



SHREE RAJ STEELS

First chapter Corporate image chapter



Casting National Brand, Striding towards the World Stage

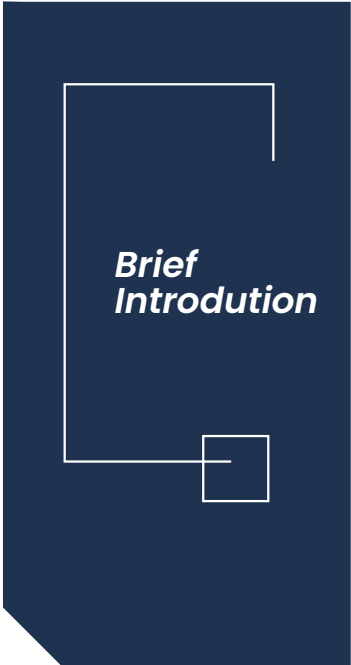
The wide sea allows the fish to leap freely, and the vast sky the birds to fly at will. Under the severe test in the market, SRS is brave to keep enterprising and has gradually established and perfected a modern enterprise management system accommodating market demands.

The mature technology and united talents help SRS to expand towards deeper and wider fields in big strides. Like the rising sun, SRS is striving for making national brand move towards the world. Like a strong and brave eagle, SRS is summoning up all its energy to advance towards the goal of becoming the strongest in the world of Pipe & Fittings industry!



SHREE RAJ STEELS
GSTIN - 27AD297239W12P
Address: Plot No. 1681, Road No. 20, Steel Market, Kalamboli - 410118
Email id: rajsteel@yahoo.com

Scientific and
Technological
Inspiration,
Eternal Charm.



Brief Introduction

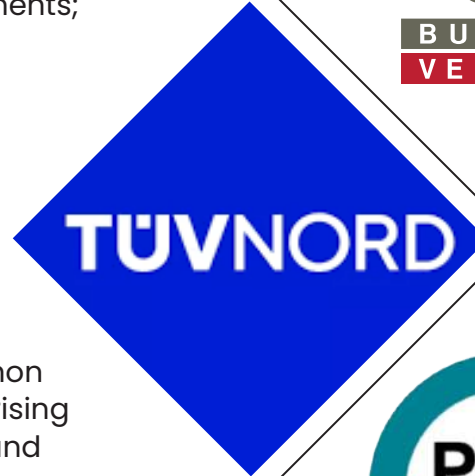
SHREE RAJ STEELS founded in August 2019, comes with more than 40 years of experience in the Pipes & Fittings industry, and is registered under the trademark “SRS”. Company mainly manufactures all grades of materials, specifications of seamless pipes, elbow, tee, reducers, stub ends, pipe cap, flange, special fittings, etc, especially in special steel (such as nickel alloy steel, hard alloy steel, super austenitic steel, super duplex, etc.), and has reached a very mature technical level, being in an industry-leading position. The company pays attention to the policy of talent recruitment and training, attaches great importance to technology research and development and scientific and technological innovation, and has achieved many successes in material research and process innovation. The company has achieved extraordinary results in various fields of qualification certification and in the global sales market. It has established the ISO9001 quality management system, ISO14001 environmental management system, ISO45001 occupational health and safety management system, CE-PED EU Pressure Directive certification, AD2000 German Pressure Vessel Technical Specification certification, etc.

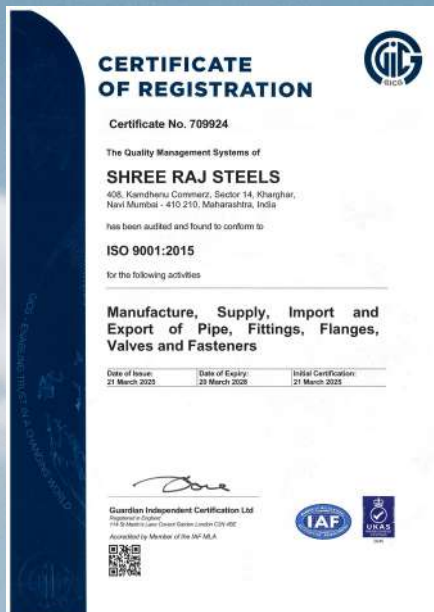
In addition, SRS has provided qualified suppliers for BHEL, ONGC, Techniche, Toyo Engineering, Reliance etc. The company has successfully launched all kinds of high-grade, high-performance, high-standard special steel pipe accessories series. SRS also produces nickel-based alloy steel pipe accessories, super austenitic steel pipe accessories, super duplex steel pipe accessories, and many other special material products. These products are widely used in oil, chemical, liquefied natural gas, nuclear power, ship and marine engineering, power plant boilers, papermaking, water treatment, semiconductor, chip, and many other fields, and are well received by customers. SHREE RAJ STEELS has become a multi-functional enterprise integrating research and development, manufacturing, sales, and service. The company puts forward the business philosophy of “Doing a good job of every piece of pipe & fittings” and implements development with the enterprise vision of “Being the best pipe, fittings and flanges supplier in the world” to improve the competitiveness of the enterprise.



Honor witnesses history and monument is engraved with hardships; honor represents people's affirmation to SRS people's achievements;

the honor is also testified people's non exhausted enterprising spirit, dedication and creative spirit, which is SRS people's power source to keep on creating resplendence as well







Production Equipment

Fine Equipment, Technology Pilot

"Sharp tools make good work". SRS personnel deeply understand the truth. It's far from enough with only advanced management, good conception and well-trained talents. Only after they are equipped with fine equipment, can the enterprise have powerful production capacity and ensure excellent product quality.

SRS has introduced technical talents and internationally advanced production and machining equipment including high precision machining tools, large-sized machining equipment and special technological equipment, providing powerful guarantee for product quality and enterprise development.





Scientific Strengths

SRS considers research and development its core strength, driven by a highly skilled team of experts, consultants, and engineers dedicated to enhancing product quality and innovation.



Metalloscope



Tensile test



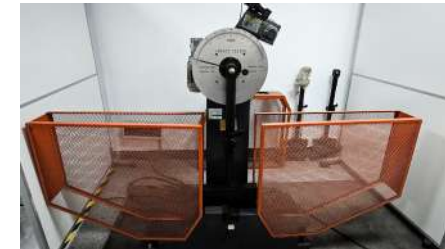
Dimension test



Liquid penetrant Test



Hardness test



Charpy impact test



Acid-Pickling Test



PMI Portable spectrometer



Ultrasonic wt testing



Spectrometer

**Product
Application**

**Chemical
Engineering**

**Nuclear
Energy**

Shipbuilding

**Natural
Gas**

**Food
Industry**

**Water
Disposal**

Petroleum

**Fertilisers
and nitric
acid
industry**



Reserve Force

Because we clearly know the importance of readiness in this competitive market, SRS is always ready with wide range of ready-to-dispatch stock.

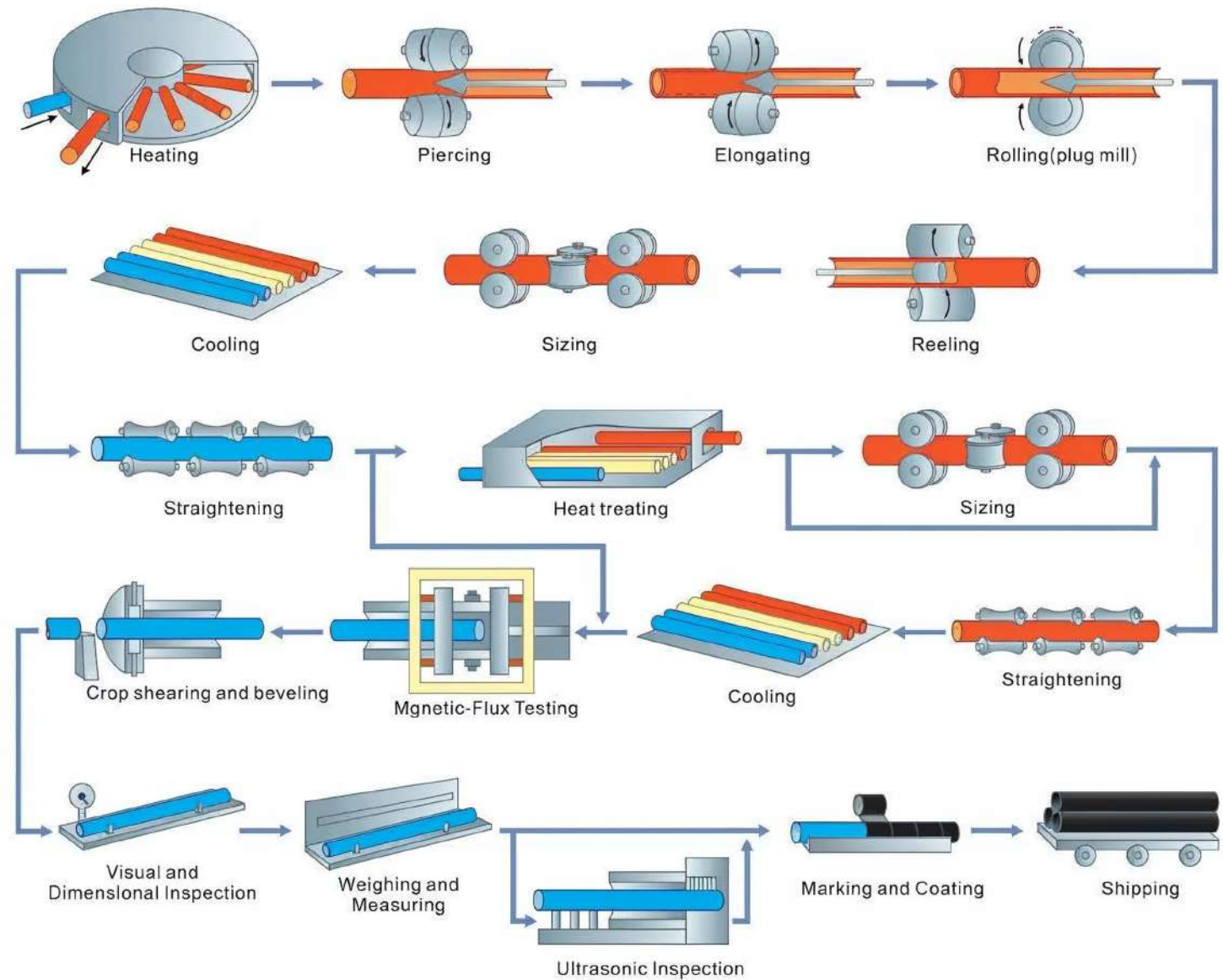


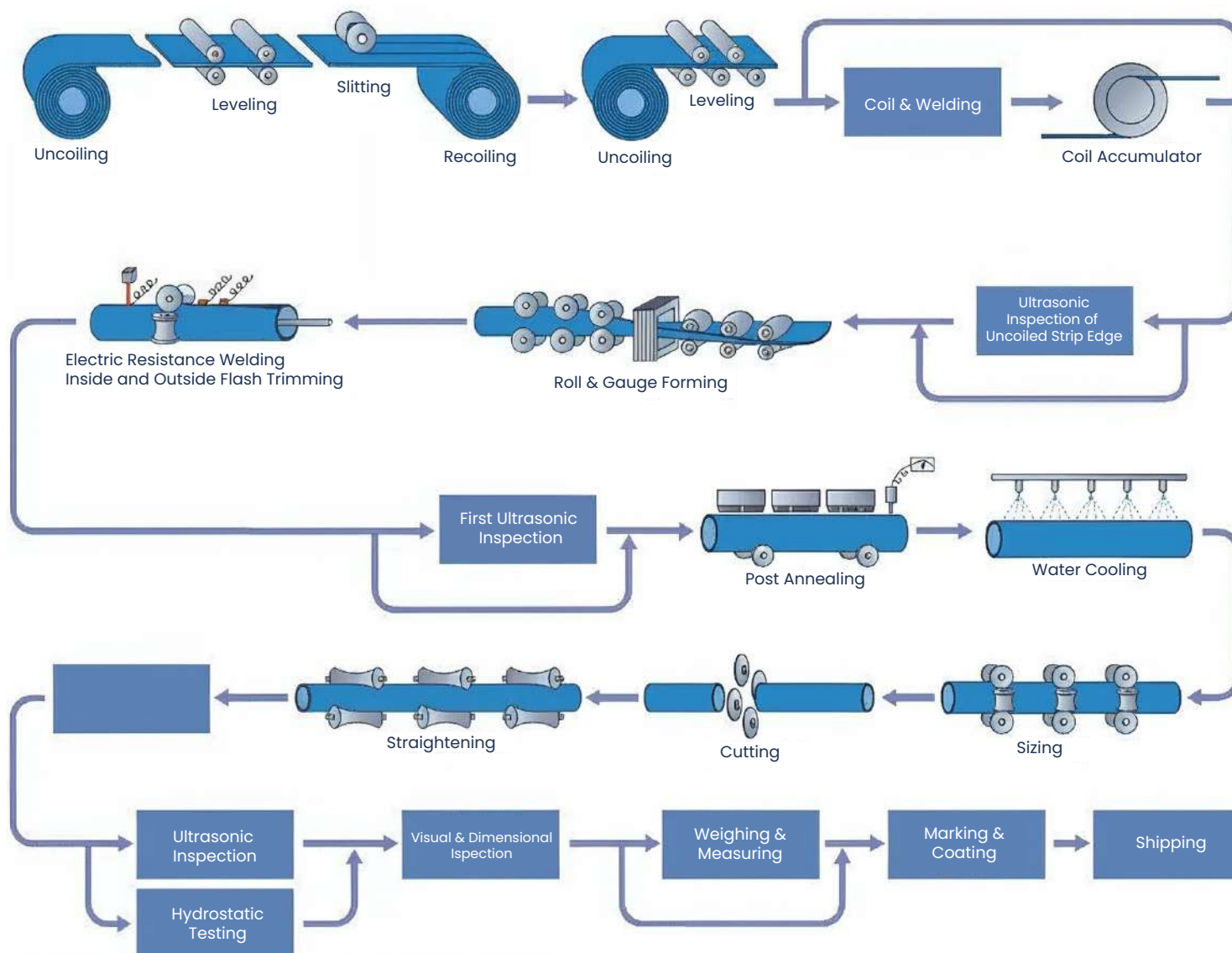


Establishing image by specialization,
winning market by quality

Process Flows

Seamless Pipe





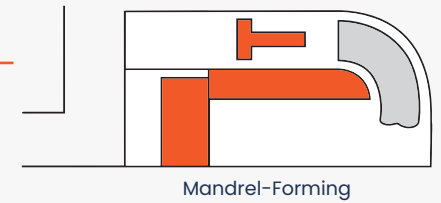
Process Flows

ERW Pipe

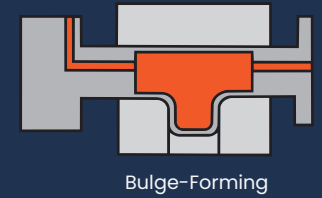
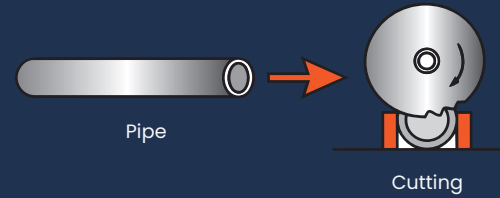
Process Flows

- ① Elbows
- ② Tees
- ③ Reducers
- ④ Caps
- ⑤ Elbows, Tees
- ⑥ Flange

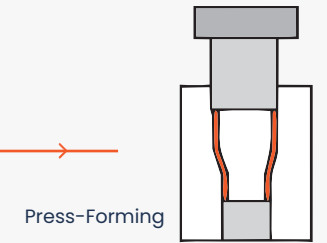
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②

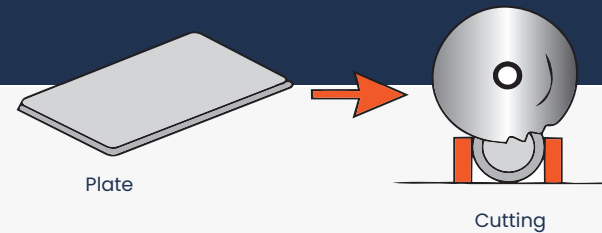


③



For Plated Fitting

④

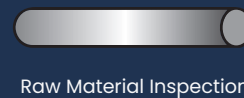


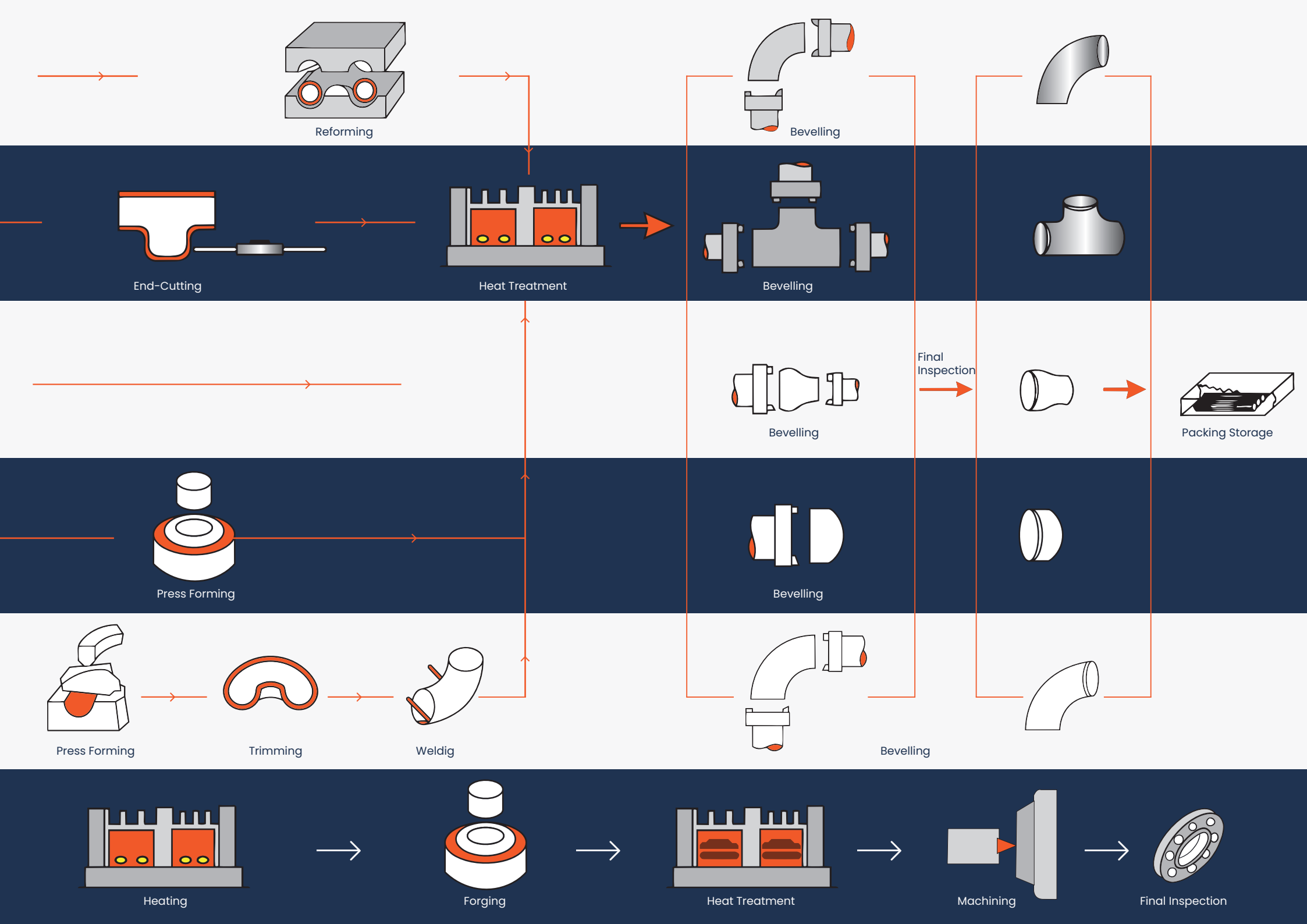
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For Flange

⑥





Second Chapter

Some Products' Show



Innovation is the soul of the enterprise,
SRS people familiar with that company to set up a special new technology
research and development center, responsible for the development of new
products and new technology.

