



**POWERING  
SEAMLESSLY TOWARDS  
ENERGY & INDUSTRIAL  
SOLUTIONS**

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# ABOUT US

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## RASHMI GROUP

**Mr. Sunil Kumar Patwari**, a Commerce Graduate, joined the family business which then was centered around the steel industry. Within a very short period of time, he turned the greatest chapter in the group's history with his highly effective managerial and leadership skills.

Mr. Sunil Kumar Patwari has singlehandedly led the group towards its current transformation as a global business conglomerate. The technology adopted under his guidance is world class. This combined with the constant capacity expansion has led to market domination by Rashmi Group.

## MANAGEMENT LEGACY

The leadership team of Rashmi Group has shown a successful track record of undertaking varied business operations and helping the various businesses units achieve superlative performance and growth.

The biggest asset of the organisation is the time-tested business management skills and expertise of the leaders and top management have exhibited over the years. This has resulted in the group reaching the unbeatable position when it comes to sectors such as Iron & Steel, Cement, Power, Ferro Alloys, Dredging and Computers.

The group possesses a very strong financial stability and this fundamental strength combined with low-risk operations has helped the group not only in expanding its business presence in India, but also in China, Sri Lanka, Thailand, Myanmar, Singapore etc.

## ABOUT COMPANY

One of the newest initiatives of the Rashmi Group of Companies, Rashmi Green Hydrogen Steel Pvt. Ltd., aspires to have a strong interest and transparent commitment to being the world's leading maker of Seamless Pipes & Tubes. Our ongoing acculturation to cutting-edge technologies is essential for manufacturing products of the highest calibre. Our current installed capacity of Seamless products (Hot and Cold finish) is 120,000 MTPA in size range of 10 mm – 90 mm Outside Diameter with Wall Thickness ranging from 1.5 mm to 15.24 mm.

## ESTABLISHMENT

Founded in 1966, Rashmi Group has made its mark in industries like Iron & Steel, Ferro Alloys, D.I Pipes, Cement, Power, Dredging, Electronics and Latex. We began on a modest scale and ever since developed into one of the top producers of Steel, Cement and Ductile Iron Pipe. We have been exploring new avenues, ever since we embarked upon this great journey.

The company has its operations in Eastern India with offices situated in all metropolitan cities across the country. The organization has operational facilities in Kharagpur and Jhargram in West Bengal, since 1966. Being India's one of the fastest growing business conglomerates, we have a strong foothold in countries like China, Sri Lanka, Thailand, Myanmar and Singapore.

# VISION :

**Engineering leadership in Seamless Pipes & Tubes industry:**

- To strive to be the leader in our area of operation.
- To uphold the interest of all stakeholders.
- To make the operations environmentally friendly.

# MISSION :

Our mission is to produce best quality products at competitive prices for creating value for our clientele and stakeholders. We shall pursue the policy of transparency and adherence to modern management practices, while our commitment to highest standards of responsible ethical conduct in the organization shall continue as ever. We will remain committed to provide our employees with a safe and healthy working environment.

As we plan to enter 2nd Phase, we aim to expand our presence through the manufacturing of Line Pipes and OCTG products catering to the Oil & Gas, Refinery and Energy segments, by enhancing our size range upto 6 inch NB with additional capacity of 150,000 MTPA.

Further, in 3rd Phase, we plan to enhance our Seamless product range from 6 inch to 20 inch NB with additional capacity of 250,000 MTPA catering to all business segments.

## Quality Principles

Rashmi Group is known for its cutting-edge quality control system. Stringent control over raw material procurement, process control activities, efficient distribution network and quick delivery of completed items reflect strict adherence to the “Uncompromising Quality, Guaranteed” policy.

Test facilities at RGHSPL include Tensile, Hardness, Charpy Impact test, Hydrostatic test (including alternative test pressure), MPI, NDT- EDDY/UT, MT, EMI and Metallographic evaluation. The plant has the best in industry online process control to ensure stringent wall thickness and OD dimensional tolerances.

