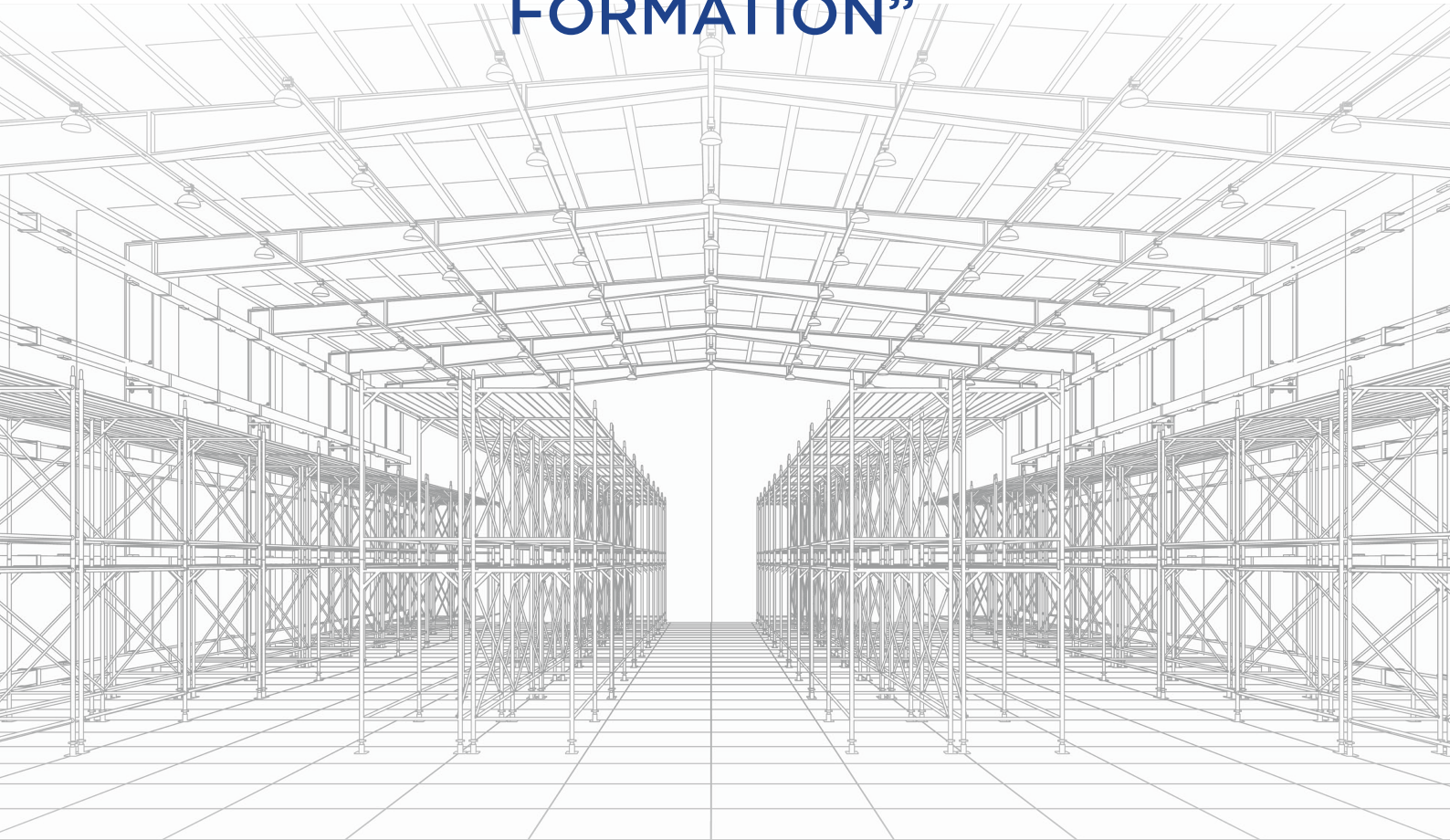


TURNING
“ABSTRACTION
INTO
FORMATION”