Stagnation is behind, the SRS people adhere to the letter of this innovative concept
into the young group, has become the soul of SRS.



THE REASON WHY YOU CHOOSE SRS

Quality System - ISO system
Industry experience - over 40 years
Management Systems - internal software
Finished product inventory - more than 1500 tons
Raw material inventory - over 400 tons
Shipments of goods - pan India & worldwide



***DELICACY - Represents the
Devotion Put to Details by SRS Personnel***

Pipes & Tubes



(Size):

(Seamless) 1/2"-24" (DN15-DN600)

(Welded)- ERW, HFW, LSAW- 1/2"-60" (DN15-DN1500)

(Standard):

API5L, ASTM A53, A106, A179, A210, A333, A335, A213, DIN2391, IS1239, BS3589

(Thickness): SCH5S-XXS

(Grade):

GR. A,B,C, X-42, 46, 52, 56, 60, 65, 70, 80, PSL 1, PSL2, P1, P2, P5, P6, P9, P11, P12, P22, P91, T1, T2, T5, T9, T11, T21, T22, T91, ST35, ST45, ST52

(Surface Finish):

Black Painted, 3LPE Coated, Bare, Galvanised, Epoxy Coating

Elbows & Bend



(Size):

(Seamless) 1/2"-24" (DN15-DN600)

(Welded)- ERW, 2-JOINT, WX=1- 1/2"-60" (DN15-DN1500)

(Degree): 45 / 90 / 180 or customized degree

(Bending Radius): 1D, 1.5D, 3D, 5D, 6D or customised upto 25D

(Thickness): SCH5S-XXS

(Standard):

- ASME/ANSI B16.9, B16.11, B16.25, B16.28, MSS-SP-43
- EN 10253
- DIN 2605, 2609, 2615, 2616, 2617
- JIS B2311, B2312, B2313

(Grade):

- Carbon Steel- ASTM A234 WPB/C
- Alloy Steel- ASTM, A234, WPI, 2, 5, 9, 11, 22, 91, ASTM A420 Gr.6, ASTM A860 WPHY 42, 46, 52, 60, 65, 70
- Stainless Steel, Duplex, Super Duplex- WP 304/L/H, 316/L/Ti/H, 317L, 310/S, 347/H, 321/H, 904/L, S32750/SAF2507, 532205/SAF2205, 531803, 532760, SMO254
- Monel, Inconel, Hastelloy

(Surface Finish):

Black Painted, 3LPE Coated, Bare, Galvanised, Epoxy Coating, Industrial etc.

Equal & Unequal Tee



(Size):
(Seamless) 1/2"-24" (DN15-DN600)
(Welded)- ERW, 2-JOINT, WX=1- 1/2"-60" (DN15-DN1500)

(Thickness): SCH5S-XXS

(Standard):

- ASME/ANSI B16.9, B16.11, B16.25, B16.28, MSS-SP-43
- EN 10253
- DIN 2605, 2609, 2615, 2616, 2617
- JIS B2311, B2312, B2313

(Grade):

- Carbon Steel- ASTM A234 WPB/C
- Alloy Steel- ASTM, A234, WPI, 2, 5, 9, 11, 22, 91, ASTM A420 Gr.6, ASTM A860 WPHY 42, 46, 52, 60, 65, 70
- Stainless Steel, Duplex, Super Duplex- WP 304/L/H, 316/L/Ti/H, 317L, 310/S, 347/H, 321/H, 904/L, S32750/SAF2507, 532205/SAF2205, 531803, 532760, SMO254
- Monel, Inconel, Hastelloy

(Surface Finish):

Black Painted, 3LPE Coated, Bare, Galvanised, Epoxy Coating Industrial etc.

Concentric & Eccentric Reducers



(Size): 1/2"-60" (DN15-DN1500)

(Thickness): SCH5S-XXS

(Standard):

- ASME/ANSI B16.9, B16.11, B16.25, B16.28, MSS-SP-43
- EN 10253
- DIN 2605, 2609, 2615, 2616, 2617
- JIS B2311, B2312, B2313

(Grade):

- Carbon Steel- ASTM A234 WPB/C
- Alloy Steel- ASTM, A234, WPI, 2, 5, 9, 11, 22, 91, ASTM A420 Gr.6, ASTM A860 WPHY 42, 46, 52, 60, 65, 70
- Stainless Steel, Duplex, Super Duplex- WP 304/L/H, 316/L/Ti/H, 317L, 310/S, 347/H, 321/H, 904/L, S32750/SAF2507, 532205/SAF2205, 531803, 532760, SMO254
- Monel, Inconel, Hastelloy

(Surface Finish):

Black Painted, 3LPE Coated, Bare, Galvanised, Epoxy Coating Industrial etc.

**Product Specification and
Manufacture Scope**

Pipe Cap



(Size): 1/2"-60" (DN15-DN1500)

(Thickness): SCH5S-XXS

(Standard):

- ASME/ANSI B16.9, B16.11, B16.25, B16.28, MSS-SP-43
- EN 10253
- DIN 2605, 2609, 2615, 2616, 2617
- JIS B2311, B2312, B2313

(Grade):

- Carbon Steel- ASTM A234 WPB/C
- Alloy Steel- ASTM, A234, WP1, 2, 5, 9, 11, 22, 91, ASTM A420 Gr.6, ASTM A860 WPHY 42, 46, 52, 60, 65, 70
- Stainless Steel, Duplex, Super Duplex- WP 304/L/H, 316/L/Ti/H, 317L, 310/S, 347/H, 321/H, 904/L, S32750/SAF2507, 532205/SAF2205, 531803, 532760, SMO254
- Monel, Inconel, Hastelloy

(Surface Finish):

Black Painted, 3LPE Coated, Bare, Galvanised, Epoxy Coating, Industrial etc.

Non- Standard Tees- Lateral or Cross



(Size):

(Seamless) 1/2"-24" (DN15-DN600)

(Welded)- ERW, 2-JOINT, WX=1- 1/2"-60" (DN15-DN1500)

(Thickness): SCH5S-XXS

(Standard):

- ASME/ANSI B16.9, B16.11, B16.25, B16.28, MSS-SP-43
- EN 10253
- DIN 2605, 2609, 2615, 2616, 2617
- JIS B2311, B2312, B2313

(Grade):

- Carbon Steel- ASTM A234 WPB/C
- Alloy Steel- ASTM, A234, WP1, 2, 5, 9, 11, 22, 91, ASTM A420 Gr.6, ASTM A860 WPHY 42, 46, 52, 60, 65, 70
- Stainless Steel, Duplex, Super Duplex- WP 304/L/H, 316/L/Ti/H, 317L, 310/S, 347/H, 321/H, 904/L, S32750/SAF2507, 532205/SAF2205, 531803, 532760, SMO254
- Monel, Inconel, Hastelloy

(Surface Finish):

Black Painted, 3LPE Coated, Bare, Galvanised, Epoxy Coating, Industrial etc.

Product Specification and Manufacture Scope

Flanges



(Type):

Weld Neck Flange, Slip-on Flange, Plate Flange, Blind Flange, Socket Weld Flange or customised

(Face Finish):

- American Series- Raised Face(RF), Flat Face(FF), Tongue(T), Groove(G), Female(F), Male(M), Ring Joints Face(RJ), Ring Type Joint(RTJ)
- European Series- Type A(Flat Face), Type B(Raised Face), Type C(Tongue), Type D(Groove), Type E(Spigot), Type F(Recess), Type G(O-Ring Spigot), Type H(O-Ring Groove)

(Size):

1/2"-60" (DN15-DN1500)

(Pressure):

PN 2.5 - PN 400 bar, Class 150- Class 2500

(Standard):

- ANSI B16.5, ASME B16.47, SERIES A/B, B16.48, API 590, API 605
- DIN 2527, 2565, 2573, 2631, 2633/2637, 2641
- JIS B2220, B2261, B8210, KSD3576, KSB6216, KSB1511-
- EN 1092, BS4504, ISO 7005-1, UNI Series

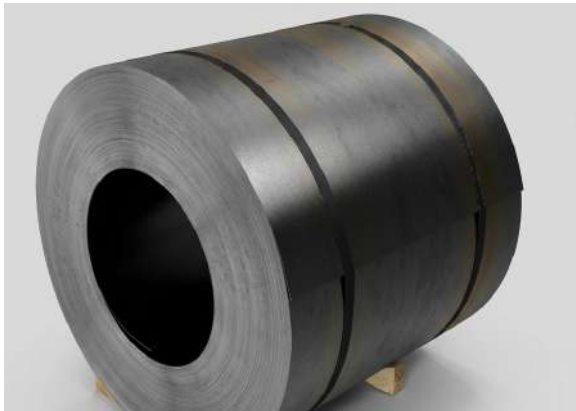
(Grade):

- Carbon Steel- A234, A105, S235JR
- Stainless Steel- ASTM A182 F304/304L, F316/316L, 310S, 317, 347, 904L
- Alloy Steel- ASTM A182 F1, F5a, F9, F11, F12, F22, F91
- Monel, Inconel, Hastelloy

(Surface Finish):

Cladded, Bare, Anti-Rust Transparent Oil, Galvanised

Carbon Steel Flat Products



- | | | |
|-------------------------------------|---|-------------------|
| • HR Coil or sheets - | IS2062: E250/350 -
ASTM A516 Gr. 60/70 | 1.6mm to 25mm thk |
| • Chequered Coil or sheets - | IS2062 -
IS3502 - | 2.5mm to 10mm thk |
| • CR Coil or sheets - | IS513 CR1/CR2 - | 0.3mm to 3mm thk |
| • GP Coil or sheets - | IS277 80/120/180/275gsm | 0.3mm to 3mm thk |
| • Colour Coated Coil or -
sheets | IS15961 | 0.3mm to 2mm thk |

Third chapter Data Reference

*Technical
Data*



Quality is the life of an enterprise.
The enterprise that wishes to brave the wind and the waves in the competition and stand at the invincible position relies on the excellent and reliable quality and top ranking service.
Sincerity is the fundamental required by market economy to the enterprise. The enterprise regards sincerity as the basis for establishment, foundation for development and source for reputation.

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OUTSIDE DIAMETER AND WALL THICKNESS ASME B36.10M, B36.19M

NOMINAL PIPE SIZE		Outside Diameter	NOMINAL WALL THICKNESS																
DN	NPS	OD	SCH 5S	SCH10S	SCH 10	SCH 20	SCH 30	SCH40S	STD	SCH40	SCH60	SCH80S	XS	SCH80	SCH 100	SCH 120	SCH140	SCH 160	XXS
6	1/8.	10.3	—	1.24	—	—	—	1.73	1.73	1.73	—	2.41	2.41	2.41	—	—	—	—	—
8	1/4.	13.7	—	1.65	—	—	—	2.24	2.24	2.24	—	3.02	3.02	3.02	—	—	—	—	—
10	3/8.	17.1	—	1.65	—	—	—	2.31	2.31	2.31	—	3.20	3.20	3.20	—	—	—	—	—
15	1/2.	21.3	1.65	2.11	—	—	—	2.77	2.77	2.77	—	3.73	3.73	3.73	—	—	—	4.78	7.47
20	3/4.	26.7	1.65	2.11	—	—	—	2.87	2.87	2.87	—	3.91	3.91	3.91	—	—	—	5.56	7.82
25	1	33.4	1.65	2.77	—	—	—	3.38	3.38	3.38	—	4.55	4.55	4.55	—	—	—	6.35	9.09
32	1 1/4	42.2	1.65	2.77	—	—	—	3.56	3.56	3.56	—	4.85	4.85	4.85	—	—	—	6.35	9.70
40	1 1/2	48.3	1.65	2.77	—	—	—	3.68	3.68	3.68	—	5.08	5.08	5.08	—	—	—	7.14	10.15
50	2	60.3	1.65	2.77	—	—	—	3.91	3.91	3.91	—	5.54	5.54	5.54	—	—	—	8.74	11.07
65	2 1/2	73	2.11	3.05	—	—	—	5.16	5.16	5.16	—	7.01	7.01	7.01	—	—	—	9.53	14.02
80	3	88.9	2.11	3.05	—	—	—	5.49	5.49	5.49	—	7.62	7.62	7.62	—	—	—	11.13	15.24
90	3 1/2	101.6	2.11	3.05	—	—	—	5.74	5.74	5.74	—	8.08	8.08	8.08	—	—	—	—	—
100	4	114.3	2.11	3.05	—	—	—	6.02	6.02	6.02	—	8.56	8.56	8.56	—	11.13	—	13.49	17.12
125	5	141.3	2.77	3.40	—	—	—	6.55	6.55	6.55	—	9.53	9.53	9.53	—	12.70	—	15.88	19.05
150	6	168.3	2.77	3.40	—	—	—	7.11	7.11	7.11	—	10.97	10.97	10.97	—	14.27	—	18.26	21.95
200	8	219.1	2.77	3.76	—	6.35	7.04	8.18	8.18	8.18	10.31	12.70	12.70	12.70	15.09	18.26	20.62	23.01	22.23
250	10	273.1	3.40	4.19	—	6.35	7.80	9.27	9.27	9.27	12.70	12.70	12.70	12.70	18.26	21.44	25.4	28.58	25.40
300	12	323.9	3.96	4.57	—	6.35	8.38	9.53	9.53	10.31	14.27	12.70	12.70	12.70	21.44	25.4	28.58	33.32	25.40
350	14	355.6	3.96	4.78	6.35	7.92	9.53	—	9.53	11.13	15.09	—	12.70	15.09	23.83	27.79	31.75	35.71	—
400	16	406.4	4.19	4.78	6.35	7.92	9.53	—	9.53	12.7	16.66	—	12.70	21.44	26.19	30.96	36.53	40.49	—
450	18	457.2	4.19	4.78	6.35	7.92	11.13	—	9.53	14.27	19.05	—	12.70	23.83	29.36	34.93	39.67	45.24	—
500	20	508	4.78	5.54	6.35	9.53	12.70	—	9.53	15.09	20.62	—	12.70	26.19	32.54	38.10	44.45	50.01	—
550	22	559	4.78	5.54	6.35	9.53	12.70	—	9.53	—	22.23	—	12.70	28.58	34.93	41.28	47.63	53.98	—
600	24	610	5.54	6.35	6.35	9.53	14.27	—	9.53	17.48	24.61	—	12.70	30.96	38.89	46.02	52.37	59.54	—
650	26	660	—	—	7.92	12.70	—	—	9.53	—	—	—	12.70	—	—	—	—	—	—
700	28	711	—	—	7.92	12.70	15.88	—	9.53	—	—	—	12.70	—	—	—	—	—	—
750	30	762	6.35	7.92	7.92	12.70	15.88	—	9.53	—	—	—	12.70	—	—	—	—	—	—
800	32	813	—	—	7.92	12.70	15.88	—	9.53	17.48	—	—	12.70	—	—	—	—	—	—
850	34	864	—	—	7.92	12.70	15.88	—	9.53	17.48	—	—	12.70	—	—	—	—	—	—
900	36	914	—	—	7.92	12.70	15.88	—	9.53	19.05	—	—	12.70	—	—	—	—	—	—
950	38	965	—	—	—	—	—	—	9.53	—	—	—	12.70	—	—	—	—	—	—
1000	40	1016	—	—	—	—	—	—	9.53	—	—	—	12.70	—	—	—	—	—	—
1050	42	1067	—	—	—	—	—	—	9.53	—	—	—	12.70	—	—	—	—	—	—
1100	44	1118	—	—	—	—	—	—	9.53	—	—	—	12.70	—	—	—	—	—	—
1150	46	1168	—	—	—	—	—	—	9.53	—	—	—	12.70	—	—	—	—	—	—
1200	48	1219	—	—	—	—	—	—	9.53	—	—	—	12.70	—	—	—	—	—	—

Pipes & Tubes

(Size):
 (Seamless) 1/2"-24" (DN15-DN600)
 (Welded)- ERW, HFW, LSAW- 1/2"-60"
 (DN15-DN1500)

(Standard):
 API5L, ASTM A53, A106, A179, A210, A333,
 A335, A213, DIN2391, IS1239, BS3589

(Thickness): SCH5S-XXS

(Grade):
 GR. A,B,C, X-42, 46, 52, 56, 60, 65, 70, 80, PSL
 1, PSL2, PL,
 P2, P5, P6, P9, P11, P12, P22, P91, T1, T2, T5, T9,
 T11, T21, T22, T91, ST35, ST45, ST52