**Accreditation :** Our plant is certified with Quality Management System (ISO 9001:2015) certification and is under the process of obtaining various certifications like Environment Management System (ISO 14001:2015) and OHSAS (ISO: 45001:2018).

# Quality Policy

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We the Management and Employees of Rashmi Green Hydrogen Steel Pvt. Ltd. (Seamless Division), a reputed manufacturer of Seamless Pipes and Tubes in India, pronounce our commitment as below:

- To ascertain, fulfill and sustain customer requirement, as per applicable National and International Standards and adhering to all Legal compliances.
- To improve Product Quality through Continuous Improvement and Monitoring of the effectiveness of Processes, Trainings and Awareness of the personnel.
- To achieve Customer Satisfaction by delivering quality products on-time.

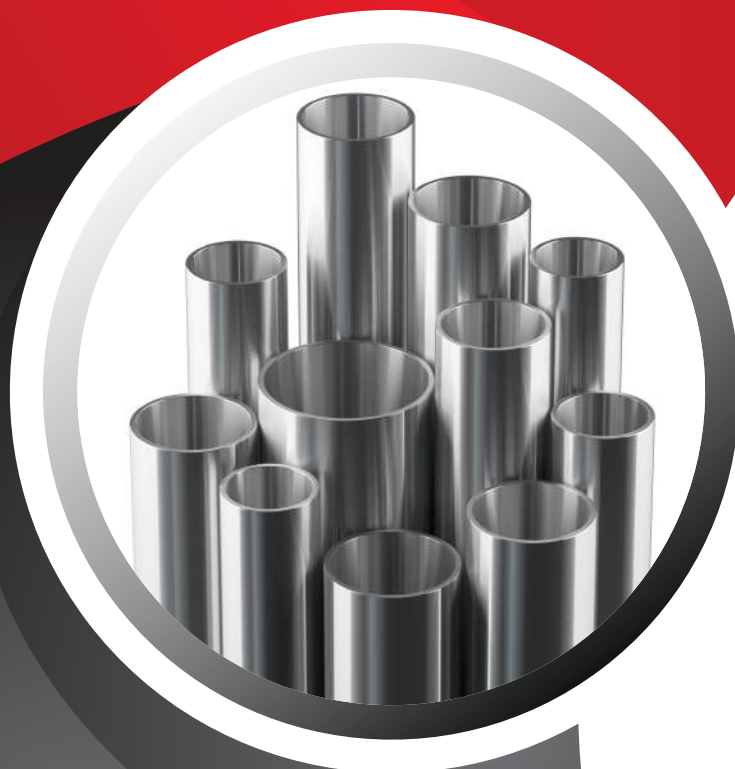
## Quality Objectives

To establish and enhance our reputation as manufacturer of Standard Seamless Pipes & Tubes, Boiler Pipes & Tubes, Mechanical Pipes & Tubes, OCTG Products, Bearing Steel Tubes and Stainless Steel Tubes of the highest quality. Our primary objectives are:

- To deliver Quality Products
- To ensure On-time Delivery
- To maintain Customer Satisfaction

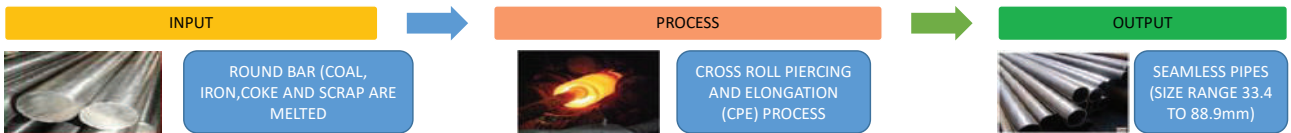
## Commitment

We, Rashmi Green Hydrogen Steel Pvt. Ltd. (Seamless Division) hereby, stand committed to the best of Quality Products and complete Customer Satisfaction.