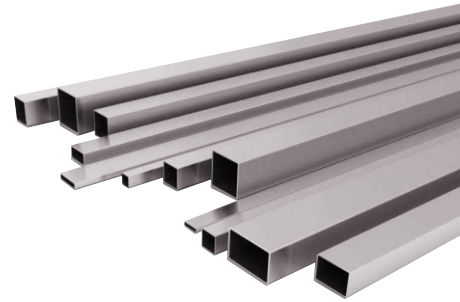
RATNA[®]
STEELTECH

Manufacturer of MS-ERW Pipes & Tubes
Pre-Engineered Building and Pre-Fabricated Structures



About us :

We **Ratnabhumi Steeltech Pvt. Ltd.** an ISO 9001:2015 Certified Organization are an emerging Company in manufacturing of High-Quality Integrated Pre-Engineered Building, Pre-Fabricated Structures, MS-ERW Pipes & Tubes, Industrial sheds, Heavy Fabricated Structures. We have made sure that all the needs of the client are fulfilled under one roof.



Mission

To achieve our goal of becoming the best in manufacturing of Pre-Engineered Building and MS-ERW Pipes & Tubes.



Vision

To be recognized as the leader in manufacture of MS-ERW Pipes & Tubes. Also to be recognized as the most innovative company in PEB segment.

On time Delivery with highest product quality.



Collaboration with customers on project requirements.



Cost effective solutions through Innovative engineering.



Fine state of the art manufacturing facilities to fulfill all our customer requirements.



On site support to assure safe and error free of project.



Managing customers timeline through project planning and seamless coordination with project disciplines.



