.030
		b) Above 0.50			0.040
iii)	Sulphur	-			0.005
iv)	Phosphorus	-			0.005

2. PERMISSIBLE VARIATIONS FOR PRODUCT ANALYSIS

SI No.	Constituent	Percentage Limit of Constituent	Variation Over Specified Limit Percentage,Max
i)	Carbon	≤ 0.15	0.020
		> 0.15	0.030
ii)	Manganese	≤ 0.6	0.030
		> 0.60 to ≤ 1.15	0.040
		> 1.15	0.050
iii)	Sulphur	≤ 0.05	0.005
iv)	Phosphorus	≤ 0.05	0.005
		> 0.05	0.010
v)	Silicon	≤ 0.6	0.030
		> 0.60	0.060
vi)	Copper	≤ 0.35	0.030
Vii)	Micro Alloy	-	Subject to mutual agreement between the purchaser and the supplier

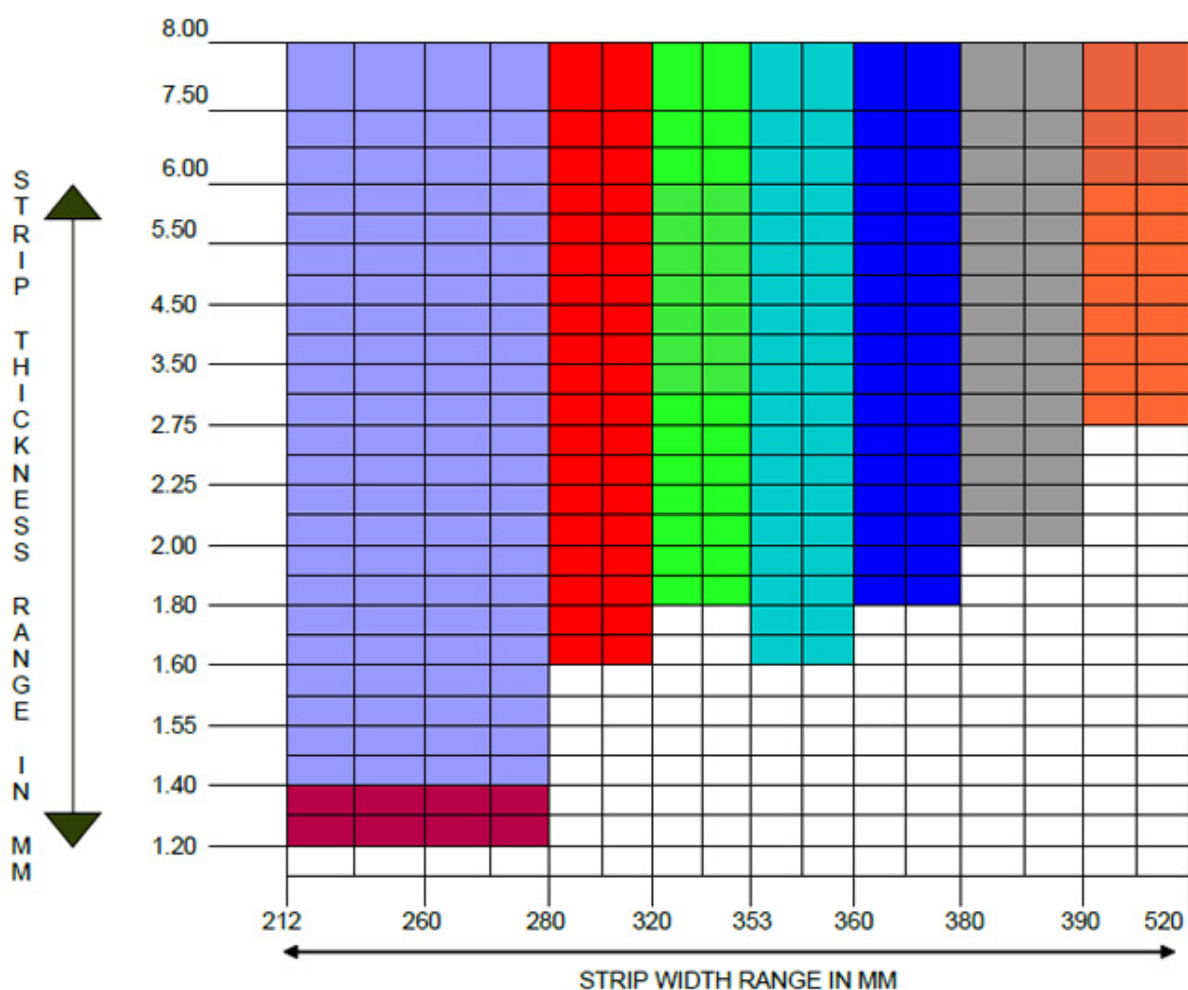
IS:2062 / 2011

Specification	Grade	Chemical Composition						Mechanical Properties					
		Quality	Ladle Analysis, %Max					Tensile Strength Rm Min Mpa	Yield Stress ($t \leq 20$)	Percentage Elongation A, at Gauge Length, L = 5.65 S Min	Internal Bend Diameter Min	Charpy Impact test	
			C %max	Mn %max	S %max	P %max	Si %max						
IS:2062/2011	E-250	A	0.23	1.5	0.045	0.045	0.4	410	250	23	2t	-	-
		BR	0.22	1.5	0.045	0.045	0.4					RT	27
		BO	0.22	1.5	0.045	0.045	0.4					0	27
		C	0.2	1.5	0.04	0.04	0.4					(-) 20	27
	E-300	A	0.2	1.5	0.045	0.045	0.45	440	300	22	2t	-	-
		BR	0.2	1.5	0.045	0.045	0.45					RT	27
		BO	0.2	1.5	0.045	0.045	0.45					0	27
		C	0.2	1.5	0.04	0.04	0.45					(-) 20	27
	E-350	A	0.2	1.55	0.045	0.045	0.45	490	350	22	2t	-	-
		BR	0.2	1.55	0.045	0.045	0.45					RT	27
		BO	0.2	1.55	0.045	0.045	0.45					0	27
		C	0.2	1.55	0.04	0.04	0.45					(-) 20	27
	E-410	A	0.2	1.6	0.045	0.045	0.45	540	410	20	2t	-	-
		BR	0.2	1.6	0.045	0.045	0.45					RT	25
		BO	0.2	1.6	0.045	0.045	0.45					0	25
		C	0.2	1.6	0.04	0.04	0.45					(-) 20	25
	E-450	A	0.22	1.65	0.045	0.045	0.45	570	450	20	2.5t	-	-
		BR	0.22	1.65	0.045	0.045	0.45					RT	20
	E-550	A	0.22	1.65	0.02	0.025	0.5	650	550	12	3.0t	-	-
		BR	0.22	1.65	0.02	0.025	0.5					RT	15