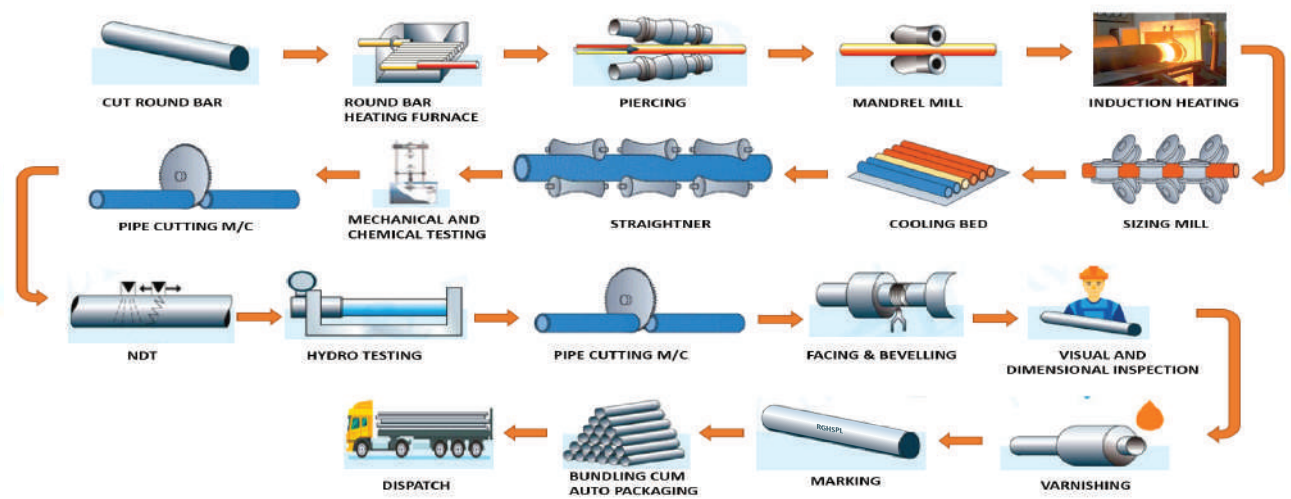


# INNOVATION

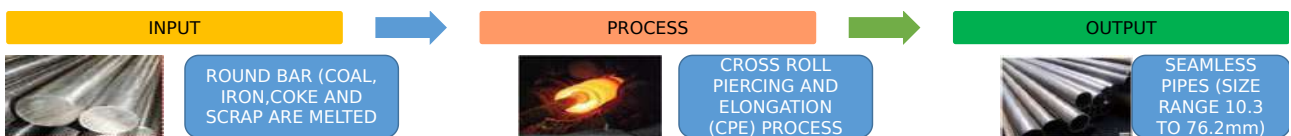
## SEAMLESS PIPES & TUBES - HOT MANUFACTURING PROCESS



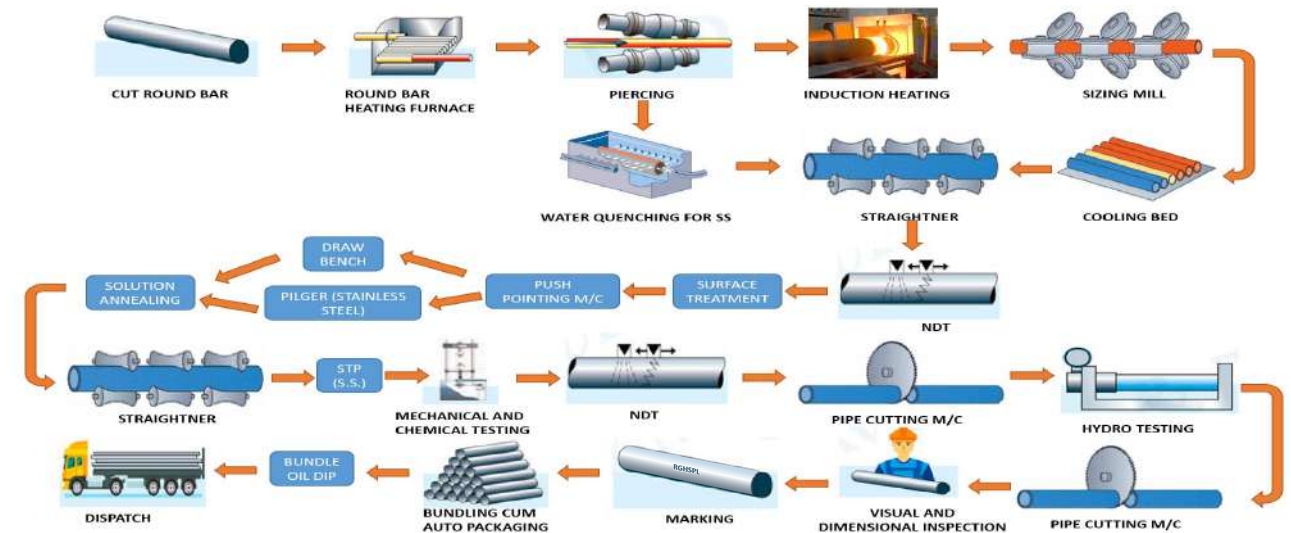
PROCESS FLOW CHART



## SEAMLESS PIPES & TUBES - COLD MANUFACTURING PROCESS



PROCESS FLOW CHART





# Industries We Cater to

## 1. Automobiles & Bearing OEMs :

In the Automobile Industry, **Seamless Pipes & Tubes feature a hollow section and are widely utilised as pipelines for carrying fuel and gas.** They are also used for **vehicle transmission shafts, automobile mufflers/ condensers/ exhaust, control shafts and shock absorber oil storage pipe.** In the Bearing Industry, Seamless Pipes & Tubes are used to produce outer races, inner races and rollers. They are preferred over other types of pipes because of their **high strength, uniformity, and consistency in dimensions and surface finish.**

### PRODUCT SPECIFICATION

### STANDARDS & GRADES

Product Category	Dimensional Capability (OD)	Wall Thickness (mm)		Length (In Mtrs)
		Min.	Max.	
Seamless Structure Tube	1/2" - 3 1/2"	2.0	15.24	14 Mtrs. Max
Seamless Mechanical Pipe & Tube	1/2" - 3 1/2"	2.0	15.24	14 Mtrs. Max
Bearing Tube	1/2" - 3 1/2"	2.0	12.70	14 Mtrs. Max

### PRODUCT SPECIFICATION

### STANDARDS & GRADES

IS 1239	ASTM A53	ASTM A 519	SAE 4130	DIN 1629	ST 52	ASTM A 295	SAE 52100
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## 2. Power, Boiler & Heat-Exchanges OEMs :