COMMITTED TO EXCELLENCE

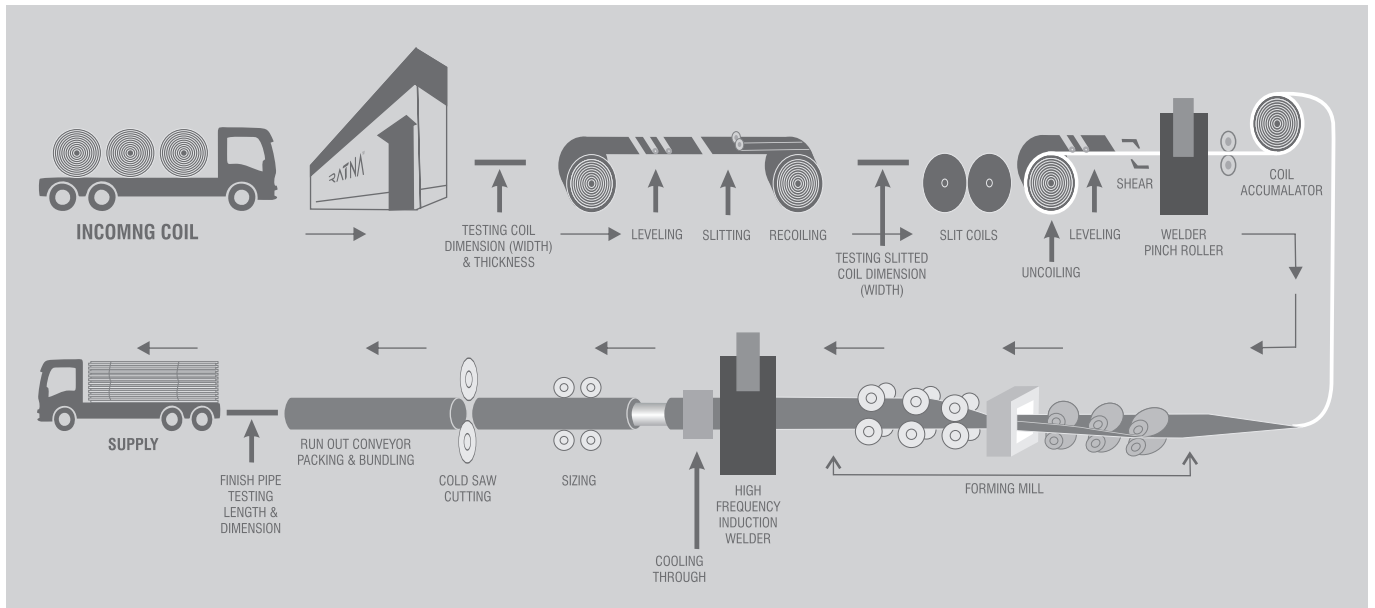


MS ERW Pipes

Ratnabhumi Steeltech Pvt. Ltd. is one of the emerging MS-ERW Pipes & Tubes Manufacturer. Common sizes for ERW Steel Pipe range from 1/2" NB to 20" NB in a variety of lengths to over 40 feet. Surface finishes are available in bare and coated formats and processing can be handled on site to customer specifications.

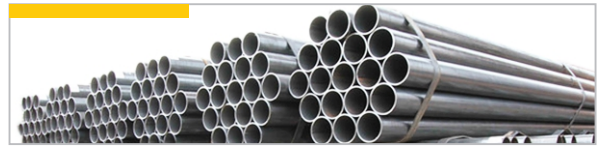


Process Flow Chart



CHS (Circular Hollow Sections)

Circular hollow sections (CHS) was the first form of hollow section. Commonly used in a wide range of structural, mechanical and construction areas.



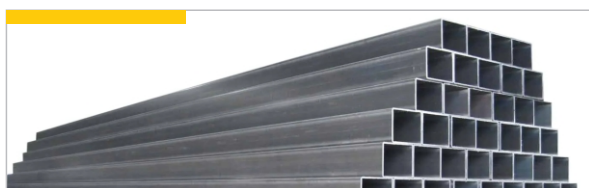
Nominal Bore	Outer Diameter	Thickness	Weight	Area	Outer surface area/m	Moment of Inertia	Section Modulus	Radius of Gyration
mm	mm	mm	kg/m	cm ²	cm ² /m	cm ⁴	cm ³	cm
15	21.3	2	0.95	1.21	669	0.57	0.54	0.69
		2.6	1.21	1.53		0.69	2.64	0.66
		3.2	1.44	1.82		0.75	0.7	0.65
20	26.9	2.3	1.38	1.78	845	1.36	1.01	0.87
		2.6	1.56	1.98		1.48	1.1	0.86
		3.2	1.87	2.38		1.7	1.26	0.84
25	33.7	2.6	1.98	2.54	1059	3.09	1.83	1.1
		3.2	2.41	3.06		3.61	2.14	1.08
		4	2.93	3.73		4.19	2.48	1.05
32	42.4	2.6	2.54	3.25	1332	6.47	3.05	1.41
		3.2	3.01	3.94		7.62	3.59	1.39
		4	3.79	4.82		8.99	4.24	1.36
40	48.3	2.9	3.23	4.13	1517	10.7	4.43	1.61
		3.2	3.56	4.53		11.59	4.8	1.59
		4	4.37	5.56		13.77	5.7	1.57
50	60.3	2.9	4.08	5.23	1895	21.59	7.16	2.03
		3.6	5.03	6.41		25.88	8.59	2
		4.5	6.19	7.88		30.9	10.2	1.98
65	76.1	3.2	5.71	7.32	2391	48.79	12.82	2.58
		3.6	6.42	8.2		54.02	14.2	2.57
		4.5	7.93	10.1		65.12	17.1	2.54
80	88.9	3.2	6.72	8.61	2793	79.23	17.82	3.03
		4	8.36	10.7		96.36	21.68	3
		4.8	9.9	12.7		112.52	25.31	2.98
100	114.3	3.6	9.75	12.5	3591	192.03	33.6	3.92
		4.5	12.2	15.5		234.3	41	3.89
		5.4	14.5	18.5		274.5	48	3.85
110	127	4.5	13.59	17.32	3990	325.29	51.23	4.33
		4.8	14.47	18.43		344.5	54.25	4.32
		5.4	16.19	20.63		382.04	60.16	4.3



RHS (Rectangular Hollow Sections)

Rectangular hollow sections (RHS) is a popular choice for mechanical, structural and construction applications. This is due to the flat surface resulting in a structural solution that is more economical for joining and various other types of fabrication works.