(Surface Finish):
 Black Painted, 3LPE Coated, Bare,
 Galvanised, Epoxy Coating

Email Address: srsteelbby@gmail.com
 Website: www.shreerajsteels.com

Contact: +91 7069672923 | +91 7400410762

OUTSIDE DIAMETER AND WALL THICKNESS JIS B2312, B2312, B2313

NOMINAL PIPE SIZE		Outside Diameter	NOMINAL WALL THICKNESS																	
DN	NPS	OD	SGP	SCH 5S	SCH10S	SCH 10	SCH 20	SCH 30	SCH40S	STD	SCH40	SCH60	SCH80S	XS	SCH80	SCH 100	SCH 120	SCH140	SCH 160	XXS
15	1/2.	21.3	2.8	1.65	2.1	—	2.5	—	2.8	2.8	2.8	—	3.7	3.7	3.7	—	—	—	4.8	7.47
20	3/4.	26.7	2.8	1.65	2.1	—	2.5	—	2.9	2.9	2.9	—	3.9	3.9	3.9	—	—	—	5.6	7.8
25	1	33.0	3.2	1.65	2.8	—	3.0	—	3.4	3.4	3.4	—	4.5	4.5	4.5	—	—	—	6.4	9.1
32	1 1/4	42.7	3.5	1.65	2.8	—	3.0	—	3.6	3.6	3.6	—	4.9	4.9	4.9	—	—	—	6.4	9.7
40	1 1/2	48.6	3.5	1.65	2.8	—	3.0	—	3.7	3.7	3.7	—	5.1	5.1	5.1	—	—	—	7.1	10.2
50	2	60.5	3.8	1.65	2.8	—	3.5	—	3.9	3.9	3.9	—	5.5	5.5	5.5	—	—	—	8.7	11.1
65	2 1/2	76.3	4.2	2.1	3.0	—	3.5	—	5.2	5.2	5.2	—	7.0	7.0	7.0	—	—	—	9.5	14
80	3	89.1	4.2	2.1	3.0	—	4.0	—	5.5	5.5	5.5	—	7.6	7.6	7.6	—	—	—	11.1	15.2
90	3 1/2	101.6	4.2	2.1	3.0	—	4.0	—	5.7	5.7	5.7	—	8.1	8.1	8.1	—	—	—	—	—
100	4	114.3	4.5	2.1	3.0	—	4.0	—	6.0	6.0	6.0	—	8.6	8.6	8.6	—	11.1	—	13.5	17.1
125	5	139.8	4.5	2.8	3.4	—	5.0	—	6.6	6.6	6.6	—	9.5	9.5	9.5	—	12.7	—	15.9	19
150	6	165.2	5.0	2.8	3.4	—	5.0	—	7.1	7.1	7.1	—	11.0	11.0	11.0	—	14.3	—	18.2	21.9
200	8	216.3	5.8	2.8	4.0	—	6.5	7	8.2	8.2	8.2	10.3	12.7	12.7	12.7	15.1	18.2	20.6	23	22.2
250	10	267.4	6.6	3.4	4.0	—	6.5	7.8	9.3	9.3	9.3	12.7	12.7	12.7	15.1	18.3	21.4	25.4	28.6	25.4
300	12	318.5	6.9	4.0	4.5	—	6.5	8.4	9.5	9.5	10.3	14.3	12.7	12.7	17.4	21.4	25.4	28.6	33.3	25.4
350	14	355.6	6.9	4.5	5.0	6.4	8.0	9.5	9.5	9.5	11.1	15.1	—	12.7	19.0	23.8	27.8	31.8	35.7	—
400	16	406.4	7.9	4.5	5.0	6.4	8.0	9.5	9.5	9.5	12.7	16.7	—	12.7	21.4	26.2	30.9	36.5	40.5	—
450	18	457.2	7.9	4.5	5.0	6.4	8.0	11.1	9.5	9.5	14.3	19.0	—	12.7	23.8	29.4	34.9	39.7	45.2	—
500	20	508	7.9	5	5.5	6.4	9.5	12.7	9.5	9.5	15.1	20.6	—	12.7	26.2	32.5	38.1	44.4	50.0	—
550	22	558.8	7.9	5	5.5	6.4	9.5	12.7	9.5	9.5	15.9	22.2	—	12.7	28.6	34.9	41.3	47.6	54.0	—
600	24	609.6	—	5.5	6.5	6.4	12.7	14.3	9.5	9.5	17.5	24.6	—	12.7	31.0	38.9	46.0	52.4	59.5	—
650	26	660.4	—	5.5	8.0	7.9	12.7	—	—	9.5	—	—	—	12.7	34.0	—	—	—	—	—
700	28	711.2	—	6.5	8.0	7.9	12.7	15.9	—	9.5	17.5	—	—	12.7	—	—	—	—	—	—
750	30	762	—	—	8.0	7.9	12.7	15.9	9.5	9.5	17.5	—	—	12.7	—	—	—	—	—	—
800	32	812.8	—	—	8.0	7.9	12.7	15.9	—	9.5	17.5	—	—	12.7	—	—	—	—	—	—
850	34	863.6	—	—	8.0	7.9	12.7	15.9	—	9.5	19.1	—	—	12.7	—	—	—	—	—	—
900	36	914.4	—	—	8.0	7.9	—	15.9	—	9.5	—	—	—	12.7	—	—	—	—	—	—
950	38	965.2	—	—	—	—	14.3	—	—	9.5	26.2	—	—	12.7	—	—	—	—	—	—
1000	40	1016.0	—	—	9.5	—	—	—	—	9.5	—	—	—	12.7	—	—	—	—	—	—
1050	42	1066.8	—	—	—	—	—	—	—	9.5	—	—	—	12.7	—	—	—	—	—	—
1100	44	1117.6	—	—	—	—	—	—	—	9.5	—	—	—	12.7	—	—	—	—	—	—
1150	46	1168.4	—	—	—	—	—	—	—	9.5	—	—	—	12.7	—	—	—	—	—	—
1200	48	1219.2	—	—	—	—	—	—	—	9.5	—	—	—	12.7	—	—	—	—	—	—

Pipes & Tubes

(Size):
 (Seamless) 1/2"-24" (DN15-DN600)
 (Welded)- ERW, HFW, LSAW- 1/2"-60"
 (DN15-DN1500)

(Standard):
 API5L, ASTM A53, A106, A179, A210, A333,
 A335, A213, DIN2391, IS1239, BS3589

(Thickness): SCH5S-XXS

(Grade):
 GR. A,B,C, X-42, 46, 52, 56, 60, 65, 70, 80, PSL
 1, PSL2, PL,
 P2, P5, P6, P9, P11, P12, P22, P91, T1, T2, T5, T9,
 T11, T21, T22, T91, ST35, ST45, ST52

(Surface Finish):
 Black Painted, 3LPE Coated, Bare,
 Galvanised, Epoxy Coating

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MATERIAL SPECIFICATION FOR PIPES & TUBES OF STAINLESS STEEL, ALLOY STEEL, CARBON STEEL & MILD STEEL

PIPE SPECIFICATION	CHEMICAL PROPERTIES								MECHANICAL PROPERTIES			OTHERS
	C%	Mn%	P% (Max)	S% (Max)	Si%	Cr%	Ni%	Mo%	U.T.S. (Min) Mpa	Y.S. (Min) Mpa	ELONG. (Min) L T	
API 5L Gr. A	0.22 Max	0.90 Max	0.030	0.030	-	-	-	-	331	207	e=625 000 A ^{0.2} / U ^{0.9}	For Seamless : C% Will be 0.028 for Gr. B to x 70 Mn% will be 1.40 for Gr. X65 to X 70
API 5L Gr. B	0.26 Max	1.20 Max	0.030	0.030	-	-	-	-	414	241		
API 5L Gr. X 42	0.26 Max	1.30 Max	0.030	0.030	-	-	-	-	414	290		
API 5L Gr. X 46	0.26 Max	1.40 Max	0.030	0.030	-	-	-	-	434	317		
API 5L Gr. X 52	0.26 Max	1.40 Max	0.030	0.030	-	-	-	-	455	359		
API 5L Gr. X 56	0.26 Max	1.40 Max	0.030	0.030	-	-	-	-	490	386		
API 5L Gr. X 60	0.26 Max	1.45 Max	0.030	0.030	-	-	-	-	517	414		
API 5L Gr. X 65	0.26 Max	1.65 Max	0.030	0.030	-	-	-	-	531	448		
API 5L Gr. X 70	0.26 Max	1.65 Max	0.030	0.030	-	-	-	-	565	483		
BS 3059 PT-I Gr. 320	0.16 Max	0.30-0.70	0.040	0.040	0.35 Max	-	-	-	320-480	195	25	
BS 3059 PT-II Gr. 360	0.17 Max	0.40-0.80	0.035	0.035	0.10-0.35	-	-	-	360-500	235	24	
BS 3059 PT-II Gr. 440	0.12-0.18	0.90-1.20	0.035	0.035	0.10-0.35	-	-	-	440-580	245	21	
BS 3059 PT-I Gr. 620	0.10-0.15	0.40-0.70	0.030	0.030	0.10-0.35	0.70-0.10	-	0.45-0.65	460-610	180	22	
BS 6323 Gr. 1	0.13 Max	0.60 Max	0.050	0.050	-	-	-	-	300	200	20	
BS 6323 Gr. 2	0.16 Max	0.70 Max	0.050	0.050	-	-	-	-	340	250	15	
BS 6323 Gr. 3	0.20 Max	0.90 Max	0.050	0.050	0.35 Max	-	-	-	400	300	12	
BS 1387	0.20 Max	1.20 Max	0.045	0.045	-	-	-	-	320-460	195	20	
DIN 17175 Gr. St 35.8	0.17 Max	0.40-0.80	0.040	0.040	0.10-0.35	-	-	-	225	360-480	25	
DIN 17175 Gr. St 45.8	0.21 Max	0.40-1.20	0.040	0.040	0.10-0.35	-	-	-	245	410-530	21	
DIN 17175 Gr. 17Mn4	0.14-0.20	0.90-1.20	0.040	0.040	0.20-0.40	0.30 Max	-	-	275	460-580	23	
DIN 17175 Gr. 19Mn5	0.17-0.22	1.00-1.30	0.040	0.040	0.30-0.36	0.30 Max	-	-	315	510-610	19	
DIN 17175 Gr. 15Mo3	0.12-0.20	0.40-0.80	0.035	0.035	0.10-0.35	-	-	0.25-0.35	275	550-600	22	
DIN 17175 Gr. 13CrMo44	0.10-0.18	0.40-0.80	0.035	0.035	0.10-0.35	0.70-1.10	-	0.45-0.65	295	440-590	22	
DIN 17175 Gr. 10CrMo910	0.08-0.15	0.40-0.70	0.035	0.035	0.50 Max	2.00-2.50	-	0.90-1.20	385	550-600	20	
DIN 17175 Gr. 13CrMo910	0.10-0.18	0.40-0.70	0.035	0.035	0.10-0.35	0.70-1.10	-	0.45-0.65	295	440-590	22	
DIN 17175 Gr. 14MoV63	0.10-0.18	0.40-0.70	0.035	0.035	0.10-0.35	0.50-0.70	-	0.50-0.70	325	460-610	20	
DIN 17175 Gr. X20CrMoV121	0.17-0.23	1.00 Max	0.030	0.030	0.50 Max	0.80-1.20	0.30-0.80	0.80-1.20	490	690-850	17	
IS 1239 Part I	-	-	0.050	0.050	-	-	-	-	320	-	20	
IS 3589 Gr. Fe 380	0.16 Max	1.20 Max	0.040	0.040	-	-	-	-	330	195	20	
IS 3589 Gr. Fe 410	0.20 Max	1.30 Max	0.040	0.040	-	-	-	-	410	235	18	
IS 1979 Gr. YST 290	0.28 Max	1.25 Max	0.040	0.050	-	-	-	-	410	290	e=1942 57 A ^{0.2} / U ^{0.9}	
IS 1979 Gr. YST 320	0.30 Max	1.35 Max	0.040	0.050	-	-	-	-	430	320		
IS 1979 Gr. YST 360	0.30 Max	1.35 Max	0.040	0.050	-	-	-	-	450	360		
IS 1979 Gr. YST 390	0.26 Max	1.35 Max	0.040	0.050	-	-	-	-	490	390		
IS 1979 Gr. YST 410	0.26 Max	1.35 Max	0.040	0.050	-	-	-	-	520	410		
IS 1979 Gr. YST 450	0.26 Max	1.40 Max	0.040	0.050	-	-	-	-	530	450		
IS 1979 Gr. YST 480	0.26 Max	1.60 Max	0.040	0.040	-	-	-	-	565	480		
IS 1978 Gr. YST 210	0.22 Max	0.90 Max	0.040	0.050	-	-	-	-	330	210		
IS 1978 Gr. YST 240	0.27 Max	1.15 Max	0.040	0.050	-	-	-	-	410	240		

PIPES & TUBES ASTM / API / BS / DIN / IS

Pipes & Tubes

(Size):
(Seamless) 1/2"-24" (DN15-DN600)
(Welded)- ERW, HFW, LSAW- 1/2"-60"
(DN15-DN1500)

(Standard):
API5L, ASTM A53, A106, A179, A210, A333,
A335, A213, DIN2391, IS1239, BS3589

(Thickness): SCH5S-XXS

(Grade):
GR. A,B,C, X-42, 46, 52, 56, 60, 65, 70, 80, PSL
1, PSL2, PL,
P2, P5, P6, P9, P11, P12, P22, P91, T1, T2, T5, T9,
T11, T21, T22, T91, ST35, ST45, ST52

(Surface Finish):
Black Painted, 3LPE Coated, Bare,
Galvanised, Epoxy Coating

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MATERIAL SPECIFICATION FOR PIPES & TUBES STAINLESS STEEL ALLOY STEEL, CARBON STEEL & MILD STEEL

PIPE SPECIFICATION	CHEMICAL PROPERTIES								MECHANICAL PROPERTIES			OTHERS	
	C%	Mn%	P% (Max)	S% (Max)	Si%	Cr%	Ni%	Mo%	U.T.S. (Min) Mpa	Y.S. (Min) Mpa	ELONG. (Min)		
ASTM A 312 Gr. TP 304	0.080 Max	2.00 Max	0.045	0.030	1.00 Max	18.0-20.0	8.0-11.0	-	515	205	35	25	-
ASTM A 312 Gr. TP 304L	0.035 Max	2.00 Max	0.045	0.030	1.00 Max	18.0-20.0	8.0-13.0	-	485	170	35	25	-
ASTM A 312 Gr. TP 304H	0.04-0.10	2.00 Max	0.045	0.030	1.00 Max	18.0-20.0	8.0-11.0	-	515	205	35	25	-
ASTM A 312 Gr. TP 304LN	0.035 Max	2.00 Max	0.045	0.030	1.00 Max	18.0-20.0	8.0-12.0	-	515	205	35	25	N%=0.10-0.16
ASTM A 312 Gr. TP 309S	0.080 Max	2.00 Max	0.045	0.030	1.00 Max	22.0-24.0	12.0-15.0	0.75 Max	515	205	35	25	-
ASTM A 312 Gr. TP 310S	0.080 Max	2.00 Max	0.045	0.030	1.00 Max	24.0-26.0	19.0-22.0	0.75 Max	515	205	35	25	-
ASTMA 312 Gr. TP 316	0.080 Max	2.00 Max	0.045	0.030	1.00 Max	16.0-18.0	11.0-14.0	2.00-3.00	515	205	35	25	-
ASTM A 312 Gr. TP 316L	0.035 Max	2.00 Max	0.045	0.030	1.00 Max	16.0-18.0	10.0-14.0	2.00-3.00	485	170	35	25	-
ASTMA 312 Gr. TP 316H	0.04-0.10	2.00 Max	0.045	0.030	1.00 Max	16.0-18.0	11.0-14.0	2.00-3.00	515	205	35	25	-
ASTM A 312 Gr. TP 316LN	0.035 Max	2.00 Max	0.045	0.030	1.00 Max	16.0-18.0	11.0-14.0	2.00-3.00	515	205	35	25	N%=0.10-0.16
ASTMA 312 Gr. TP 317	0.080 Max	2.00 Max	0.045	0.030	1.00 Max	18.0-20.0	11.0-14.0	3.00-4.00	515	205	35	25	-
ASTM A 312 Gr. TP 317L	0.035 Max	2.00 Max	0.045	0.030	1.00 Max	18.0-20.0	11.0-15.0	3.00-4.00	515	205	35	25	-
ASTMA 312 Gr. TP 321	0.080 Max	2.00 Max	0.045	0.030	1.00 Max	17.0-19.0	9.0-12.0	-	515	205	35	25	Ti%=(5XC)-0.70
ASTM A 312 Gr. TP 321H	0.04-0.10	2.00 Max	0.045	0.030	1.00 Max	17.0-19.0	9.0-12.0	-	515	205	35	25	Ti%=(4XC)-0.60
ASTM A 312Gr. TP 347	0.080 Max	2.00 Max	0.045	0.030	1.00 Max	17.0-19.0	9.0-13.0	-	515	205	35	25	Cb%=(10XC)-1.00
ASTM A 312 Gr. TP 347H	0.04-0.10	2.00 Max	0.045	0.030	1.00 Max	17.0-19.0	9.0-13.0	-	515	205	35	25	Cb%=(8XC)-1.10
ASTM A 312 Gr. 904L	0.020 Max	2.00 Max	0.045	0.030	1.00 Max	19.0-23.0	23.0-28.0	4.00-5.00	490	220	35		Cu% = 1.0-2.0
ASTM A 358 Gr. TP 304	0.080 Max	2.00 Max	0.045	0.030	0.75 Max	18.0-20.0	8.0-10.5	-	515	205	40		N%=0.10 Max, HRB=92 Max
ASTM A 358 Gr. TP 304L	0.035 Max	2.00 Max	0.045	0.030	0.75 Max	18.0-20.0	8.0-12.0	-	485	170	40		N%=0.10 Max, HRB=92 Max
ASTM A 358 Gr. TP 309S	0.080 Max	2.00 Max	0.045	0.030	0.75 Max	22.0-24.0	12.0-15.0	-	515	205	40		HRB=95 Max
ASTM A 358 Gr. TP 310S	0.080 Max	2.00 Max	0.045	0.030	1.50 Max	24.0-26.0	19.0-22.0	-	515	205	40		HRB=95 Max
ASTM A 358 Gr. TP 316	0.080 Max	2.00 Max	0.045	0.030	0.75 Max	16.0-18.0	10.0-14.0	2.00-3.00	515	205	40		N%=0.10 Max, HRB=95 Max
ASTM A 358 Gr. TP 316L	0.035 Max	2.00 Max	0.045	0.030	0.75 Max	16.0-18.0	10.0-14.0	2.00-3.00	485	170	40		N%=0.10 Max, HRB=95 Max
ASTM A 358 Gr. TP 321	0.080 Max	2.00 Max	0.045	0.030	0.75 Max	17.0-19.0	9.0-12.0	-	515	205	40		N%=0.10 Max, Ti%=5X(C+N)-0.70, HRB=95 Max
ASTM A 358 Gr. TP 347	0.080 Max	2.00 Max	0.045	0.030	0.75 Max	17.0-19.0	9.0-13.0	-	515	205	40		Cb%=(10XC)-1.00, HRB=92 Max
ASTMA 106 Gr. A	0.25 Max	0.27-0.93	0.035	0.035	0.10 Min	0.40 Max	0.40 Max	0.15 Max	330	205	35	25	Cu%:0.40 Max, Va%: 0.08
ASTM A 106 Gr. B	0.30 Max	0.29-1.06	0.035	0.035	0.10 Min	0.40 Max	0.40 Max	0.15 Max	415	240	30	16.5	Cu%:0.40 Max, Va%: 0.08
ASTMA 106 Gr. C	0.35 Max	0.29-1.06	0.035	0.035	0.10 Min	0.40 Max	0.40 Max	0.15 Max	485	275	30	16.5	Cu%:0.40 Max, Va%: 0.08
ASTMA 53 Gr. A	0.25 Max	0.95 Max	0.050	0.045	-	0.40 Max	0.40 Max	0.15 Max	330	205	30	16.5	Cu%:0.40 Max, Va%: 0.08
ASTMA 53 Gr. B	0.30 Max	1.20 Max	0.050	0.045	-	0.40 Max	0.40 Max	0.15 Max	415	240	30	16.5	Cu%:0.40 Max, Va%: 0.08
ASTM A 333 Gr. 1	0.30 Max	0.40-1.06	0.025	0.025	-	-	-	-	380	205	35	25	Impact Test= -45 °C, J=18 Min, HRB=85 Max
ASTMA 333 Gr. 6	0.30 Max	0.29-1.06	0.025	0.025	0.10 Min	-	-	-	415	240	30	16.5	Impact Test= -45 °C, J=18 Min, HRB=85 Max
ASTM A 335 Gr. P1	0.10-0.20	0.30-0.80	0.025	0.025	0.10-0.50	-	-	0.44-0.65	380	205	30	20	
ASTMA 335 Gr. P2	0.10-0.20	0.30-0.61	0.025	0.025	0.10-0.30	0.50-0.81	-	0.44-0.65	380	205	30	20	
ASTM A 335 Gr. P5	0.15 Max	0.30-0.60	0.025	0.025	0.50 Max	4.00-6.00	-	0.45-0.65	415	205	30	20	
ASTMA 335 Gr. P9	0.15 Max	0.30-0.60	0.025	0.025	0.25-1.00	8.00-10.00	-	0.90-1.10	415	205	30	20	
ASTM A 335 Gr. P11	0.05-0.15	0.30-0.60	0.025	0.025	0.50-1.00	1.00-1.50	-	0.44-0.65	415	205	30	20	
ASTM A 335 Gr. P12	0.05-0.15	0.30-0.61	0.025	0.025	0.50 Max	0.80-1.25	-	0.44-0.65	415	220	30	20	
ASTM A 335 Gr. P22	0.05-0.15	0.30-0.60	0.025	0.025	0.50 Max	1.90-2.60	-	0.87-1.13	415	205	30	20	
ASTM A 335 Gr. P91	0.08-0.12	0.30-0.60	0.020	0.010	0.20-0.50	8.00-9.50	0.40 Max	0.85-1.05	620	440	20	-	V%=0.18-0.25, N%=0.030-0.070, A%=0.02 Max, Cb%=0.06-0.10
ASTM A 213 Gr. T2	0.10-0.20	0.30-0.61	0.025	0.025	0.10-0.30	0.50-0.81	-	0.44-0.65	415	205	30		HRB=85 Max
ASTMA 213 Gr. T5	0.15 Max	0.30-0.60	0.025	0.025	0.50 Max	4.00-6.00	-	0.45-0.65	415	205	30		HRB=85 Max
ASTM A 213 Gr. T11	0.05-0.15	0.30-0.60	0.025	0.025	0.50-1.00	1.00-1.50	-	0.44-0.65	415	205	30		HRB=85 Max
ASTMA 213 Gr. T12	0.05-0.15	0.30-0.61	0.025	0.025	0.50 Max	0.80-1.25	-	0.44-0.65	415	220	30		HRB=85 Max
ASTM A 213 Gr. T22	0.05-0.15	0.30-0.60	0.025	0.025	0.50 Max	1.90-2.60	-	0.87-1.13	415	205	30		HRB=85 Max
ASTMA 179	0.06-0.18	0.27-0.63	0.035	0.035	-	-	-	-	325	180	35		HRB=72 Max
ASTM A 210 Gr. A1	0.27 Max	0.93 Max	0.035	0.035	0.10 Min	-	-	-	415	255	30		HRB=79 Max