Seamless Pipes and Tubes are **used in the construction of various components of power generation plants such as boilers, steam turbines, and condensers.** These pipes and tubes are **used to transport steam, water, or other fluids at high temperatures and pressures.**

Normal Boiler tubes are used to manufacture various components such as, **Water Wall tubes, Economizer tubes, Condenser tubes.** High-pressure boiler tubes on the other hand, are mainly used to manufacture **super heaters and for steam generation** for super critical and Ultra Critical boilers.

### PRODUCT SPECIFICATION      STANDARDS & GRADES

Product Category	Dimensional Capability (OD)	Wall Thickness (mm)		Length (In Mtrs)
		Min.	Max.	
Seamless Boiler Tube	1/2" - 3 1/2"	2.0	15.24	14 Mtrs. Max
Seamless Stainless Tube	1/2" - 3 1/2"	2.0	12.70	14 Mtrs. Max

### PRODUCT SPECIFICATION      STANDARDS & GRADES

ASTM A /ASME SA/A - 210/Gr. A1, C; A213/ T-11; T-12; T-22; T-1; T-5; T-9; T-91; T-92; T-93, BS3059-1/2/Gr. 320/ Gr. 360/440/620/622	SS TP-304	SS TP-316
EN10216-1/2 (P235TR1/2/ P265TR1/2/ P235GHTC1/2/ P265GHTC1/2); EN17175- 16Mo3	SS TP-321	





### 3. Chemical Industries :

Seamless Pipes & Tubes are widely used in the chemical industry because they offer several benefits over welded pipes. The chemical industry involves the **transportation of a wide range of liquids, gases, and chemicals**. Seamless Pipes and Tubes are well-suited for this purpose due to their ability to **withstand high pressure, high temperatures and corrosive environments**.