Dimension mm	Thickness mm	Area cm ²	Weight kg/m	Moment of Inertia		Radius of Gyration		Elastic Modulus	
				I _{xx} cm ⁴	I _{yy} cm ⁴	R _{xx} cm	R _{yy} cm	Z _{xx} cm ³	Z _{yy} cm ³
50*25	2	2.74	2.15	8.38	2.81	1.75	1.01	3.35	2.25
	2.6	3.46	2.71	10.16	3.36	1.71	0.99	4.06	2.69
	3.2	4.13	3.24	11.63	3.8	1.68	0.96	4.65	3.04
60*40	2.6	4.76	3.73	22.76	12.09	2.19	1.59	7.59	6.05
	2.9	5.25	4.12	24.74	13.11	2.17	1.58	8.25	6.56
	3.6	6.35	4.98	28.9	15.23	2.13	1.55	9.63	7.62
80*40	2.6	5.8	4.55	46.58	15.74	2.84	1.65	11.65	7.87
	3.2	7.01	5.5	54.94	18.41	2.8	1.62	13.74	9.21
	4	8.55	6.71	64.79	21.49	2.75	1.59	16.2	10.74
	4.8	10.01	7.85	73.22	24.03	2.71	1.55	18.3	12.02
96*48	3.2	8.54	6.71	98.61	33.28	3.4	1.97	20.54	13.87
	4	10.47	8.22	117.54	39.32	3.35	1.94	24.49	16.38
	4.8	12.31	9.66	134.35	44.55	3.3	1.9	27.99	18.56
122*61	3.6	12.32	9.67	232.61	78.83	4.34	2.53	38.13	25.84
	4.5	15.14	11.88	278.94	93.78	4.29	2.49	45.73	30.75
	5.4	17.85	14.01	320.83	107.03	4.24	2.45	52.6	35.09



SHS (Square Hollow Sections)

Square hollow sections (SHS) is another popular type of structural steel tube that's kind of a middle-man between RHS and CHS in terms of attributes, appearance and structural behaviour.

Dimension mm	Thickness mm	Area cm ²	Weight kg/m	Moment of Inertia		Radius of Gyration		Elastic Modulus	
				I _{xx} cm ⁴	I _{yy} cm ⁴	R _{xx} cm	R _{yy} cm	Z _{xx} cm ³	Z _{yy} cm ³
25*25	2	1.74	1.36	1.48	1.48	0.92	0.92	1.19	1.19
	2.6	2.16	1.69	1.72	1.72	0.89	0.89	1.38	1.38
	3.2	2.53	1.98	1.89	1.89	0.86	0.86	1.51	1.51
32*32	2	2.3	1.8	3.36	3.36	1.21	1.21	2.1	2.1
	2.6	2.88	2.26	4.02	4.02	1.18	1.18	2.51	2.51
	3.2	3.42	2.69	4.54	4.54	1.15	1.15	2.84	2.84
40*40	2.6	3.72	2.92	8.45	8.45	1.51	1.51	4.22	4.22
	3.2	4.45	3.49	9.72	9.72	1.48	1.48	4.86	4.86
	4	5.35	4.2	11.07	11.07	1.44	1.44	5.54	5.54
50*50	2.6	4.76	3.74	17.47	17.47	1.92	1.92	6.99	6.99
	2.9	5.25	4.12	18.99	18.99	1.9	1.9	7.6	7.6
	3.6	6.35	4.98	22.15	22.15	1.87	1.87	8.86	8.86
60*60	2.6	5.8	4.55	31.33	31.33	2.33	2.33	10.44	10.44
	3.2	7.01	5.5	36.94	36.94	2.3	2.3	12.31	12.31
	4	8.55	6.71	43.55	43.55	2.26	2.26	14.52	14.52
72*72	3.2	8.54	6.71	66.32	66.32	2.79	2.79	18.42	18.42
	4	10.47	8.22	79.03	79.03	2.75	2.75	21.95	21.95
	4.8	12.31	9.66	90.31	90.31	2.71	2.71	25.09	25.09
80*80	3.2	9.57	7.51	92.71	92.71	3.11	3.11	23.18	23.18
	4	11.75	9.22	111.04	111.04	3.07	3.07	27.76	27.76
	4.8	13.85	10.87	127.58	127.58	3.04	3.04	31.89	31.89
91.5*91.5	3.6	12.32	9.67	156.49	156.49	3.56	3.56	34.21	34.21
	4.5	15.14	11.88	187.57	187.57	3.52	3.52	41	41
	5.4	17.85	14.01	215.68	215.68	3.48	3.48	47.14	47.14
100*100	4	14.95	11.73	226.35	226.35	3.89	3.89	45.27	45.27
	5	18.36	14.41	271.1	271.1	3.84	3.84	54.22	54.22
	6	21.63	16.98	311.47	311.47	3.79	3.79	62.29	62.29