PIPES & TUBES ASTM / API / BS / DIN / IS

Pipes & Tubes

(Size):
 (Seamless) 1/2"-24" (DNI5-DN600)
 (Welded)- ERW, HFW, LSAW- 1/2"-60"
 (DNI5-DNI500)

(Standard):
 API5L, ASTM A53, A106, A179, A210, A333,
 A335, A213, DIN2391, IS1239, BS3589

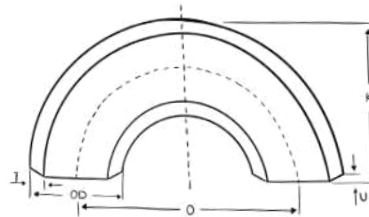
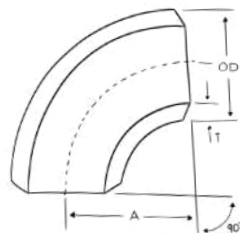
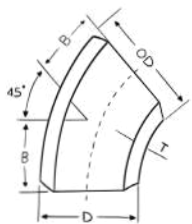
(Thickness): SCH5S-XXS

(Grade):
 GR. A,B,C, X-42, 46, 52, 56, 60, 65, 70, 80, PSL
 1, PSL2, PL,
 P2, P5, P6, P9, P11, P12, P22, P91, T1, T2, T5, T9,
 T11, T21, T22, T91, ST35, ST45, ST52

(Surface Finish):
 Black Painted, 3LPE Coated, Bare,
 Galvanised, Epoxy Coating

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 Website: www.shreerajsteels.com

Contact: +91 7069672923 | +91 7400410762



SHREE RAJ STEELS

Long Radius (1.5D) Elbows

(Size):

(Seamless) 1/2"-24" (DN15-DN600)

(Welded)- ERW, 2-JOINT, WX=1- 1/2"-60"
(DN15-DN1500)

(Degree): 45 / 90 / 180 or customized degree

(Bending Radius): 1D, 1.5D, 3D, 5D, 6D or
customised upto 25D

(Thickness): SCH5S-XXS

(Standard):

ASME/ANSI B16.9, B16.11, B16.25, B16.28, MSS-SP-43 EN
10253 DIN 2605, 2609, 2615, 2616, 2617 JIS B2311,
B2312, B2313

(Grade):

- Carbon Steel- ASTM A234 WPB/C
- Alloy Steel- ASTM, A234, WP1, 2, 5, 9, 11, 22, 91,
ASTM A420 Gr.6, ASTM A860 WPHY 42, 46, 52,
60, 65, 70
- Stainless Steel, Duplex, Super Duplex- WP
304/L/H, 316/L/Ti/H, 317L, 310/S, 347/H, 321/H,
904/L, S32750/SAF2507, 532205/SAF2205,
531803, 532760, SMO254
- Monel, Inconel, Hastelloy

(Surface Finish):

Black Painted, 3LPE Coated, Bare, Galvanised,
Epoxy Coating, Industrial etc.

*Weights are approximate

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Website: www.shreerajsteels.com

Contact: +91 7069672923 | +91 7400410762

NORMINAL DIAMETER		Outside Diameter	CENTER TO END		CENTER TO CENTER	90D L/R ELBOW APPROX WEIGHT					
DN	NPS	OD	B	A	O	SCH5S	SCH 10S	SCH 20S/ LG	SCH40S/ STD	SCH80S/ XS	SCH80
15	1/2	18 21.3	16	38	76	0.04 0.06	0.05 0.06	0.06 0.07	0.06 0.08	0.08 0.10	0.08 0.10
20	3/4	25 26.7	19	38	76	0.06 0.06	0.07 0.08	0.09 0.09	0.09 0.10	0.12 0.13	0.12 0.13
25	1	32 33.4	22	38	76	0.07 0.08	0.12 0.13	0.14 0.14	0.14 0.15	0.19 0.19	0.19 0.19
32	1 1/4	38 42.2	25	48	96	0.11 0.13	0.18 0.20	0.21 0.23	0.23 0.26	0.30 0.34	0.30 0.34
40	1 1/2	45 48.3	29	57	114	0.16 0.17	0.26 0.28	0.30 0.32	0.34 0.37	0.45 0.49	0.45 0.49
50	2	57 60.3	35	76	152	0.27 0.29	0.45 0.47	0.57 0.61	0.62 0.65	0.85 0.90	0.85 0.90
65	2 1/2	76 73	44	95	190	0.58 0.55	0.82 0.79	0.97 0.93	1.35 1.30	1.79 1.71	1.79 1.71
80	3	89	51	114	228	0.82	1.17	1.51	2.04	2.76	2.76
90	3 1/2	101.6	57	133	266	1.09	1.56	2.03	2.85	3.92	3.92
100	4	108 114	64	152	304	1.32 1.40	1.90 2.01	2.47 2.61	3.64 3.85	5.05 5.35	5.05 5.35
125	5	133 141.3 139.7	79	190	380	2.67 2.84 2.81	3.27 3.47 3.43	4.74 5.05 4.99	6.14 6.54 6.46	8.72 9.31 9.19	8.72 9.31 9.19
150	6	168.3 159 165	95	229	458	4.10 3.86 4.01	5.01 4.72 4.91	7.29 6.88 7.14	10.24 9.64 10.03	15.41 14.50 15.09	15.41 14.50 15.09
200	8	219 216	127	305	610	7.12 7.03	9.63 9.49	15.94 15.71	20.51 20.22	31.17 30.71	31.17 30.71
250	10	273 267.4	159	381	762	13.62 13.34	16.74 16.39	24.97 24.44	36.33 35.56	49.12 48.06	57.83 56.57
300	12	325 323.9 318	190	457	914	22.66 22.58 22.16	26.10 26.01 25.53	35.79 35.66 35.00	53.58 53.40 5239	70.69 70.44 49.11	95.81 95.46 93.63

Long Radius (1.5D) Elbows

(Size):

(Seamless) 1/2"-24" (DN15-DN600)

(Welded)- ERW, 2-JOINT, WX=1- 1/2"-60"
(DN15-DN1500)

(Degree): 45 / 90 / 180 or customized degree

(Bending Radius): 1D, 1.5D, 3D, 5D, 6D or
customised upto 25D

(Thickness): SCH5S-XXS

(Standard):

ASME/ANSI B16.9, B16.11, B16.25, B16.28, MSS-SP-43 EN
10253 DIN 2605, 2609, 2615, 2616, 2617 JIS B2311,
B2312, B2313

(Grade):

- Carbon Steel- ASTM A234 WPB/C
- Alloy Steel- ASTM, A234, WP1, 2, 5, 9, 11, 22, 91,
ASTM A420 Gr.6, ASTM A860 WPHY 42, 46, 52,
60, 65, 70
- Stainless Steel, Duplex, Super Duplex- WP
304/L/H, 316/L/Ti/H, 317L, 310/S, 347/H, 321/H,
904/L, S32750/SAF2507, 532205/SAF2205,
531803, 532760, SMO254
- Monel, Inconel, Hastelloy

(Surface Finish):

Black Painted, 3LPE Coated, Bare, Galvanised,
Epoxy Coating, Industrial etc.

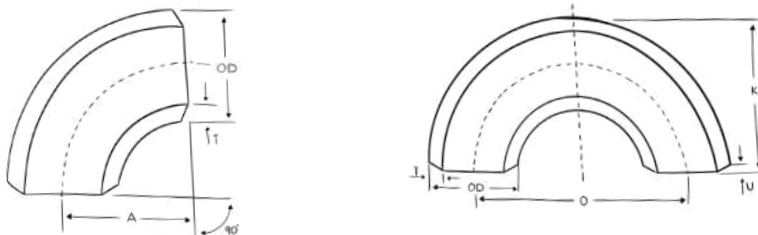
*Weights are approximate

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Contact: +91 7069672923 | +91 7400410762

NORMINAL DIAMETER		Outside Diameter	CENTER TO END		CENTER TO CENTER	90D L/R ELBOW APPROX WEIGHT					
350	14	377 355.6	222	533	1066	30.71 28.95	36.98 34.86	61.36 57.80	72.80 68.56	96.17 90.52	141.75 133.27
400	16	426 406.4	254	610	1220	42.05 40.09	47.90 45.67	79.55 75.82	94.42 89.98	124.87 118.95	206.35 196.35
450	18	478 457.2	286	686	1372	53.11 50.78	60.52 57.86	100.60 96.14	199.44 114.14	158.10 151.03	298.56 276.29
500	20	529 508	318	762	1524	74.47 71.48	86.18 82.72	123.86 118.87	147.12 141.17	194.86 186.94	391.34 375.00
550	22	559 538	343	838	1676	86.58 83.11	100.21 96.14	144.06 139.58	171.14 166.14	226.75 221.75	495.44 479.44
600	24	630 610	381	914	1828	123.32 119.37	141.21 136.64	177.37 171.67	210.78 203.98	279.45 270.40	661.1 —
650	26	660 639	406	991	1982	—	—	201.59 196.59	239.58 234.58	317.72 312.72	—
700	28	720 711	438	1067	2134	—	—	237.03 234.03	281.75 278.18	373.80 369.04	—
750	30	762 741	470	1143	2286	213.90 209.90	266.23 262.23	268.89 264.89	319.66 315.66	424.2 419.2	—
800	32	820 813	502	1219	2438	—	—	308.83 306.16	367.20 364.02	487.42 483.20	—
850	34	864 848	533	1295	2590	—	—	345.86 341.86	411.27 407.27	546.04 541.04	—
900	36	920 914	565	1372	2744	2744	—	390.39 387.83	464.28 461.22	616.56 612.48	—
950	38	965 949	600	1448	2896	—	—	432.25 428.25	514.21 510.21	682.98 678.98	—
1000	40	1016 1020	632	1524	3048	—	—	479.29 481.19	570.09 572.36	757.33 760.35	—
1050	42	1067 1071	660	1600	3200	—	—	528.65 532.65	628.85 632.85	835.51 839.51	—
1100	44	1118 1120	695	1676	3352	—	—	580.43 581.48	690.49 691.73	917.53 917.53	—
1150	46	1168 1172	727	1753	3506	—	—	634.45 638.45	754.79 758.79	1003.1 1007.1	—
1200	48	1220 1224	759	1829	3658	—	—	691.63 695.63	822.86 826.86	1093.7 1097.7	—



SHREE RAJ STEELS

Short Radius (1D) Elbows

(Size):

(Seamless) 1/2"-24" (DN15-DN600)

(Welded)- ERW, 2-JOINT, WX=1- 1/2"-60"
(DN15-DN1500)

(Degree): 45 / 90 / 180 or customized degree

(Bending Radius): 1D, 1.5D, 3D, 5D, 6D or
customised upto 25D

(Thickness): SCH5S-XXS

(Standard):

ASME/ANSI B16.9, B16.11, B16.25, B16.28, MSS-SP-43 EN
10253 DIN 2605, 2609, 2615, 2616, 2617 JIS B2311,
B2312, B2313

(Grade):

- Carbon Steel- ASTM A234 WPB/C
- Alloy Steel- ASTM, A234, WP1, 2, 5, 9, 11, 22, 91,
ASTM A420 Gr.6, ASTM A860 WPHY 42, 46, 52,
60, 65, 70
- Stainless Steel, Duplex, Super Duplex- WP
304/L/H, 316/L/Ti/H, 317L, 310/S, 347/H, 321/H,
904/L, S32750/SAF2507, 532205/SAF2205,
531803, 532760, SMO254
- Monel, Inconel, Hastelloy

(Surface Finish):

Black Painted, 3LPE Coated, Bare, Galvanised,
Epoxy Coating, Industrial etc.