<b>PRODUCT SPECIFICATION</b>		<b>STANDARDS &amp; GRADES</b>		
Product Category	Dimensional Capability (OD)	Wall Thickness (mm)		Length (In Mtrs)
		Min.	Max.	
Seamless Line Pipe	1/2" - 3 1/2"	2.8	15.24	14 Mtrs. Max
Seamless Galvanised Tube	1/2" - 3 1/2"	2.0	15.24	14 Mtrs. Max
Seamless Stainless Tube	1/2" - 3 1/2"	2.0	12.70	14 Mtrs. Max

<b>PRODUCT SPECIFICATION</b>		<b>STANDARDS &amp; GRADES</b>		
ASTM /ASME - A106/ A53- Gr. A; B; C	ISO 3183	ISO 3183	ASTM A /ASME SA/A-333/334 Gr- 1; 3; 6	
API 5L - X60Q, X65Q, X70Q / PSL-1/2 NACE MR0103 / MR0175	IS: 1239-1; IS: 1161; IS: 3601		EN 10208	
SS TP-304	SS TP-316	SS TP-321		

## 4. Heavy Machinery & Mining :

Seamless Pipes & Tubes are commonly used in heavy machinery and mining industry for various applications such as **conveying fluids, gases, hydraulic systems, fuel lines, drilling, exploration, extraction, and processing of minerals and exhaust systems and slurries under high pressure and temperature conditions.** They are preferred over welded pipes because of their **superior strength, reliability, and resistance to fatigue and vibration.**

### PRODUCT SPECIFICATION      STANDARDS & GRADES

Product Category	Dimensional Capability (OD)	Wall Thickness (mm)		Length (In Mtrs)
		Min.	Max.	
Seamless Structural Tube	1/2" - 3 1/2"	2.0	15.24	14 Mtrs. Max
Seamless Mechanical Pipe & Tube	1/2" - 3 1/2"	2.0	15.24	14 Mtrs. Max

### PRODUCT SPECIFICATION      STANDARDS & GRADES

EN10210-1 (S235JRH to S355J2H), EN 10297-1 (E235, E275, E355), IS 1161- YST 210; 240; 310; IS 3601

SAE 4130    ASTM A-519    DIN ST52





## 5. Railway Infrastructure & Construction :

Seamless Pipes and Tubes are used in development of Rail Infrastructure, like **bridges, tunnels, platforms** which provide a strong and stable base for trains to run on. These pipes are used to support the rails and to create a solid foundation for the tracks. They are used to **support the weight of the structure and to ensure its stability.**

### PRODUCT SPECIFICATION

### STANDARDS & GRADES

Product Category	Dimensional Capability (OD)	Wall Thickness (mm)		Length (In Mtrs)
		Min.	Max.	
Seamless Structural Tube	1/2" - 3 1/2"	2.0	15.24	14 Mtrs. Max
Seamless Mechanical Pipe & Tube	1/2" - 3 1/2"	2.0	15.24	14 Mtrs. Max

### PRODUCT SPECIFICATION

### STANDARDS & GRADES

ASTM /ASME - A106/ A53- Gr. A; B; C;		EN10210-1 (S235JRH to S355J2H), EN 10297-1 (E235, E275, E355)			
EN10208	IS: 1239-1; IS: 1161; IS: 3601 (550 GSM)	ASTM A53	ASTM A 519	SAE 4130	DIN 1629 ST52
ASTM A 295	SAE 52100	ASTM A 534	8620H	IS 1239; IS 3601; IS 1161-YST 210; 240; 310	

## 6. Oil & Gas Refineries, On-Shore & Off-Shore Drilling :

Seamless Pipes & Tubes are used extensively in Oil & Gas sector and they are available in types like **Casing, Tubing, Drilling and Line Pipe**. These pipes are used for exploration and transportation of crude oil, natural gas, and other petroleum products. They are **highly resistant to high pressure, temperature, stress, strength, reliability, and resistance to corrosion and fatigue and corrosive atmospheres**, making them ideal for a wide range of applications in industries such as Oil & Gas, Refining and Petrochemical.