	E-600	A	0.22	1.7	0.02	0.025	0.5	730	600	12	3.5t	-	-
		BR	0.22	1.7	0.02	0.025	0.5					RT	15

STAINLESS STEEL :

300/ 200 / 400 SERIES

Specification	Grade	% Chemical Composition (Ladle)								
		C (Max)	Si (Max)	Mn	Cr	Ni	P (Max)	S (Max)	N (Max)	Other Elements
Stainless Steel	301	0.15	1	2.00 max	16.00-18.00	6.00-8.00	0.045	0.03	0.1	-
	301 L	0.03	1	2.00 max	16.00-18.00	6.00-8.00	0.045	0.03	0.2	-
	304	0.07	0.75	2.00 max	17.5- 19.5	8.00-10.50	0.045	0.03	0.1	-
	304 L	0.03	0.75	2.00 max	17.5- 19.5	8.00-12.00	0.045	0.03	0.1	-
	310 S	0.08	1.5	2.00 max	24.00-26.00	19.00-22.0	0.045	0.03	-	-
	316	0.08	0.75	2.00 max	16.00-18.00	10.00-14.00	0.045	0.03	0.1	Mo2.0-3.0
	316 L	0.03	0.75	2.00 max	16.00-18.00	10.00-14.00	0.045	0.03	0.1	Mo2.0-3.0
	321	0.08	0.75	2.00 max	17.00-19.00	9.00-12.00	0.045	0.03	0.1	Ti=5x(C+N) Min/0.70 max
	201	0.15	1	5.50-7.50	16.0-18.0	3.50-5.50	0.06	0.03	0.25	-
	204 CU	0.15	1	6.50-9.00	15.5- 17.5	1.50-3.50	0.06	0.03	0.25	Cu 2.0-4.0
	410 S	0.08	1	1.00 max	11.50-13.50	0.60 max	0.04	0.03	-	-
	420	0.15	1	1.00 max	12.00-14.00	0.75 max	0.04	0.03	-	Mo 0.5 max
	430	0.12	1	1.00 max	16.00-18.00	0.75 max	0.04	0.03	-	-



Note:- a) Above matrix is for as rolled coils.
b) Slitted coils can be supplied in width of 24 mm and above.
c) Final width & thickness combination to be mutually agreed.

MEDIUM CARBON:
MC-30, 40, 45, 50, 55 & 60

Specification	Grade	Chemical Composition					
Medium Carbon Steels (Strapping Quality)		C %max	Mn %max	P %max	S %max	Si %max	Al %min
	MC 30	0.26-0.35	0.60-0.90	0.04	0.04	0.15-0.35	0.02
	MC 40	0.36-0.45	0.60-0.90	0.04	0.04	0.15-0.35	0.02
	MC 45	0.41-0.50	0.60-0.90	0.04	0.04	0.15-0.35	0.02
	MC 50	0.46-0.55	0.60-0.90	0.04	0.04	0.15-0.35	0.02
	MC 55	0.51-0.60	0.60-0.90	0.04	0.04	0.15-0.35	0.02
	MC 60	0.56-0.65	0.60-0.90	0.04	0.04	0.15-0.35	0.02