*Weights are approximate

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NORMINAL DIAMETER		Outside Diameter	CENTER TO END	CENTER TO CENTER	90D S/R ELBOW APPROX WEIGHT					
DN	NPS	OD	A	O	SCH5S	SCH 10S	SCH 20S/ LG	SCH40S/ STD	SCH80S/ XS	SCH80
25	1	32	25	50	0.05	0.08	0.09	0.09	0.12	0.12
		33.4			0.05	0.08	0.09	0.10	0.12	0.13
32	1¼	38	32	64	0.07	0.12	0.14	0.15	0.20	0.20
		42.2			0.08	0.14	0.16	0.17	0.23	0.23
40	1½	45	38	76	0.11	0.17	0.20	0.23	0.30	0.30
		48.3			0.11	0.19	0.21	0.24	0.33	0.33
50	2	57	51	102	0.18	0.30	0.38	0.41	0.57	0.57
		60.3			0.19	0.32	0.41	0.44	0.60	0.60
65	2½	76	64	128	0.39	0.56	0.65	0.91	1.21	1.21
		73			0.37	0.53	0.62	0.87	1.15	1.15
80	3	89	76	152	0.54	0.78	1.01	1.36	1.84	1.84
90	3½	101.6	89	178	0.73	1.04	1.36	1.91	2.62	2.62
100	4	108	102	204	0.89	1.27	1.65	2.44	3.39	3.39
		114			0.94	1.35	1.75	2.59	3.59	3.59
125	5	133	127	254	1.79	2.18	3.17	4.10	5.83	5.83
		141.3			1.90	2.32	3.38	4.37	6.22	6.22
		139.7			1.88	2.30	3.34	4.32	6.14	6.14
150	6	168.3	152	304	2.72	3.32	4.84	6.79	10.23	10.23
		159			2.57	3.14	4.56	6.40	9.63	9.63
		165			2.66	3.26	4.74	6.65	10.02	10.02
200	8	219	203	406	4.74	6.41	10.61	13.65	20.74	20.74
		216			4.68	6.32	10.46	13.46	20.44	20.44
250	10	273	254	508	9.08	11.16	16.64	24.22	32.75	38.55
		267.4			8.89	10.92	16.29	23.70	32.04	37.72
300	12	325	305	610	15.12	17.42	23.88	35.76	47.18	63.94
		323.9			15.07	17.36	23.80	35.64	47.01	93.71
		318			14.79	17.04	23.36	34.97	46.12	62.49

NORMINAL DIAMETER		Outside Diameter	CENTER TO END	CENTER TO CENTER	90D S/R ELBOW APPROX WEIGHT					
DN	NPS	OD	A	O	SCH5S	SCH 10S	SCH 20S/ LG	SCH40S/ STD	SCH80S/ XS	SCH80
350	14	377 355.6	356	712	20.51 19.33	24.70 23.28	40.99 38.61	48.62 45.79	64.24 60.46	89.01 94.67
400	16	426 406.4	406	812	27.98 26.68	31.88 30.40	52.95 50.47	62.84 59.89	83.11 79.17	137.34 130.69
450	18	478 457.2	457	914	35.38 33.38	40.32 38.54	67.01 64.05	79.57 76.04	105.32 100.61	192.90 184.06
500	20	529 508	508	1016	49.64 47.66	57.45 55.15	82.58 79.25	98.08 94.12	129.91 124.62	260.90 250.00
550	22	559	559	1118	57.75	66.85	93.1	114.16	151.26	330.49
600	24	630 610	610	1220	82.30 79.67	94.21 91.19	118.38 114.57	140.67 136.14	186.46 180.46	441.22 —
650	26	660	660	1320	—	—	134.26	159.56	211.6	—
700	28	720 711	711	1422	—	—	157.94 155.95	187.75 175.37	249.08 245.91	—
750	30	762	762	1524	142.6	177.49	179.26	213.11	282.8	—
800	32	820 813	813	1626	—	—	205.97 204.19	244.90 242.78	325.08 322.26	—
850	34	864	864	1728	—	—	230.75	274.39	364.3	—
900	36	920 914	914	1828	—	—	260.07 258.36	309.29 307.25	410.74 408.02	—
950	38	965	965	1930	—	—	288.13	342.69	455.17	—
1000	40	1016 1020	1016	2032	—	—	319.53 320.80	380.06 381.57	506.90 504.89	—
1050	42	1067	1067	2134	—	—	352.55	419.36	557.18	—
1100	44	1118 1120	1118	2236	—	—	387.19 387.88	460.60 461.43	612.05 613.16	—
1150	46	1168	1168	2336	—	—	422.72	502.9	668.35	—
1200	48	1220	1220	2440	—	—	461.34	548.87	729.53	—

SHREE RAJ STEELS

Short Radius (1D) Elbows

(Size):

(Seamless) 1/2"-24" (DN15-DN600)

(Welded)- ERW, 2-JOINT, WX=1- 1/2"-60"
(DN15-DN1500)

(Degree): 45 / 90 / 180 or customized degree

(Bending Radius): 1D, 1.5D, 3D, 5D, 6D or
customised upto 25D

(Thickness): SCH5S-XXS

(Standard):

ASME/ANSI B16.9, B16.11, B16.25, B16.28, MSS-SP-43 EN
10253 DIN 2605, 2609, 2615, 2616, 2617 JIS B2311,
B2312, B2313

(Grade):

- Carbon Steel- ASTM A234 WPB/C
- Alloy Steel- ASTM, A234, WP1, 2, 5, 9, 11, 22, 91,
ASTM A420 Gr.6, ASTM A860 WPHY 42, 46, 52,
60, 65, 70
- Stainless Steel, Duplex, Super Duplex- WP
304/L/H, 316/L/Ti/H, 317L, 310/S, 347/H, 321/H,
904/L, S32750/SAF2507, 532205/SAF2205,
531803, 532760, SMO254
- Monel, Inconel, Hastelloy

(Surface Finish):

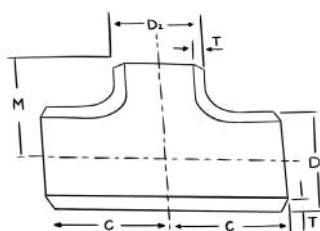
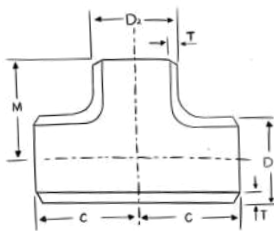
Black Painted, 3LPE Coated, Bare, Galvanised,
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*Weights are approximate

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SHREE RAJ STEELS

Tees - Unequal & Equal

(Size):

(Seamless) 1/2"-24" (DN15-DN600)

(Welded)- ERW, 2-JOINT, WX=1- 1/2"-60"
(DN15-DN1500)

(Thickness): SCH5S-XXS

(Standard):

ASME/ANSI B16.9, B16.11, B16.25, B16.28, MSS-SP-43
EN 10253

DIN 2605, 2609, 2615, 2616, 2617

JIS B2311, B2312, B2313

(Grade):

Carbon Steel- ASTM A234 WPB/C

Alloy Steel- ASTM, A234, WP1, 2, 5, 9, 11, 22, 91, ASTM
A420 Gr.6, ASTM A860 WPHY

42, 46, 52, 60, 65, 70

Stainless Steel, Duplex, Super Duplex- WP 304/L/H,
316/L/Ti/H, 317L, 310/S,

347/H, 321/H, 904/L, S32750/SAF2507,
532205/SAF2205, 531803, 532760,
SMO254

Monel, Inconel, Hastelloy

(Surface Finish):

Black Painted, 3LPE Coated, Bare, Galvanised,
Epoxy Coating, Industrial etc.

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NORMINAL DIAMETER		OUTSIDE DIAMETER	CENTER TO END		APPROX WEIGHT					
DN	NPS	D1 X D2	C	M	SCH5S	SCH 10S	SCH20S/STD	SCH40S/XS	SCH80S/XS	SCH 80
20 x 20	3/4 X 3/4	25X25 26.7 X 26.7	29	29	0.07 0.08	0.10 0.11	0.13 0.15	0.16 0.18	0.16 0.18	0.16 0.18
20 x 15	3/4 x 1/2	25X18 26.7 x 21.3	29	29	0.06 0.07	0.09 0.10	0.12 0.13	0.12 0.13	0.15 0.16	0.15 0.16
25 x 25	1 x 1	32 x 32 33.4 x 33.4	38	38	0.11 0.12	0.19 0.20	0.23 0.25	0.23 0.25	0.30 0.32	0.30 0.32
25 x 20	1 x 3/4	32 x 25 33.4 x 26.7	38	38	0.10 0.11	0.18 0.19	0.22 0.24	0.22 0.24	0.28 0.31	0.28 0.31
25 x 15	1 x 1/2	32 x 18 33.4 x 21.3	38	38	0.09 0.10	0.17 0.18	0.21 0.23	0.21 0.23	0.27 0.30	0.27 0.30
32 x 32	1.1/4 x 1.1/4	38 x 38 42.2 x 42.2	48	48	0.19 0.20	0.36 0.39	0.42 0.52	0.42 0.52	0.63 0.73	0.63 0.73
32 x 25	1.1/4 x 1	38 x 32 42.2 x 33.4	48	48	0.18 0.19	0.33 0.35	0.40 0.42	0.40 0.42	0.58 0.68	0.58 0.68
32 x 20	1.1/4 x 3/4	38 x 25 42.2 x 26.7	48	48	0.17 0.18	0.31 0.32	0.38 0.40	0.38 0.40	0.55 0.65	0.55 0.65
32 x 15	1.1/4 x 1/2	38 x 18 42.2 x 21.3	48	48	0.16 0.17	0.30 0.31	0.36 0.38	0.36 0.38	0.52 0.62	0.52 0.62
40 x 40	1.1/2 x 1.1/2	45 x 45 48.3 x 48.3	57	57	0.35 0.45	0.59 0.69	0.78 0.88	0.78 0.88	1.08 1.18	1.08 1.18
40 x 32	1.1/2 x 1.1/4	45 x 38 48.3 x 42.2	57	57	0.32 0.42	0.54 0.65	0.72 0.82	0.72 0.82	0.99 1.09	0.99 1.09
40 x 25	1.1/2 x 1	45 x 32 48.3 x 33.4	57	57	0.27 0.37	0.45 0.65	0.60 0.80	0.60 0.80	0.83 1.08	0.83 1.08
40 x 20	1.1/2 x 3/4	45 x 25 48.3 x 26.7	57	57	0.26 0.36	0.44 0.64	0.58 0.68	0.58 0.68	0.80 1.00	0.80 1.00
40 x 15	1.1/2 x 1/2	45 x 18 48.3 x 21.3	57	57	0.25 0.35	0.42 0.62	0.56 0.66	0.56 0.66	0.78 0.78	0.78 0.78
50 x 50	2 x 2	57 x 57 60.3 x 60.3	64	64	0.49 0.50	1.03 1.05	1.15 1.18	1.15 1.18	1.65 1.67	1.65 1.67
50 x 40	2 x 1.1/2	57 x 45 60.3 x 48.3	64	60	0.44 0.45	0.93 0.95	1.04 1.06	1.04 1.06	1.48 1.50	1.48 1.50
50 x 32	2 x 1.1/4	57 x 38 60.3 x 42.2	64	57	0.40 0.43	0.81 0.89	0.96 1.00	0.96 1.00	1.37 1.42	1.37 1.42
50 x 25	2 x 1	57 x 32 60.3 x 33.4	64	51	0.39 0.40	0.72 0.84	0.92 0.94	0.92 0.94	1.31 1.34	1.31 1.34
50 x 20	2 x 3/4	57 x 25 60.3 x 26.7	64	44	0.37 0.38	0.70 0.80	0.87 0.90	0.87 0.90	1.24 1.27	1.24 1.27

NORMINAL DIAMETER		OUTSIDE DIAMETER	CENTER TO END		APPROX WEIGHT					
DN	NPS	D1 X D2	C	M	SCH5S	SCH 10S	SCH20S/STD	SCH40S/XS	SCH80S/XS	SCH 80
50 x 20	2 x 3/4	57 x 25 60.3 x 26.7	64	44	0.37 0.38	0.70 0.80	0.87 0.90	0.87 0.90	1.24 1.27	1.24 1.27
65 x 65	2.1/2 x 2.1/2	76 x 76 73.0 x 73.0	76	76	0.87 0.86	1.21 1.25	2.10 2.12	2.10 2.12	2.80 2.88	2.80 2.88
65 x 50	2.1/2 x 2	76 x 57 73.0 x 60.3	76	70	0.82 0.81	1.17 1.16	2.00 1.98	2.00 1.98	2.70 2.65	2.70 2.65
65 x 40	2.1/2 x 1.1/2	76 x 45 73.0 x 48.3	76	67	0.77 0.76	1.11 1.10	1.89 1.88	1.89 1.88	2.56 2.55	2.56 2.55
65 x 32	2.1/2 x 1.1/4	76 x 38 73.0 x 42.2	76	64	0.75 0.74	1.10 1.08	1.80 1.89	1.80 1.89	2.50 2.25	2.50 2.25
65 x 25	2.1/2 x 1	76 x 32 73.0 x 33.4	76	57	0.76 0.70	1.10 1.07	1.86 1.81	1.86 1.81	2.53 2.08	2.53 2.08
80 x 80	3 x 3	89 x 89	86	86	1.16	1.68	3.02	3.02	4.19	4.19
80 x 65	3 x 2.1/2	89 x 76 88.9 x 73.0	86	83	1.11 1.10	1.62 1.60	2.89 2.87	2.89 2.87	4.02 3.98	4.02 3.98
80 x 50	3 x 2	88.9 x 57 88.9 x 60.3	86	76	1.06 107	1.53 1.55	2.76 2.79	2.76 2.79	3.81 3.85	3.81 3.85
80 x 40	3 x 1.1/2	88.9 x 45 88.9 x 48.3	86	73	1.01 1.03	1.49 1.50	2.67 2.69	2.67 2.69	3.70 3.73	3.70 3.73
80 x 32	3 x 1.1/4	89 x 38 88.9 x 42.2	86	70	1.00 1.00	1.48 1.45	2.65 2.60	2.65 2.60	3.68 3.60	3.68 3.60
90 x 90	3.1/2 x 3.1/2	101.6 x 101.6	95	95	1.33	1.92	3.61	3.61	5.08	5.08
90 x 80	3.1/2 x 3	101.6 x 88.9	95	92	1.26	1.82	3.43	3.43	4.83	4.83
90 x 65	3.1/2 x 2.1/2	101.6 x 73.0	95	89	1.22	1.76	3.32	3.32	4.67	4.67
90 x 50	3.1/2 x 2	101.6 x 60.3	95	83	1.2	1.73	3.25	3.25	4.57	4.57
90 x 40	3.1/2 x 1.1/2	101.6 x 48.3	95	79	1.17	1.7	3.21	3.21	4.51	4.51
100 x 100	4 x 4	108 x 108 114.3 x 114.3	105	105	1.66 1.75	2.41 2.54	4.75 5.01	4.75 5.01	6.75 7.12	6.75 7.12
100 x 90	4 x 3.1/2	114.3 x 101.6	105	102	1.7	2.46	4.85	4.85	6.89	6.89
100 x 80	4 x 3	108 x 89 114.3 x 88.9	105	98	1.55 1.61	2.24 2.33	4.42 4.60	4.42 4.60	6.27 6.52	6.27 6.52
100 x 65	4 x 2.1/2	108 x 76 114.3 x 73.0	105	95	1.53 1.60	2.21 2.31	4.36 4.56	4.36 4.56	6.50 6.50	6.50 6.50
100 x 50	4 x 2	108 x 57 114.3 x 60.3	105	89	1.51 157	2.19 2.29	4.32 4.41	4.32 4.41	6.13 6.12	6.12 6.13
100 x 40	4 x 1.1/2	108 x 45 114.3 x 48.3	105	86	1.50 1.55	2.09 2.24	4.00 4.22	4.22 4.00	6.03 6.02	6.02 6.03
125 x 125	5 x 5	133 x 133 141.3 x 141.3	124	124	3.18 3.37	3.91 4.14	7.53 7.98	7.53 7.98	10.9 11.6	11.6 10.9
125 x 100	5 x 4	133 x 108 141.3 x 114.3	124	117	3.03 3.15	3.73 3.90	7.20 7.52	7.20 7.52	10.4 10.8	10.4 10.8

SHREE RAJ STEELS

Tees - Unequal & Equal

(Size):

(Seamless) 1/2"-24" (DN15-DN600)

(Welded)- ERW, 2-JOINT, WX=1- 1/2"-60"

(DN15-DN1500)

(Thickness): SCH5S-XXS

(Standard):

ASME/ANSI B16.9, B16.11, B16.25, B16.28, MSS-SP-43
EN 10253

DIN 2605, 2609, 2615, 2616, 2617

JIS B2311, B2312, B2313

(Grade):

Carbon Steel- ASTM A234 WPB/C

Alloy Steel- ASTM, A234, WP1, 2, 5, 9, 11, 22, 91, ASTM
A420 Gr.6, ASTM A860 WPHY

42, 46, 52, 60, 65, 70

Stainless Steel, Duplex, Super Duplex- WP 304/L/H,
316/L/Ti/H, 317L, 310/S,

347/H, 321/H, 904/L, S32750/SAF2507,

532205/SAF2205, 531803, 532760,

SMO254

Monel, Inconel, Hastelloy

(Surface Finish):

Black Painted, 3LPE Coated, Bare, Galvanised,
Epoxy Coating, Industrial etc.

*Weights are approximate

Email Address: srsteelbby@gmail.com

Website: www.shreerajsteels.com

Contact: +91 7069672923 | +91 7400410762

Tees - Unequal & Equal

(Size):
(Seamless) 1/2"-24" (DN15-DN600)
(Welded)- ERW, 2-JOINT, WX=1- 1/2"-60"
(DN15-DN1500)

(Thickness): SCH5S-XXS

(Standard):
ASME/ANSI B16.9, B16.11, B16.25, B16.28, MSS-SP-43
EN 10253
DIN 2605, 2609, 2615, 2616, 2617
JIS B2311, B2312, B2313

(Grade):
Carbon Steel- ASTM A234 WPB/C
Alloy Steel- ASTM, A234, WP1, 2, 5, 9, 11, 22, 91, ASTM
A420 Gr.6, ASTM A860 WPHY
42, 46, 52, 60, 65, 70
Stainless Steel, Duplex, Super Duplex- WP 304/L/H,
316/L/Ti/H, 317L, 310/S,
347/H, 321/H, 904/L, S32750/SAF2507,
532205/SAF2205, 531803, 532760,
SMO254
Monel, Inconel, Hastelloy

(Surface Finish):
Black Painted, 3LPE Coated, Bare, Galvanised,
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NORMINAL DIAMETER		OUTSIDE DIAMETER	CENTER TO END		APPROX WEIGHT					
DN	NPS	D1 X D2	C	M	SCH5S	SCH 10S	SCH20S/STD	SCH40S/XS	SCH80S/XS	SCH 80
125 x 90	5 x 3.1/2	141.3 x 101.6	124	114	3.09	3.83	7.39	7.39	10.6	10.6
125 x 80	5 x 3	133 x 89 141.3 x 88.9	124	111	2.90 3.02	3.59 3.74	6.92 7.21	6.92 7.21	10.0 10.4	10.0 10.4
125 x 65	5 x 2.1/2	133 x 76 141.3 x 73.0	124	108	2.85 3.00	3.59 3.73	6.92 7.20	6.92 7.20	10.0 10.4	10.0 10.4
125 x 50	5 x 2	133 x 57 141.3 x 60.3	124	105	2.80 3.92	3.58 3.73	6.92 7.20	6.92 7.20	10.0 10.4	10.0 10.4
150 x 150	6 x 6	159 x 159 168.3 x 168.3	143	143	4.09 4.32	5.03 5.31	10.5 11.1	10.5 11.1	16.2 17.1	16.2 17.1
150 x 125	6 x 5	159 x 133 168.3 x 141.3	143	137	3.84 4.13	4.73 5.08	9.88 10.6	9.88 10.6	15.2 16.3	15.2 16.3
150 x 100	6 x 4	159 x 108 168.3 x 114.3	143	130	3.76 3.95	4.64 4.87	9.70 10.2	9.70 10.2	14.9 15.6	14.9 15.6
150 x 90	6 x 3.1/2	168.3 x 101.6	143	127	3.91	4.82	10.1	10.1	15.5	15.5
150 x 80	6 x 3	159 x 89 168.3 x 88.9	143	124	3.72 3.93	4.56 4.82	9.56 10.0	9.56 10.0	14.7 15.3	14.7 15.3
150 x 65	6 x 2.1/2	159 x 76 168.3 x 73.0	143	121	3.70 3.81	4.51 4.72	9.51 10.0	9.51 10.1	14.6 15.2	14.6 15.2
200 x 200	8 x 8	219 x 219	178	178	7.72	10.4	22.8	22.8	35.4	35.4
200 x 150	8 x 6	219 x 159 219.1 x 168.3	178	168	6.74 7.17	9.20 9.74	19.9 21.1	19.9 21.1	30.9 32.8	30.9 32.8
200 x 125	8 x 5	219 x 133 219.1 x 141.3	178	162	6.61 7.03	8.98 9.55	19.5 20.7	19.5 20.7	30.2 30.2	30.2 30.2
200 x 100	8 x 4	219 x 108 219.1 x 114.3	178	156	6.43 6.84	8.73 8.39	19.0 19.9	20.5 20.2	29.4 31.3	29.4 31.3
200 x 90	8 x 3.1/2	219.1 x 101.6	178	152	6.84	9.18	19.8	19.8	31.1	31.1
250 x 250	10 x 10	273 x 273	216	216	14.6	18.04	40	40	52.8	65.12
250 x 200	10 x 8	273 x 219	216	203	13.3	16.4	36.4	36.4	45.8	59.2
250 x 150	10 x 6	273 x 159 273.1 x 168.3	216	194	11.4 12.1	15.0 15.0	31.4 33.4	31.4 33.4	42.7 45.4	50.7 54.0
250 x 125	10 x 5	273 x 133 273.1 x 141.3	216	191	11.2 11.9	14.6 14.6	30.7 32.7	30.7 30.7	41.8 44.5	49.7 52.9
250 x 100	10 x 4	273 x 108 273.1 x 114.3	216	184	11.0 11.7	14.4 14.4	30.3 32.2	30.3 32.2	41.2 42.9	49.0 52.1
300 x 300	12 x 12	325 x 325 323.9 x 323.9	254	254	21.5 21.5	24.8 24.8	51.8 51.8	51.1 56.0	69.0 69.0	95.0 95.0
300 x 250	12 x 10	325 x 273 323.9 x 273.1	254	241	20.4 20.3	23.6 23.4	49.2 49.1	53.3 53.1	65.6 65.2	90.3 90.2