### PRODUCT SPECIFICATION    **STANDARDS & GRADES**

Product Category	Dimensional Capability (OD)	Wall Thickness (mm)		Length (In Mtrs)
		Min.	Max.	
Seamless Line Pipe	1/2" - 3 1/2"	2.8	15.24	14 Mtrs. Max
Seamless Galvanised Tube	1/2" - 3 1/2"	2.0	15.24	14 Mtrs. Max
Seamless Stainless Tube	1/2" - 3 1/2"	2.0	12.70	14 Mtrs. Max

### PRODUCT SPECIFICATION    **STANDARDS & GRADES**

ASTM /ASME - A106/ A53- Gr. A; B; C		API 5L - X60Q, X65Q, X70Q / PSL-1/2 NACE MR0103 / MR0175			
ISO 3183	IS: 1239-1; IS: 1161; IS: 3601	EN 10208	SS TP-304	SS TP-316	SS TP-321
ASTM A /ASME SA/A-333/334 Gr- 1; 3; 6					

## 7. PMC, EPC & Distribution :

Seamless Pipes & Tubes are widely used in Project Management Consultancies (PMCs) and Engineering, Procurement and Construction (EPC) companies for various applications such as **transportation of crude oil, natural gas, and other petroleum products** and in **construction projects such as bridges, buildings, and tunnels**. These pipes are used for structural applications such as the **construction of pillars and supports**.

### PRODUCT SPECIFICATION    **STANDARDS & GRADES**

Product Category	Dimensional Capability (OD)	Wall Thickness (mm)		Length (In Mtrs)
		Min.	Max.	
Seamless Line Pipe	1/2" - 3 1/2"	2.8	15.24	14 Mtrs. Max
Seamless Galvanised Tube	1/2" - 3 1/2"	2.0	15.24	14 Mtrs. Max
Seamless Stainless Tube	1/2" - 3 1/2"	2.0	12.70	14 Mtrs. Max

### PRODUCT SPECIFICATION    **STANDARDS & GRADES**

ASTM A /ASME SA/A -53- Gr. A; B; C; X42, ASTM A/ASME SA/A-106- Gr. A; B; C, IS: 1239-1		ISO3183			
API 5L - X60Q, X65Q, X70Q / PSL-1/2 NACE MR0103 / MR0175			ASTM A /ASME SA/A-333/334 Gr- 1; 3; 6		
EN10208	ASTM A-106 / A-53 Gr. A / B	IS: 1239-1; IS: 1161; IS: 3601	SS TP-304	SS TP-316	SS TP-321