Cycle & Heavy Duty Rims

BICYCLE RIMS AND HEAVY DUTY RICKSHAW RIMS AVON BRAND

S.NO	TYPES OF RIMS	SIZE OF RIMS ARIM BRANDs	SPOKE HOLES
1	"AVON" WESTWOOD TYPE "A"	28x1.1/2 14 G	32/40
2		26x1.1/2 14 G	32/40
3		24x1.1/2 14 G	32/40
4	AVON ENDRICK TYPE "C-1"	26x1.3/8 14 G	36/36
5		26x1.95 14 G	36/36
6		24x1.95 14 G	36/36
7	"AVON" WESTRICK TYPE "B-1"	26x1.3/8 14 G	32/36/40H
8	"AVON" MONTAGE TYPE	26x2.125 14 G	36/36
9	"AVON" H.D 1.400 KGS WASHER WESTWOOD	28x1.1/2 10 G WASHER TYPE	40/40
10		28x1.1/2 12 G WASHER TYPE	40/40
11	"AVON" H.D 1.500 KGS PLAIN WESTWOOD	28x1.1/2 10 G	40/40
12		28x1.1/2 12 G	32/32
13		28x1.1/2 12 G	40/40

1. ARIM BRAND

S.NO	TYPES OF RIMS	SIZE OF RIMS ARIM BRANDs	SPOKE HOLES
1	"ARIM" WESTWOOD TYPE "A"	28x1.1/2 14 G/ 12G	32/40
2		26x1.1/2 14 G/ 12G	32/40
3		24x1.1/2 14 G	32/40
4		28x1.1/2 12 G WASHER TYPE	40/40
5		28x1.1/2 10 G WASHER TYPE	40/40

Sustainability

THE SYMBOL OF
TRUST

At Avon Steel Industries, sustainability is at the core of our operations. We are committed to responsible manufacturing practices that emphasize environmental protection, energy efficiency, and resource conservation. By integrating advanced technologies and eco-friendly initiatives, we continuously strive to minimize our ecological footprint while maintaining superior production standards.

Our state-of-the-art Effluent Treatment Plant (ETP) operates on a Zero Liquid Discharge principle, ensuring that wastewater from our Galvanization Plant is treated and recycled with utmost efficiency. With a capacity to process 50 KLD of rinsing waste effluent and 1 KLD of chrome waste effluent, the system incorporates ultra-filtration and a two-stage reverse osmosis process to maximize water recovery. A multi-effect evaporator with a 20 KLD capacity, along with an agitated thin film dryer and a paddle dryer, further enhances the treatment process, reinforcing our commitment to water conservation and environmental compliance.

In our pursuit of sustainable energy solutions, we have invested in a 1506.06 KWp solar power plant, significantly reducing reliance on conventional energy sources. Strategically installed across our corporate office roof, tube mill facility, and varnish shed roof, this renewable energy system operates without battery storage, optimizing efficiency while reducing our carbon footprint. By harnessing the power of solar energy, we not only contribute to a cleaner environment but also achieve greater energy independence and operational cost savings.

At Avon Steel Industries, sustainability is not just a promise—it is a responsibility embedded in our way of doing business. Our proactive approach to eco-friendly manufacturing, responsible waste management, and renewable energy adoption reflects our dedication to creating a greener and more sustainable future for generations to come.



Corporate Social Responsibility (CSR)

At Avon Steel Industries, we believe in giving back to society. Our CSR efforts focus on healthcare, education, women empowerment, and environmental sustainability to create a lasting impact.

Healthcare: S. Nihal Singh Pahwa Charitable Hospital (200 beds) provides affordable medical care, including specialized services, ICU, and diagnostics.

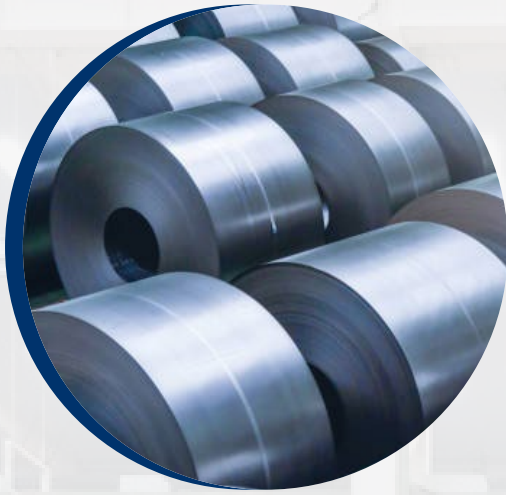
Education & Skill Development: We support schools, vocational training, and scholarships to empower youth.

Women Empowerment & Welfare: We contribute to safety programs, shelters, and livelihood initiatives.

Environmental Responsibility: Our efforts include tree plantation, water conservation, and waste management.

Our CSR Committee, led by our directors, ensures transparent execution, allocating at least 2% of net profits to social initiatives. At Avon Steel, we are committed to building a better future!





HOT ROLLED COILS

(Carbon, Alloy & Stainless Steels)



ERW STEEL TUBES

(IS: 1239, 1161, 3601, 4270, 4923)



GI PIPES

(Carbon, Alloy & Stainless Steels)



CYCLE & HEAVY DUTY RIMS

(IS: 1239, 1161, 3601, 4270, 4923)



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