NORMINAL DIAMETER		OUTSIDE DIAMETER	CENTER TO END		APPROX WEIGHT					
DN	NPS	D1 X D2	C	M	SCH5S	SCH 10S	SCH20S/STD	SCH40S/XS	SCH80S/XS	SCH 80
300x200	12x8	325x219 323.9x219.1	254	229	20.2 20.0	23.3 23.1	48.4 48.2	52.4 52.2	64.4 64.2	88.6 88.4
300x150	12x6	325x159 323.9x168.3	254	219	18.4 19.5	22.7 22.5	44.3 47.1	47.9 51.0	59.0 62.7	81.2 86.4
300x125	12x5	325x133 323.9x141.3	254	219	18.0 19.1	20.8 22.1	43.6 46.3	47.1 50.2	57.8 61.5	79.6 84.6
350x350	14x14	377x377 355.6 x 355.6	279	279	27.4 25.7	33.1 31.1	68.1 62.0	77.2 72.5	88.0 82.7	132 124
350x325	14x12	377x325 355.6 x 323.9	279	279	25.8 24.2	31.1 29.2	62.1 58.3	72.5 68.2	82.7 77.7	124 116
350x300	14x10	377x273 355.6 x 273.1	279	257	25.1 23.7	30.3 28.6	60.5 57.0	70.8 66.7	80.7 76.0	121 114
350x250	14x8	377 x 219 355.6 x 219.1	279	248	24.6 23.1	27.9 27.9	59.2 55.7	69.2 65.2	78.0 74.2	118 111
350x200	14x6	377x159 355.6 x 168.3	279	238	24.0 22.3	29.0 27.1	57.9 54.2	67.8 64.8	77.1 77.8	115 110
400x400	16x16	426x426 406.4 x 406.4	305	305	33.1 31.4	38.0 36.1	75.9 72.3	101 96.4	101 96.1	170 162
400x350	16x14	426 x 377 406.4 x 355.6	305	305	31.0 30.4	36.8 34.9	73.6 70.1	98.1 93.4	97.8 92.9	179 162
400x300	16x12	426 x 325 406.4 x 323.9	305	295	31.0 28.2	35.6 34.4	71.4 69.1	95.2 90.8	94.7 89.2	173 168
400x250	16x10	426 x 273 406.4 x 273.1	305	283	30.2 28.7	34.7 33.0	69.9 66.6	93.1 88.7	92.5 87.8	169 161
400x200	16x8	426 x 219 406.4 x 219.1	305	273	26.5 28.1	33.9 32.3	68.4 65.1	91.1 86.8	90.2 86.0	165 157
400x150	16x6	426 x 159 406.4 x 168.3	305	267	26.2 27.7	33.5 31.8	97.6 64.4	217 206	89.2 84.8	90.1 85.8
450x450	18x18	478 x 478 457 x 457	343	343	41.9 39.8	47.8 45.5	95.3 90.7	349 332	127 120	142 136
450x400	18x16	478 x 426 457 x 406.4	343	343	41.0 39.0	46.8 44.5	95.3 88.9	342 325	144 118	140 133
450x350	18x14	478 x 377 406.4 x 355.6	343	330	40.4 38.3	46.1 43.8	91.9 87.3	336 320	142 135	137 130
450x300	18x12	478 x 325 406.4 x 323.9	343	321	39.8 37.3	45.4 42.6	90.6 85.0	331 216	140 131	135 127
450x250	18x10	478 x 273 457x 273.1	343	308	39.3 37.3	44.9 42.6	89.6 85.0	228 216	138 131	134 127
450x200	18x8	478 x 219 457 x 219.1	343	298	38.8 36.9	44.3 42.1	89.1 84.7	225 213	137 130	132 126

SHREE RAJ STEELS

Tees - Unequal & Equal

(Size):

(Seamless) 1/2"-24" (DN15-DN600)

(Welded)- ERW, 2-JOINT, WX=1- 1/2"-60"
(DN15-DN1500)

(Thickness): SCH5S-XXS

(Standard):

ASME/ANSI B16.9, B16.11, B16.25, B16.28, MSS-SP-43
EN 10253

DIN 2605, 2609, 2615, 2616, 2617

JIS B2311, B2312, B2313

(Grade):

Carbon Steel- ASTM A234 WPB/C

Alloy Steel- ASTM, A234, WP1, 2, 5, 9, 11, 22, 91, ASTM
A420 Gr.6, ASTM A860 WPHY

42, 46, 52, 60, 65, 70

Stainless Steel, Duplex, Super Duplex- WP 304/L/H,
316/L/Ti/H, 317L, 310/S,

347/H, 321/H, 904/L, S32750/SAF2507,

532205/SAF2205, 531803, 532760,
SMO254

Monel, Inconel, Hastelloy

(Surface Finish):

Black Painted, 3LPE Coated, Bare, Galvanised,
Epoxy Coating, Industrial etc.

*Weights are approximate

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NORMINAL DIAMETER		OUTSIDE DIAMETER	CENTER TO END		APPROX WEIGHT					
DN	NPS	D1 X D2	C	M	SCH5S	SCH 10S	SCH20S/ STD	SCH40S/ XS	SCH80S/ XS	SCH 80
500 x 500	20 x 20	529 x 529 508 x 508	381	381	58.9 56.3	68.2 65.3	117 112	469 449	156 149	186 178
500 x 450	20 x 18	529 x 478 508 x 457	381	368	57.7 55.8	67.1 64.2	115 110	462 441	154 147	183 175
500 x 400	20 x 16	529 x 426 508 x 406.4	381	356	57.0 54.7	66.0 63.4	113 109	454 436	151 145	180 173
500 x 350	20 x 14	529 x 377 508 x 355.6	381	356	56.0 53.7	64.9 62.3	111 107	446 428	148 142	177 170
500 x 300	20 x 12	529 x 325 508 x 323.9	381	346	55.0 52.8	63.8 61.2	109 105	438 421	146 140	174 167
500 x 250	20 x 10	529 x 273 508 x 273.1	381	333	54.4 52.2	63.0 60.5	108 104	433 416	144 138	172 165
500 x 200	20 x 8	529 x 219 508 x 219.1	381	324	53.7 51.5	62.3 59.7	107 102	428 410	142 137	170 163
550 x 550	22 x 22	559 x 559	419	419	73.5	85.2	146	635	195	—
550 x 500	22 x 20	559 x 508	419	406	70.7	81.9	141	610	187	—
550 x 450	22 x 18	559 x 457	419	394	67.7	78.5	135	584	180	—
550 x 400	22 x 16	559 x 406.4	419	381	66.2	76.7	132	571	179	—
550 x 350	22 x 14	559 x 355.6	419	381	65.5	75.9	130	565	174	—
550 x 300	22 x 12	559 x 323.9	419	371	64	74.2	127	552	170	—
550 x 250	22 x 10	559 x 273.1	419	359	62.5	72.5	124	540	166	—
600 x 600	24 x 24	630 x 630 610 x 610	432	432	93.9	110 107	165 161	797 779	220 215	303 296
600 x 550	24 x 22	610 x 559	432	432	90.1	103	155	748	206	—
600 x 500	24 x 20	630 x 529 630 x 508	432	432	92.2 86.4	105 99.4	158 148	765 701	211 198	291 272
600 x 450	24 x 18	630 x 478 610 x 457	432	419	88.4 84.5	101 96.9	152 145	734 694	202 193	278 266
600 x 400	24 x 16	630 x 426 610 x 406.4	432	406	86.4 83.2	99.1 95.7	148 143	718 690	198 191	272 263
600 x 350	24 x 14	630 x 377 610 x 355.6	432	406	85.5 81.7	98.0 93.5	147 140	710 678	195 187	269 257
600 x 300	24 x 12	630 x 325 610 x 323.9	432	397	83.5 79.8	95.8 91.5	143 137	678 662	191 182	263 251
600 x 250	24 x 10	630 x 273 610 x 323.9	432	384	81.6 77.9	93.6 89.3	140 134	662 647	187 178	257 245
650 x 650	26 x 26	660 x 660	495	495	—	—	206	—	274	—
650 x 600	26 x 24	660 x 610	495	483	—	—	197	—	263	—

SHREE RAJ STEELS

Tees - Unequal & Equal

(Size):

(Seamless) 1/2"-24" (DN15-DN600)

(Welded)- ERW, 2-JOINT, WX=1- 1/2"-60"
(DN15-DN1500)

(Thickness): SCH5S-XXS

(Standard):

ASME/ANSI B16.9, B16.11, B16.25, B16.28, MSS-SP-43
EN 10253

DIN 2605, 2609, 2615, 2616, 2617

JIS B2311, B2312, B2313

(Grade):

Carbon Steel- ASTM A234 WPB/C

Alloy Steel- ASTM, A234, WP1, 2, 5, 9, 11, 22, 91, ASTM
A420 Gr.6, ASTM A860 WPHY

42, 46, 52, 60, 65, 70

Stainless Steel, Duplex, Super Duplex- WP 304/L/H,
316/L/Ti/H, 317L, 310/S,

347/H, 321/H, 904/L, S32750/SAF2507,

532205/SAF2205, 531803, 532760,

SMO254

Monel, Inconel, Hastelloy

(Surface Finish):

Black Painted, 3LPE Coated, Bare, Galvanised,
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NORMINAL DIAMETER		OUTSIDE DIAMETER	CENTER TO END		APPROX WEIGHT					
DN	NPS	D1 X D2	C	M	SCH5S	SCH 10S	SCH20S/STD	SCH40S/XS	SCH80S/XS	SCH 80
650 x 500	26 x 20	660 x 508.0	495	457	—	—	185	—	246	—
650 x 450	26 x 18	660 x 457.2	495	444	—	—	183	—	244	—
650 x 400	26 x 16	660 x 406.4	495	432	—	—	179	—	238	—
650 x 350	26 x 14	660 x 355.6	495	432	—	—	175	—	233	—
650 x 300	26 x 12	660 x 323.9	495	422	—	—	171	—	227	—
700 x 700	28 x 28	720 x 720 711 x 711	521	521	—	—	232 229	—	300 305	—
700 x 650	28 x 26	711 x 660	521	521	—	—	222	—	293	—
700 x 600	28 x 24	720 x 630 711 x 610	510	508	—	—	222 211	—	296 275	—
700 x 550	28 x 22	711 x 559	521	495	—	—	204	—	272	—
700 x 500	28 x 20	720 x 529 711 x 508	521	483	—	—	222 199	—	296 265	—
700 x 450	28 x 18	720 x 478 711 x 457	521	470	—	—	208 195	—	275 263	—
700 x 400	28 x 16	720 x 426 711 x 406.4	521	457	—	—	206 190	—	268 259	—
700 x 350	28 x 14	720 x 377 711 x 355.6	521	457	—	—	201 183	—	260 253	—
700 x 300	28 x 12	720 x 325 711 x 323.9	521	448	—	—	197 179	—	256 244	—
750 x 750	30 x 30	762 x 762	559	559	176	200	264	—	352	—
750 x 700	30 x 28	762 x 711	559	546	—	—	254	—	338	—
750 x 650	30 x 26	762 x 660	559	546	—	—	243	—	323	—
750 x 600	30 x 24	762 x 610	559	533	158	197	238	—	317	—
750 x 550	30 x 22	762 x 559	559	521	157	195	235	—	314	—
750 x 500	30 x 20	762 x 508	559	508	153	174	230	—	306	—
750 x 450	30 x 18	762 x 457	559	495	149	170	224	—	299	—
750 x 400	30 x 16	762 x 406.4	559	483	146	166	219	—	292	—
750 x 350	30 x 14	762 x 355.6	559	483	141	166	211	—	285	—
750 x 300	30 x 12	762 x 323.9	559	473	137	156	206	—	275	—
750 x 250	30 x 10	762 x 273	559	460	132	150	198	—	264	—
800 x 800	32 x 32	820 x 820 813 x 813	597	597	—	—	303 302	—	405 402	—
800 x 750	32 x 30	813 x 762	597	584	—	—	290	—	386	—
800 x 700	32 x 28	820 x 720 713 x 711	597	572	—	—	291 277	—	388 370	—
800 x 650	32 x 26	813 x 660	597	572	—	—	271	—	362	—

SHREE RAJ STEELS

Tees - Unequal & Equal

(Size):

(Seamless) 1/2"-24" (DN15-DN600)

(Welded)- ERW, 2-JOINT, WX=1- 1/2"-60"

(DN15-DN1500)

(Thickness): SCH5S-XXS

(Standard):

ASME/ANSI B16.9, B16.11, B16.25, B16.28, MSS-SP-43

EN 10253

DIN 2605, 2609, 2615, 2616, 2617

JIS B2311, B2312, B2313

(Grade):

Carbon Steel- ASTM A234 WPB/C

Alloy Steel- ASTM, A234, WP1, 2, 5, 9, 11, 22, 91, ASTM

A420 Gr.6, ASTM A860 WPHY

42, 46, 52, 60, 65, 70

Stainless Steel, Duplex, Super Duplex- WP 304/L/H,

316/L/Ti/H, 317L, 310/S,

347/H, 321/H, 904/L, S32750/SAF2507,

532205/SAF2205, 531803, 532760,

SMO254

Monel, Inconel, Hastelloy

(Surface Finish):

Black Painted, 3LPE Coated, Bare, Galvanised,

Epoxy Coating, Industrial etc.

*Weights are approximate

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Contact: +91 7069672923 | +91 7400410762

NORMINAL DIAMETER		OUTSIDE DIAMETER	CENTER TO END		APPROX WEIGHT					
DN	NPS	D1 X D2	C	M	SCH5S	SCH 10S	SCH20S/ STD	SCH40S/ XS	SCH80S/ XS	SCH 80
800 x 600	32 x 24	820 x 630 813 x 610	597	559	—	—	279 268	—	356 358	—
800 x 550	32 x 22	813 x 559	597	546	—	—	262	—	350	—
800 x 500	32 x 20	820 x 529 813 X 508	597	533	—	—	273 256	—	264 342	—
800 x 450	32 x 18	820 x 478 813 X 457	597	521	—	—	270 250	—	360 334	—
800 x 400	32 x 16	820 x 426 813 X 406.4	597	508	—	—	264 241	—	352 322	—
800 x 350	32 x 14	820 x 377 813 X 355	597	508	—	—	258 235	—	344 314	—
850 x 850	34 x 34	864 x 864	635	635	—	—	341	626	415	—
850 x 800	34 x 32	864 x 813	635	622	—	—	328	610	437	—
850 x 750	34 x 30	864 x 762	635	610	—	—	314	—	419	—
850 x 700	34 x 28	864 x 711	635	597	—	—	307	—	409	—
850 x 650	34 x 26	864 x 660	635	597	—	—	304	—	405	—
850 x 600	34 x 24	864 x 610	635	584	—	—	297	545	396	—
850 x 550	34 x 22	864 x 559	635	572	—	—	290	532	387	—
850 x 500	34 x 20	864 x 508	635	559	—	—	283	520	378	—
850 x 450	34 x 18	864 x 457	635	546	—	—	273	501	364	—
850 x 400	34 x 16	864 x 406.7	635	533	—	—	266	488	355	—
900 x 900	36 x 36	920 x 920 914 X 914	673	673	—	—	648 639	786 767	543 511	—
900 x 850	36 x 34	914 x 864	673	660	—	—	619	736	511	—
900 x 800	36 x 32	920 x 820 914 X 813	673	648	—	—	370 353	741 690	594 470	—
900 x 750	36 x 30	914 x 762	673	635	—	—	345	—	460	—
900 x 700	36 x 28	920 x 720 914 X 711	673	622	—	—	355 341	—	473 455	—
900 x 650	36 x 26	914 x 660	673	622	—	—	333	—	447	—
900 x 600	36 x 24	914 x 610	673	610	—	—	326	651	434	—
900 x 550	36 x 22	914 x 559	673	597	—	—	318	636	424	—
900 x 500	36 x 20	920 x 529	673	584	—	—	347 306	685 598	462 409	—
900 x 450	36 x 18	920 x 478 914 x 457	673	572	—	—	343 299	693 913	457 398	—
900 x 400	36 x 16	920 x 426 914 x 406.4	673	559	—	—	335 287	669 575	447 383	—

SHREE RAJ STEELS

Tees - Unequal & Equal

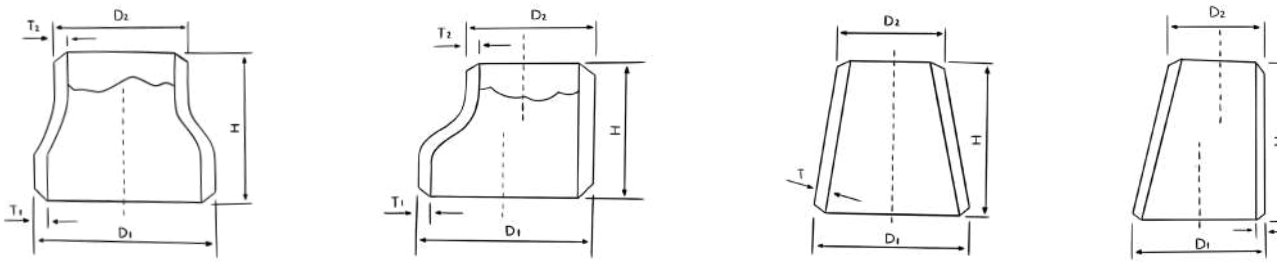
- (Size):
- (Seamless) 1/2"-24" (DN15-DN600)
- (Welded)- ERW, 2-JOINT, WX=1- 1/2"-60" (DN15-DN1500)
-
- (Thickness): SCH5S-XXS
-
- (Standard):
- ASME/ANSI B16.9, B16.11, B16.25, B16.28, MSS-SP-43
- EN 10253
- DIN 2605, 2609, 2615, 2616, 2617
- JIS B2311, B2312, B2313
-
- (Grade):
- Carbon Steel- ASTM A234 WPB/C
- Alloy Steel- ASTM, A234, WP1, 2, 5, 9, 11, 22, 91, ASTM A420 Gr.6, ASTM A860 WPHY
- 42, 46, 52, 60, 65, 70
- Stainless Steel, Duplex, Super Duplex- WP 304/L/H, 316/L/Ti/H, 317L, 310/S,
- 347/H, 321/H, 904/L, S32750/SAF2507, 532205/SAF2205, 531803, 532760,
- SMO254
- Monel, Inconel, Hastelloy
-
- (Surface Finish):
- Black Painted, 3LPE Coated, Bare, Galvanised, Epoxy Coating, Industrial etc.