# STANDARD TUBE

## Product Table

ASTM SCHEDULE SIZES															
DIMENSIONS AND WEIGHTS															
Nominal Pipe Size (mm/inch)	OD (mm)	Schedule Wall Thickness (mm) / Weight (kg./mtr.)													
		Sch. 5	Sch. 10	Sch 20	Sch 30	STD	Sch. 40	XS	Sch. 60	Sch 80	Sch 100	Sch 120	Sch 140	Sch 160	XXS
6 1/8	10.3	-	1.24	-	-	1.73	1.73	2.41	-	2.41	-	-	-	-	-
		-	0.28	-	-	0.37	0.37	0.47	-	0.47	-	-	-	-	-
8 1/4	13.7	-	1.65	-	-	2.24	2.24	3.02	-	3.02	-	-	-	-	-
		-	0.49	-	-	0.63	0.63	0.80	-	0.80	-	-	-	-	-
10 3/8	17.1	-	1.65	-	-	2.31	2.31	3.20	-	3.20	-	-	-	-	-
		-	0.63	-	-	0.84	0.84	1.10	-	1.10	-	-	-	-	-
15 1/2	21.3	1.65	2.11	-	-	2.77	2.77	3.73	-	3.73	-	-	-	4.78	7.47
		0.80	1.00	-	-	1.27	1.27	1.62	-	1.62	-	-	-	1.95	2.55
20 3/4	26.7	1.65	2.11	-	-	2.87	2.87	3.91	-	3.91	-	-	-	5.56	7.82
		1.03	1.28	-	-	1.69	1.69	2.20	-	2.20	-	-	-	2.90	3.64
25 1	33.4	1.65	2.77	-	-	3.38	3.38	4.55	-	4.55	-	-	-	6.35	9.09
		1.29	2.09	-	-	2.50	2.50	3.24	-	3.24	-	-	-	4.24	5.45
32 1 1/4	42.2	1.65	2.77	-	-	3.56	3.56	4.85	-	4.85	-	-	-	6.35	9.70
		1.65	2.69	-	-	3.39	3.39	4.47	-	4.47	-	-	-	5.61	7.77
40 1 1/2	48.3	1.65	2.77	-	-	3.68	3.68	5.08	-	5.08	-	-	-	7.14	10.15
		1.90	3.11	-	-	4.05	4.05	5.41	-	5.41	-	-	-	7.25	9.55
50 2	60.3	1.65	2.77	-	-	3.91	3.91	5.54	-	5.54	-	-	-	8.74	11.07
		2.39	3.93	-	-	5.44	5.44	7.48	-	7.48	-	-	-	11.11	13.44
65 2 1/2	73.0	2.11	3.05	-	-	5.16	5.16	7.01	-	7.01	-	-	-	9.53	14.02
		3.69	5.26	-	-	8.63	8.63	11.41	-	11.41	-	-	-	14.90	20.39
80 3	88.9	2.11	3.05	-	-	5.49	5.49	7.62	-	7.62	-	-	-	11.13	15.24
		4.52	6.46	-	-	11.29	11.29	15.27	-	15.27	-	-	-	21.35	27.68

**NOTE :**  
 1) Weights are specified for Plain End Pipes.  
 2) Maximum pipe length 14 meter.

# BOILER & HEAT EXCHANGER TUBE

## Product Table

BOILER AND HEAT EXCHANGER SEAMLESS TUBES																		
Outside Diameter		Wall Thickness (mm)																
		16swg	15swg	14swg	13swg	12swg	11swg	10swg	9swg	8swg	7swg	6swg	5swg	4swg	1/4	5/16	3/8	1/2
		1.63 mm	1.83 mm	2.03 mm	2.34 mm	2.64 mm	2.94 mm	3.25 mm	3.66 mm	4.06 mm	4.47 mm	4.88 mm	5.39 mm	5.89 mm	6.35 mm	7.94 mm	9.53 mm	12.7 mm
INCH	MM	Weight with Nominal thickness (kg./mtr.)																
		Weight with Nominal thickness (kg./mtr.)																
0.50	12.7	0.44	0.49	0.53	0.60													
		0.47	0.52	0.56	0.63													
0.67	15.88	0.57	0.63	0.69	0.78	0.86	0.94											
		0.60	0.67	0.73	0.82	0.91	0.99											
0.75	19.05	0.70	0.78	0.85	0.96	1.07	1.17	1.27										
		0.74	0.82	0.89	1.01	1.12	1.23	1.33										
1.00	25.40	0.96	1.06	1.17	1.33	1.48	1.63	1.78										
		1.01	1.11	1.23	1.40	1.55	1.71	1.87										
1.25	31.75				1.70	1.90	2.09	2.28	2.54	2.77								
					1.79	2.00	2.19	2.39	2.67	2.91								
1.50	38.10							2.79	3.11	3.41	3.71	4.00	4.35	4.68	4.97			
								3.07	3.42	3.75	4.08	4.40	4.79	5.15	5.47			
1.75	44.45							3.38	3.76	4.13	4.49	4.84	5.26	5.66	6.01			
								3.63	4.05	4.45	4.85	5.24	5.71	5.88	6.26			
2.00	50.80							3.81	4.25	4.68	5.11	5.53	6.04	6.52	6.96			
								4.19	4.68	5.15	5.62	6.08	6.64	7.17	7.66			
2.25	57.15							4.32	4.83	5.32	5.81	6.29	6.88	7.45	7.96	9.64		
								4.75	5.31	5.85	6.39	6.92	7.57	8.20	8.76	10.60		
2.50	63.50							4.83	5.40	5.95	6.51	7.05	7.72	8.37	8.95	10.88	12.68	
								5.31	5.94	6.55	7.16	7.76	8.49	9.21	9.85	11.97	13.95	
2.75	69.85							5.34	5.97	6.59	7.21	7.82	8.57	9.27	9.94	12.12	14.18	
								5.87	6.57	7.25	7.93	8.60	9.43	10.20	10.93	13.33	15.60	
3.00	76.20							5.85	6.55	7.22	7.91	8.58	9.41	10.21	10.94	13.37	15.67	
								6.44	7.21	7.94	8.70	9.44	10.35	11.23	12.03	14.71	17.24	
3.25	82.55							6.36	7.12	7.86	8.61	9.35	10.26	11.14	11.93	14.61	17.16	
								7.00	7.83	8.65	9.47	10.29	11.29	12.25	13.12	16.07	18.88	
3.50	88.90							6.86	7.69	8.49	9.31	10.11	11.10	12.06	12.93	15.85	18.65	23.87
								7.55	8.46	9.34	10.24	11.12	12.21	13.27	14.22	17.44	20.52	26.26