Quality Assurance

Pipe & Tube Manufacturing



Universal Testing Machine

A universal testing machine (UTM), also known as a universal tester,[1] materials testing machine or materials test frame, is used to test the tensile strength and compressive strength of materials. An earlier name for a tensile testing machine is a tensometer. The "universal" part of the name reflects that it can perform many standard tensile and compression tests on materials, components, and structures (in other words, that it is versatile).



Hardness Testing Machine

hardness tester, device that indicates the hardness of a material, usually by measuring the effect on its surface of a localized penetration by a standardized rounded or pointed indenter of diamond, carbide, or hard steel. The Rockwell hardness tester utilizes either a steel ball or a conical diamond known as a brale and indicates hardness by determining the depth of penetration of the indenter under a known load. This depth is relative to the position under a minor initial load; the corresponding hardness number is indicated on a dial.



Tube Bending Machine

Pipe bending machines are utilized to bend pipes and tubes to create curved formed sections. This machinery is useful for many applications, such as pipe sealing, pipe bending, pipe assembly, and pipe breaking. Tubular pipes are generally made of bent metal, like steel, or aluminium.



Chemical Spectrometer

A spectrometer is the instrument used in spectroscopy that produces spectral lines and measures their wavelengths and intensities. It is a scientific device that separates particles, atoms, and molecules by their mass, momentum, or energy. Spectrometers are integral to chemical analysis and particle physics.



Hydro Testing Machine

Hydrostatic testing of equipment and pipelines involves pressure testing with water to verify their integrity and to detect possible leaks. detect possible leaks.



Applications of Pipes

Architectural



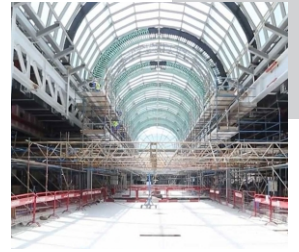
Shopping Malls



Stadiums



Stadium Roofing System

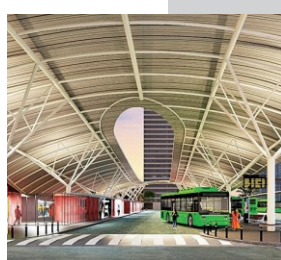


Special Projects

Infrastructural



Airport Buildings



Bus Terminals



Foot Over Bridges



Railways Platform Sheds

Industrial



Pre Engineered Buildings



Warehouses



Power Plants

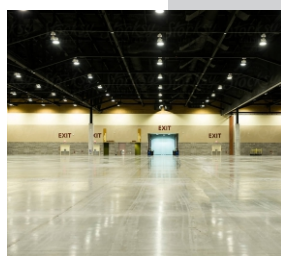


Roof Systems

General Engineering



Hoardings Structures



Exhibition Halls



Side Railings



Amusement Park



RATNABHUMI STEELTECH PVT. LTD.

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