*Weights are approximate

Email Address: srsteelbby@gmail.com

Website: www.shreerajsteels.com

Contact: +91 7069672923 | +91 7400410762



SHREE RAJ STEELS

Reducers

(Size): 1/2"-60" (DN15-DN1500)

(Thickness): SCH5S-XXS

(Standard):

ASME/ANSI B16.9, B16.11, B16.25, B16.28, MSS-SP-43
EN 10253

DIN 2605, 2609, 2615, 2616, 2617

JIS B2311, B2312, B2313

(Grade):

- Carbon Steel- ASTM A234 WPB/C
- Alloy Steel- ASTM, A234, WP1, 2, 5, 9, 11, 22, 91,
ASTM A420 Gr.6, ASTM A860 WPHY 42, 46, 52,
60, 65, 70
- Stainless Steel, Duplex, Super Duplex- WP
304/L/H, 316/L/Ti/H, 317L, 310/S, 347/H, 321/H,
904/L, S32750/SAF2507, 532205/SAF2205,
531803, 532760, SMO254
- Monel, Inconel, Hastelloy

(Surface Finish):

Black Painted, 3LPE Coated, Bare, Galvanised,
Epoxy Coating Industrial etc.

*Weights are approximate

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NORMINAL DIAMETER		OUTSIDE DIAMETER	CENTER TO END		APPROX WEIGHT				
DN	NPS	D1 X D2	C	M	SCH5S	SCH 10S	SCH40S/STD	SCH40	SCH80S/XS
20 x 15	3/4 x 1/2	25 x 18 26.7 x 21.3	38	0.03 0.04	0.04 0.04	0.05 0.06	0.05 0.06	0.07 0.07	0.07 0.07
25 x 20	1 x 3/4	32 x 25 33.4 x 26.7	51	0.06 0.06	0.09 0.10	0.11 0.11	0.11 0.11	0.14 0.15	0.14 0.15
25 x 15	1 x 1/2	32 x 18 33.4 x 21.3	51	0.05 0.06	0.08 0.09	0.09 0.10	0.09 0.10	0.12 0.13	0.12 0.13
32 x 25	1.1/4 x 1	38 x 32 42.2 x 33.4	51	0.07 0.08	0.11 0.12	0.14 0.15	0.14 0.15	0.18 0.20	0.18 0.20
32 x 20	1.1/4 x 3/4	38 x 25 42.2 x 26.7	51	0.06 0.07	0.10 0.11	0.13 0.14	0.13 0.14	0.16 0.18	0.16 0.18
32 x 15	1.1/4 x 1/2	38 x 18 42.2 x 21.3	51	0.06 0.07	0.09 0.11	0.11 0.13	0.11 0.13	0.14 0.17	0.14 0.17
40 x 32	1.1/2 x 1.1/4	45 x 38 48.3 x 33.4	64	0.11 0.11	0.17 0.19	0.22 0.24	0.22 0.24	0.29 0.32	0.29 0.32
40 x 25	1.1/2 x 1	45 x 32 48.3 x 33.4	64	0.10 0.10	0.16 0.17	0.20 0.22	0.20 0.22	0.27 0.29	0.27 0.29
40 x 20	1.1/2 x 3/4	45 x 25 48.3 x 26.7	64	0.09 0.10	0.15 0.16	0.18 0.20	0.18 0.20	0.24 0.26	0.24 0.26
40 x 15	1.1/2 x 1/2	45 x 18 48.3 x 21.3	64	0.08 0.09	0.13 0.15	0.16 0.19	0.16 0.19	0.21 0.24	0.21 0.24
50 x 40	2 x 1.1/2	57 x 45 60.3 x 48.3	76	0.16 0.17	0.26 0.27	0.35 0.37	0.35 0.37	0.47 0.51	0.47 0.51
50 x 32	2 x 1.1/4	57 x 38 60.3 x 42.2	76	0.15 0.16	0.24 0.26	0.32 0.35	0.32 0.35	0.44 0.48	0.44 0.48
50 x 25	2 x 1	57 x 32 60.3 x 33.4	76	0.14 0.14	0.22 0.24	0.30 0.32	0.30 0.32	0.41 0.44	0.41 0.44
65 x 50	2.1/2 x 2	76 x 57 73.0 x 60.3	89	0.30 0.30	0.43 0.43	0.70 0.70	0.70 0.70	0.92 0.92	0.92 0.92
65 x 40	2.1/2 x 1.1/2	76 x 45 73.0 x 48.3	89	0.28 0.28	0.40 0.40	0.64 0.63	0.64 0.63	0.84 0.83	0.84 0.83
65 x 32	2.1/2 x 1.1/4	76 x 38 73.0 x 42.2	89	0.26 0.27	0.38 0.38	0.60 0.60	0.60 0.60	0.79 0.79	0.79 0.79
65 x 25	2.1/2 x 1	76 x 32 73.0 x 33.4	89	0.25 0.25	0.36 0.35	0.57 0.56	0.57 0.56	0.75 0.73	0.75 0.73
80 x 65	3 x 2.1/2	89 x 76 88.9 x 73.0	89	0.38 0.37	0.54 0.53	0.93 0.91	0.93 0.91	1.26 1.23	1.26 1.23
80 x 50	3 x 2	89 x 57 88.9 x 60.3	89	0.34 0.35	0.48 0.49	0.83 0.84	0.83 0.84	1.11 1.13	1.11 1.13

NORMINAL DIAMETER		OUTSIDE DIAMETER	CENTER TO END		APPROX WEIGHT				
80 X 40	3 X 1.1/2	89 X 45 88.9 X 48.3	89	0.31 0.32	0.45 0.45	0.76 0.78	0.76 0.78	1.02 1.05	1.02 1.05
90 x 80	3.1/2 x 3	101.6 x 88.9	102	0.50	0.72	1.29	1.29	1.77	1.77
90 x 65	3.1/2 x 2.1/2	101.6 x 73.0	102	0.46	0.66	1.12	1.12	1.63	1.63
90 x 50	3.1/2 x 2	101.6 x 60.3	102	0.43	0.62	1.1	1.1	1.51	1.51
90 x 40	4 X 3.1/2	101.6 x 48.3	102	0.41	0.58	1.03	1.03	1.40	1.40
100 x 90	3.1/2 X 1.1/2	114.3 x 101.6	102	0.57	0.82	1.55	1.55	2.41	2.41
100 x 80	4 x 3	108 x 89 114.3 x 88.9	102	0.52 0.54	0.75 0.77	1.41 1.46	1.41 1.46	1.94 2.02	1.94 2.02
100 x 65	4 x 2.1/2	108 x 76 114.3 x 73.0	102	0.49 0.59	0.70 0.72	1.32 1.35	1.32 1.35	1.82 1.87	1.82 1.87
100 x 50	4 x 2	108 x 57 114.3 x 60.3	102	0.44 0.48	0.64 0.68	1.19 1.27	1.19 1.27	1.64 1.75	1.64 1.75
125 x 100	5 x 4	133 x 108 141.3 x 114.3	127	1.04 1.11	1.27 1.35	2.35 2.50	2.35 2.50	3.33 3.55	3.33 3.55
125 x 90	5 x 3.1/2	141.3 x 101.6	127	1.06	1.29	2.38	2.06	3.38	3.38
125 x 80	5 x 3	133 x 89 141.3 x 88.9	127	0.97 1.01	1.18 1.23	2.17 2.27	2.17 2.27	3.07 3.22	3.07 3.22
125 x 65	5 x 2.1/2	133 x 76 141.3 x 73.0	127	0.92 0.95	1.12 1.16	2.06 2.14	2.06 2.14	2.91 3.02	2.91 3.02
150 x 125	6 x 5	159 x 133 168.3 x 141.3	140	1.40 1.48	1.71 1.81	3.42 3.64	3.42 3.64	5.14 5.47	5.14 5.47
150 x 100	6 x 4	159 x 108 168.3 x 114.3	140	1.29 1.37	1.58 1.67	3.15 3.36	3.15 3.36	4.72 5.03	4.72 5.03
150 x 90	6 x 3.1/2	168.3 x 101.6	140	1.32	1.61	3.23	3.23	4.83	4.83
150 x 80	6 x 3	159 x 89 168.3 x 88.9	140	1.21 1.26	1.48 1.53	2.96 3.07	2.96 3.87	4.41 4.58	4.41 4.58
200 x 150	8 x 6	219 x 159 219.1 x 168.3	152	2.00 2.04	2.70 2.75	5.56 5.77	5.65 5.77	8.55 8.73	8.55 8.73
200 x 125	8 x 5	219 x 133 219.1 x 141.3	152	1.90 1.93	2.56 2.60	5.35 5.44	5.35 5.44	8.09 8.23	8.09 8.23
200 x 100	8 x 4	219 x 108 219.1 x 114.3	152	1.80 1.83	2.43 2.46	5.07 5.14	5.07 5.44	7.64 7.75	7.64 7.75
250 x 200	10 x 8	273 x 219	178	3.72	4.56	9.74	9.74	15.5	15.5
250 x 150	10 x 6	273 x 159 273.1 x 168.3	178	3.38 3.43	4.15 4.21	8.83 8.96	14.0 14.2	14.0 14.2	14.0 14.2
250 x 125	10 x 5	273 x 133 273.1 x 141.3	178	3.25 3.29	3.99 4.04	8.47 8.59	8.59 13.6	13.4 13.6	13.4 13.6
300 x 250	12 x 10	325 x 273 323.9 x 273.1	203	5.98 5.97	6.89 6.88	13.9 13.9	15.0 15.0	18.3 18.3	24.8 24.8
300 x 200	12 x 8	325 x 219 323.9 x 219.1	203	5.57 5.56	6.42 6.41	12.9 12.9	14.0 13.9	17.0 17.0	23.0 23.0

SHREE RAJ STEELS

Reducers

(Size): 1/2"-60" (DNI5-DNI500)

(Thickness): SCH5S-XXS

(Standard):

ASME/ANSI B16.9, B16.11, B16.25, B16.28, MSS-SP-43

EN 10253

DIN 2605, 2609, 2615, 2616, 2617

JIS B2311, B2312, B2313

(Grade):

- Carbon Steel- ASTM A234 WPB/C
- Alloy Steel- ASTM, A234, WP1, 2, 5, 9, 11, 22, 91, ASTM A420 Gr.6, ASTM A860 WPHY 42, 46, 52, 60, 65, 70
- Stainless Steel, Duplex, Super Duplex- WP 304/L/H, 316/L/Ti/H, 317L, 310/S, 347/H, 321/H, 904/L, S32750/SAF2507, 532205/SAF2205, 531803, 532760, SMO254
- Monel, Inconel, Hastelloy

(Surface Finish):

Black Painted, 3LPE Coated, Bare, Galvanised,

Epoxy Coating Industrial etc.

*Weights are approximate

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NOMINAL DIAMETER		OUTSIDE DIAMETER	CENTER TO END		APPROX WEIGHT				
DN	NPS	D1 X D2	C	M	SCH5S	SCH 10S	SCH40S/STD	SCH40	SCH80S/XS
300 x 150	12 x 6	325 x 159 323.9 x 168.3	203	5.17 5.22	5.95 6.00	12.0 12.1	12.9 13.0	15.7 15.9	21.2 21.4
350 x 300	14 x 12	377 x 325 355.6 x 323.9	330	11.4 11.0	13.7 13.2	26.6 25.6	30.9 29.8	35.1 33.8	51.6 49.8
350 x 250	14 x 10	377 x 273 355.6 x 273.1	330	10.6 10.2	12.8 12.3	24.8 23.8	28.8 27.7	32.7 27.7	48.0 46.1
350 x 200	14 x 8	377 x 219 355.6 x 219.1	330	9.89 9.46	11.9 11.4	23.0 22.0	26.7 25.5	30.3 29.0	44.5 42.5
350 x 150	14 x 6	377 x 159 355.6 x 168.3	330	9.63 9.22	11.0 10.5	21.1 20.2	24.5 23.5	27.8 26.6	40.7 38.9
400 x 350	16 x 14	426 x 377 406.4 x 355.6	356	14.9 14.1	16.9 16.1	32.9 31.2	43.5 41.2	43.5 41.2	71.7 67.9
400 x 300	16 x 12	426 x 325 406.4 x 323.9	356	14.0 13.6	16.0 15.4	31.0 29.9	40.9 39.5	40.9 39.5	67.4 65.1
400 x 250	16 x 10	426 x 273 406.4 x 273.1	356	13.2 12.7	15.0 14.5	29.1 28.1	38.4 37.1	38.4 37.1	63.1 60.9
400 x 200	16 x 8	426 x 219 406.4 x 219.1	356	12.4 11.9	14.1 13.6	27.3 26.2	36.0 34.6	36.0 34.6	59.1 56.7
400 x 150	16 x 6	426 x 159 406.4 x 168.3	356	11.5 9.96	13.1 12.7	25.3 24.5	33.3 32.3	33.3 32.3	54.5 52.7
450 x 400	18 x 16	478 x 426 457 x 406.4	381	17.9 17.1	20.4 19.5	39.7 37.9	58.8 56.1	52.6 50.1	96.1 91.6
450 x 350	18 x 14	478 x 377 457 x 355.6	381	17.1 16.2	19.4 18.5	37.7 35.8	55.8 53.0	49.9 47.4	91.1 86.3
450 x 300	18 x 12	478 x 325 457 x 323.9	381	16.2 15.7	18.5 17.9	35.8 34.7	53.0 51.2	47.4 45.8	86.3 83.4
450 x 250	18 x 10	478 x 273 457 x 273.1	381	15.4 14.8	17.6 16.9	34.1 32.8	50.3 48.4	45.0 43.3	81.8 78.6
450 x 200	18 x 8	478 x 219 457 x 219.1	381	14.5 14.0	16.5 15.9	32.0 30.8	47.3 45.5	42.3 40.7	76.7 73.7
500 x 450	20 x 18	529 x 478 508 x 457	508	30.4 29.1	35.2 33.7	59.1 56.6	92.5 88.6	78.2 74.9	156 150
500 x 400	20 x 16	529 x 426 508 x 406.4	508	28.9 27.7	33.4 32.0	56.2 53.8	87.9 84.1	74.4 71.1	149 142
500 x 350	20 x 14	529 x 377 508 x 355.6	508	27.6 26.3	31.9 30.4	53.6 51.0	83.8 79.7	70.9 67.4	142 135
500 x 300	20 x 12	529 x 325 508 x 323.9	508	26.2 25.4	30.3 29.4	50.8 49.3	79.4 77.0	67.2 65.1	134 130
500 x 250	20 x 10	529 x 273 508 x 273.1	508	24.8 24.0	28.7 27.8	48.2 26.7	75.2 72.8	63.7 61.7	127 123
500 x 200	20 x 8	529 x 219 508 x 219.1	508	23.5 22.7	27.1 26.2	45.5 43.9	70.9 68.5	60.1 58.0	119 115

SHREE RAJ STEELS

Reducers

(Size): 1/2"-60" (DNI5-DNI500)

(Thickness): SCH5S-XXS

(Standard):

ASME/ANSI B16.9, B16.11, B16.25, B16.28, MSS-SP-43
EN 10253

DIN 2605, 2609, 2615, 2616, 2617

JIS B2311, B2312, B2313

(Grade):

- Carbon Steel- ASTM A234 WPB/C
- Alloy Steel- ASTM, A234, WP1, 2, 5, 9, 11, 22, 91, ASTM A420 Gr.6, ASTM A860 WPHY 42, 46, 52, 60, 65, 70
- Stainless Steel, Duplex, Super Duplex- WP 304/L/H, 316/L/Ti/H, 317L, 310/S, 347/H, 321/H, 904/L, S32750/SAF2507, 532205/SAF2205, 531803, 532760, SMO254
- Monel, Inconel, Hastelloy

(Surface Finish):

Black Painted, 3LPE Coated, Bare, Galvanised, Epoxy Coating Industrial etc.