**Note:** All Dimensions are in mm  
Maximum Length 14 meters

# STRUCTURAL TUBE

## Product Table

SEAMLESS STRUCTURAL TUBES																						
Outside Diameter (MM)			Wall Thickness (MM)																			
1	2	3	1.6	1.8	2	2.3	2.6	2.9	3.2	3.6	4	4.5	5	5.6	6.3	7.1	8	8.8	10	11	13	14
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	64																					
	70																					
	73																					
76																						
	83																					
89																						

Note: All Dimensions are in mm  
Maximum Length 14 meters



# STAINLESS STEEL TUBE

## Product Table

SEAMLESS STAINLESS STEEL TUBES													
Outside Diameter			Sch-5S		Sch-10S		Sch-40S		Sch-80S		Sch-160S		
NB	INCH	MM	Wt mm	Weight (Kg/mtr)	Wt mm	Weight (Kg/mtr)	Wt mm	Weight (Kg/mtr)	Wt mm	Weight (Kg/mtr)	Wt mm	Weight (Kg/mtr)	
15	1/2	21.3	1.65	0.8	2.11	1	2.77	1.27					
20	3/4	26.70	1.65	1.03	2.11	1.28	2.87	1.68	3.91	2.20	5.54	2.89	
25	1	33.40	1.65	1.30	2.77	2.09	3.38	2.50	4.55	3.24	6.35	4.24	
32	1 1/4	42.20	1.65	1.65	2.77	2.70	3.56	3.38	4.85	4.47	6.35	5.61	
40	1 1/2	48.30	1.65	1.91	2.77	3.11	3.68	4.05	5.08	5.41	7.14	7.25	
50	2	60.30	1.65	2.40	2.77	3.93	3.91	5.44	5.54	7.48	8.74	11.10	
65	2 1/2	73.00	2.11	3.69	3.05	5.26	5.16	8.63	7.01	11.40	9.53	14.90	
80	3	88.90	2.11	4.51	3.05	6.45	5.49	11.30	7.62	15.20	11.10	21.30	

Note: All Dimensions are in mm  
Maximum Length 14 meters





**Innovative  
Seamless Pipes & Tubes  
for a Sustainable and Resilient Future**

## Corporate Address

Ideal Center, First Floor, 9, A J C Bose Road,  
Kolkata, West Bengal - 700017, India.

Tel. : +91 33 4023 7200

## Works

Gopinathpur, Kharagpur Local Chakmakrampur,  
Jethia, Chakmakrampur, Paschim Medinipur, West  
Bengal – 721304, India

## Sales Offices

### NORTH ZONE

B-8, 3rd Floor, Sector - 2,  
Noida, UP - 201301, India

### SOUTH ZONE

VSion Tech Park,  
#857 Poonamallee High Rd,  
Kilpauk, Chennai,  
Tamil Nadu 600 010

### WEST ZONE

Proxima(Arunachal Bhawan),  
8th Floor, Plot no 19, Sector 30A,  
Vashi, Navi Mumbai - 400705,  
Maharashtra, India