*Weights are approximate

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NORMINAL DIAMETER		OUTSIDE DIAMETER	CENTER TO END		APPROX WEIGHT				
550 x 500	22 x 20	559 x 508	508	32.1	37.3	62.7	-	83.0	182
550 x 450	22 x 18	559 x 457	508	30.8	35.8	59.9	-	79.3	174
550 x 400	22 x 16	559 x 406.4	508	29.4	34.0	57.2	-	75.7	165
550 x 350	22 x 14	559 x 355.6	508	28.0	32.5	54.5	-	72.1	157
600 x 550	24 x 22	610 X 559	508	28	40.8 46.2	68.8	-	91.2	215
600 x 500	24 x 20	630 529	508	40.4	46.2	68.0	123	90.1	212
		610 x 508		39.2	44.9	66.0	119	87.4	206
600 x 450	24 x 18	630 X 478	508	39.1	44.7	65.8	119	87.1	205
		610 x 457		37.6	43.1	63.3	114	83.9	197
600 x 400	24 x 16	630 X 426	508	37.5	43.0	63.1	114	83.6	197
		610 x 406.4		36.1	41.3	60.7	110	80.4	189
650 x 600	26 x 24	660 x 610	610	-	-	89.8	119	119	-
650 x 550	26 x 22	660 x 559	610	-	-	86.3	114	114	-
650 x 500	26 x 20	660 x 508	610	-	-	83	110	110	-
650 x 450	26 x 18	660 x 457	610	-	-	79.6	105	105	-
700 x 650	28 x 26	711 x 660	610	-	-	97.1	129	129	-
700 x 600	28 x 24	720 x 630	610	-	-	95.7	-	127	-
		711 x 610		-	-	93.6	-	124	-
700 x 550	28 x 22	711 x 559	610	-	-	90.4	120	120	-
750 x 700	30 x 28	762 x 711	610	-	-	104	139	139	-
750 x 650	30 x 26	762 x 660	610	-	-	101	133	133	-
750 x 600	30 x 24	762 x 610	610	66.4	82.7	97.8	130	130	-
750 x 550	30 x 22	762 x 559	610	63.9	80	94.5	125	125	-
800 x 750	32 x 30	813 x 762	610	-	-	112	148	148	-
800 x 700	32 x 28	820 x 720	610	-	-	109	-	145	-
		812 x 711		-	-	108	-	144	-
800 x 650	32 x 26	812 x 660	610	-	-	105	139	139	-
800 x 600	32 x 24	820 x 630	610	-	-	102	-	138	-
		813 x 610		-	-	104	-	135	-
850 x 800	34 x 32	864 x 813	610	-	-	119	158	158	-
850 x 750	34 x 30	864 x 762	610	-	-	116	153	153	-
850 x 700	34 x 28	864 x 711	610	-	-	112	149	149	-
850 x 650	34 x 26	864 x 660	610	-	-	109	145	145	-
900 x 850	36 x 34	914 x 864	610	-	-	126	168	168	-
900 x 800	36 x 32	920 x 820	610	-	-	124	-	164	-
		914 x 813		-	-	123	-	163	-
900 x 750	36 x 30	914 x 762	610	-	-	120	159	159	-
900 x 700	36 x 28	920 x 720	610	-	-	118	-	156	-
		914 x 711		-	-	117	-	155	-

SHREE RAJ STEELS

Reducers

(Size): 1/2"-60" (DNI5-DNI500)

(Thickness): SCH5S-XXS

(Standard):

ASME/ANSI B16.9, B16.11, B16.25, B16.28, MSS-SP-43
EN 10253

DIN 2605, 2609, 2615, 2616, 2617

JIS B2311, B2312, B2313

(Grade):

- Carbon Steel- ASTM A234 WPB/C
- Alloy Steel- ASTM, A234, WP1, 2, 5, 9, 11, 22, 91, ASTM A420 Gr.6, ASTM A860 WPHY 42, 46, 52, 60, 65, 70
- Stainless Steel, Duplex, Super Duplex- WP 304/L/H, 316/L/Ti/H, 317L, 310/S, 347/H, 321/H, 904/L, S32750/SAF2507, 532205/SAF2205, 531803, 532760, SMO254
- Monel, Inconel, Hastelloy

(Surface Finish):

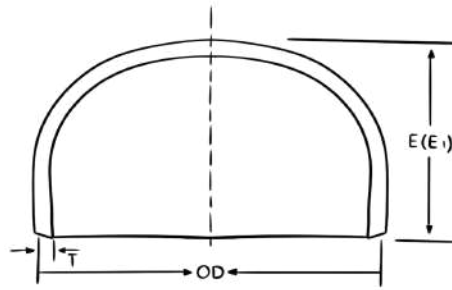
Black Painted, 3LPE Coated, Bare, Galvanised, Epoxy Coating Industrial etc.

*Weights are approximate

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Contact: +91 7069672923 | +91 7400410762



SHREE RAJ STEELS

Caps

(Size): 1/2"-60" (DN15-DN1500)

(Thickness): SCH5S-XXS

(Standard):

ASME/ANSI B16.9, B16.11, B16.25, B16.28, MSS-SP-43
EN 10253

DIN 2605, 2609, 2615, 2616, 2617

JIS B2311, B2312, B2313

(Grade):

- Carbon Steel- ASTM A234 WPB/C
- Alloy Steel- ASTM, A234, WP1, 2, 5, 9, 11, 22, 91,
ASTM A420 Gr.6, ASTM A860 WPHY
42, 46, 52, 60, 65, 70
- Stainless Steel, Duplex, Super Duplex- WP
304/L/H, 316/L/Ti/H, 317L, 310/S, 347/H, 321/H,
904/L, S32750/SAF2507, 532205/SAF2205,
531803, 532760, SMO254
- Monel, Inconel, Hastelloy

(Surface Finish):

Black Painted, 3LPE Coated, Bare, Galvanised,
Epoxy Coating, Industrial etc.

*Weights are approximate

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NORMINAL DIAMETER		OUTSIDE DIAMETER	CENTER TO END		APPROX WEIGHT					
DN	NPS	OD	E	E1	SCH5S	SCH 10S	SCH40S/STD	SCH40	SCH80S/XS	SCH80
15	1/2	18	25	25	0.019	0.024	0.031	0.031	0.042	0.042
		21.3			0.022	0.028	0.037	0.037	0.050	0.050
20	3/4	25	25	25	0.027	0.033	0.045	0.045	0.060	0.060
		26.7			0.029	0.035	0.048	0.048	0.065	0.065
25	1	32	38	38	0.049	0.083	0.101	0.101	0.136	0.136
		33.7			0.052	0.087	0.106	0.106	0.143	0.143
32	1.1/4	38	38	38	0.058	0.099	0.126	0.126	0.173	0.173
		42.4			0.065	0.110	0.141	0.141	0.193	0.193
40	1.1/2	45	38	38	0.071	0.118	0.158	0.158	0.218	0.218
		48.3			0.076	0.127	0.169	0.169	0.234	0.234
50	2	57	38	44	0.094	0.156	0.221	0.221	0.313	0.313
		60.3			0.099	0.165	0.234	0.234	0.331	0.331
65	2.1/2	76	38	51	0.167	0.241	0.409	0.409	0.555	0.555
		73			0.161	0.232	0.393	0.393	0.534	0.534
80	3	89	51	64	0.254	0.367	0.66	0.66	0.917	0.917
		101.6			0.355	0.512	0.965	0.965	1.36	1.36
90	3.1/2	101.6	64	76	0.355	0.512	0.965	0.965	1.36	1.36
		108			0.387	0.561	1.11	1.11	1.58	1.58
100	4	114.3	64	76	0.410	0.594	1.17	1.17	1.67	1.67
		133			0.769	0.945	1.82	1.82	2.65	2.65
125	5	139.7	76	89	0.808	0.993	1.91	1.91	2.78	2.78
		141.3			0.817	1.00	1.93	1.93	2.81	2.81
150	6	159	89	102	1.07	1.31	2.74	2.74	4.22	4.22
		168.3			1.13	1.39	2.90	2.90	4.47	4.47
200	8	165.2	89	102	1.11	1.36	2.85	2.85	4.39	4.39
		219			1.76	2.38	5.19	5.19	8.05	8.05
250	10	216.1	102	127	1.74	2.35	5.13	5.13	7.95	7.95
		273			3.36	4.14	9.15	9.15	12.5	16.3
250	10	267.4	127	152	3.29	4.05	8.96	8.96	12.2	16.4

Caps

(Size): 1/2"-60" (DN15-DN1500)

(Thickness): SCH5S-XXS

(Standard):

ASME/ANSI B16.9, B16.11, B16.25, B16.28, MSS-SP-43
EN 10253
DIN 2605, 2609, 2615, 2616, 2617
JIS B2311, B2312, B2313

(Grade):

- Carbon Steel- ASTM A234 WPB/C
- Alloy Steel- ASTM, A234, WP1, 2, 5, 9, 11, 22, 91, ASTM A420 Gr.6, ASTM A860 WPHY 42, 46, 52, 60, 65, 70
- Stainless Steel, Duplex, Super Duplex- WP 304/L/H, 316/L/Ti/H, 317L, 310/S, 347/H, 321/H, 904/L, S32750/SAF2507, 532205/SAF2205, 531803, 532760, SMO254
- Monel, Inconel, Hastelloy

(Surface Finish):

Black Painted, 3LPE Coated, Bare, Galvanised,
Epoxy Coating, Industrial etc.

*Weights are approximate

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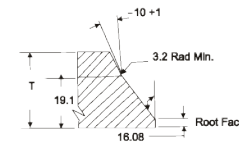
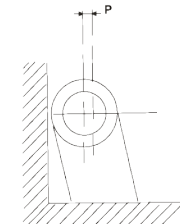
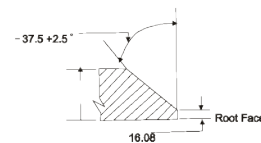
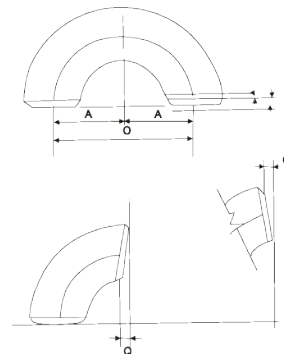
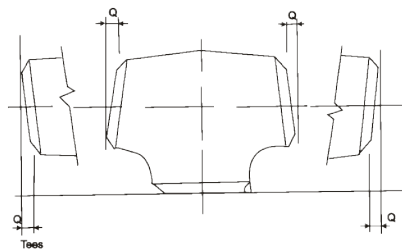
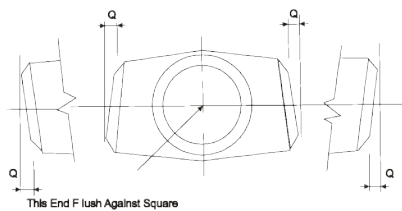
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NORMINAL DIAMETER		OUTSIDE DIAMETER	CENTER TO END		APPROX WEIGHT					
DN	NPS	OD	E	E1	SCH5S	SCH 10S	SCH40S/STD	SCH40	SCH80S/XS	SCH80
300	12	325	152	187	5.12	6.40	13.5	14.6	17.9	28.3
		323.9			5.11	6.39	13.3	14.4	17.7	27.1
		318.5			5.02	6.27	13.2	14.2	17.3	26.8
350	14	377	165	191	6.00	8.46	16.9	19.9	22.5	38.5
		355.6			5.66	7.87	15.9	18.8	21.2	35.2
400	16	426	178	203	6.93	7.91	21.0	28.2	28.0	52.0
		406.4			6.60	7.53	20.0	26.0	26.7	49.1
450	18	478	203	229	7.90	9.01	26.9	43.8	35.8	76.1
		457.2			7.52	8.58	25.6	41.4	34.1	69.1
500	20	529	229	254	10.5	12.02	33.2	57.6	44.2	103
		508.0			10.1	11.7	31.9	54.0	42.5	93.7
550	22	559	254	254	12.1	22.6	38.8	78.3	51.7	116
600	24	630	267	305	14.8	16.9	46.5	92.3	61.9	177
		610			14.3	16.4	45.1	90.1	60.1	160
650	26	660	267	-	23.3	26.1	50.5	103.5	67.3	-
700	28	720	267	-	27.1	32.4	56.9	151.1	75.6	-
		711			38.7	49.7	56.2	121.3	74.9	-
750	30	762	267	-	41.4	51.7	62.1	117.3	82.8	-
800	32	820	267	-	43.4	58.3	70.6	127	92.0	-
		813			43.1	57.7	70.0	126	91.2	-
850	34	864	267	-	57.2	68.5	78.7	144	105	-
900	36	920	267	-	60.3	74.6	86.6	172	115	-
		914			59.1	72.1	85.7	171	114	-

DIMENSION TOLERANCE ANSI B16.9 / B16.8 /MSS SP - 43

ALL FITTINGS				90°/60°/45° 30° ELBOWS & TEES		REDUC- ERS		180° RETURNS				CAPS		ANGULARITY TOLERANCE																		
Nominal Pipe size INCH/MM	Outside Diameter at Bevel		Inside Dia Meter	Wall Thickness at End		Center to End		Overall Lenth Dimension		Center to End		Back to Face Dimension		Alingment of End Dimentions		Overall Lengh		Nominal Pipe Size		Off Angel Inch/mm		Off Plane										
	D			T		A,B,C,M		H		O		K		U		E		Q		P												
	(1) B16.9	MSS Sp43	(2) B16.9	B16.9	MSS SP43	B16.9	MSS SP43	B16.9	MSS SP43	B16.9	MSS SP43	B16.9	MSS SP43	B16.9	MSS SP43	B16.9	MSS SP43		B16.9	MSS SP75	B16.9											
½" - 2½" 15 - 65	±1.6 - 0.8	±0.80	±0.8	Not Less Than 87.5% Nominal Thk	Not Less Than 87.5% Nominal Thk	FROM ½" TO 18 15 TO 600	FROM ¾"	FROM 1½" - 24" 15 - 600	FROM 1½" - 8" 15 - 200	±6	±6.35	±6.0	±6.4	±1	±0.8	±3	±3.17	½" - 4" 15 - 100	±1	16" - 24" 400 - 600 1.6	±2											
3" - 3½" 80 - 90	±1.6					±1.60	±1.6	±2	±1.60									±2	±1.60			±6	±6.35	±6.0	±6.4	±1	±0.8	±6	±6.35	5" - 8" 125 - 200	±2	±4
4" 100																														10" - 12" 250 - 300	±3	
5" - 6" 125 - 150	+2.4 -1.6	+1.60 -0.80	±1.6			±3.2	±2.40	10" - 24" +2.38 250 - 600	±10	±10	±2.0"	±1.60	±10	±10	±10	±10	±10	±10	14" - 16" 350 - 400	±3	±7											
8" 200																			18" - 24" 450 - 600	±4		±10										
10" - 18" 250 - 450	+4 -3.2	+2.38 -0.80	±4.8			±3.2	±2.40	10" - 24" +2.38 250 - 600	±10	±10	±2.0"	±1.60	±10	±10	±10	±10	±10	±10	26" - 30" 650 - 750	±5	26" - 36" 650 - 900 2.4		±10									
20" - 24" 500 - 600	+6.4 -4.8	3.17 0.79																	32" - 42" 800 - 1050	±5		±13										
26" - 30" 650 - 750	+6.4 -4.8	+4.8																	44" - 48" 1100 - 1200	±5				±20								
32" - 48" 800 - 1200	+6.4 -4.8		42" - 48" 1050 - 1200			±5	±20																									



SHREE RAJ STEELS

Tolerances for
butt-welding fittings

Angularity tolerance of
butt-welding fittings

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MATERIAL SPECIFICATION FOR SEAMLESS / WELDED BUTT-WELDING PIPE FITTINGS

SPECIFICATION (ASTM-2002)	CHEMICAL PROPERTIES								MECHANICAL PROPERTIES					OTHERS
	C%	Mn%	P% (Max)	S% (Max)	Si%	Cr%	Mo%	Ni%	U.T.S. (Min) Mpa	Y.S. (Min) Mpa	ELONG. (Min) L T	Hardness (Max) BHN		
STAINLESS STEEL														
A 403 Gr. WP 304	0.080 Max	2.00 Max	0.045	0.030	1.00 Max	18.0-20.0	-	8.0-11.0	515	205	28	20	-	
A 403 Gr. WP 304L	0.030 Max	2.00 Max	0.045	0.030	1.00 Max	18.0-20.0	-	8.0-12.0	485	170	28	20	-	
A 403 Gr. WP 304H	0.04-0.10	2.00 Max	0.045	0.030	1.00 Max	18.0-20.0	-	8.0-11.0	515	205	28	20	-	
A 403 Gr. WP 304LN	0.030 Max	2.00 Max	0.045	0.030	1.00 Max	18.0-20.0	-	8.0-11.0	515	205	28	20	-	N%=0.10-0.16
A 403 Gr. WP 309	0.20 Max	2.00 Max	0.045	0.030	1.00 Max	22.0-24.0	-	12.0-15.0	515	205	28	20	-	
A 403 Gr. WP 310S	0.080 Max	2.00 Max	0.045	0.030	1.00 Max	24.0-26.0	-	19.0-22.0	515	205	28	20	-	
A 403 Gr. WP 316	0.080 Max	2.00 Max	0.045	0.030	1.00 Max	16.0-18.0	2.0-3.0	10.0-14.0	515	205	28	20	-	
A 403 Gr. WP 316L	0.030 Max	2.00 Max	0.045	0.030	1.00 Max	16.0-18.0	2.0-3.0	10.0-14.0	485	170	28	20	-	
A 403 Gr. WP 316H	0.04-0.10	2.00 Max	0.045	0.030	1.00 Max	16.0-18.0	2.0-3.0	10.0-14.0	515	205	28	20	-	
A 403 Gr. WP 316LN	0.030 Max	2.00 Max	0.045	0.030	1.00 Max	16.0-18.0	2.0-3.0	10.0-13.0	515	205	28	20	-	N%=0.10-0.16
A 403 Gr. WP 317	0.080 Max	2.00 Max	0.045	0.030	1.00 Max	18.0-20.0	3.0-4.0	11.0-15.0	515	205	28	20	-	
A 403 Gr. WP 317L	0.030 Max	2.00 Max	0.045	0.030	1.00 Max	18.0-20.0	3.0-4.0	11.0-15.0	515	205	28	20	-	
A 403 Gr. WP 321	0.080 Max	2.00 Max	0.045	0.030	1.00 Max	17.0-19.0	-	9.0-12.0	515	205	28	20	-	Ti%=(5XC)-0.70
A 403 Gr. WP 321H	0.04-0.10	2.00 Max	0.045	0.030	1.00 Max	17.0-19.0	-	9.0-12.0	515	205	28	20	-	Ti%=(4XC)-0.70
A 403 Gr. WP 347	0.080 Max	2.00 Max	0.045	0.030	1.00 Max	17.0-19.0	-	9.0-12.0	515	205	28	20	-	Cb%=(10XC)-1.10
A 403 Gr. WP 347H	0.04-0.10	2.00 Max	0.045	0.030	1.00 Max	17.0-19.0	-	9.0-12.0	515	205	28	20	-	Cb%=(8XC)-1.10
CARBON STEEL														
A 234 Gr. WPB	0.30 Max	0.29-1.06	0.050	0.058	0.10 Min	0.40 Max	0.15 Max	0.40 Max	415-655	240	30	20	197	Cu%=0.40 Max, Va%=0.08 Max, Cb%=0.02 Max
A 234 Gr. WPC	0.35 Max	0.29-1.06	0.050	0.058	0.10 Min	0.40 Max	0.15 Max	0.40 Max	485-655	275	30	20	197	Cu%=0.40 Max, Va%=0.08 Max, Cb%=0.02 Max
LOW TEMPERATURE CARBON STEEL														
A 420 Gr. WPL6	0.30 Max	0.50-1.35	0.035	0.040	0.15-0.40	0.30 Max	0.12 Max	0.40 Max	415-655	240	30	16.5	197	Cu%=0.40 Max, Va%=0.08 Max, Cb%=0.02 Max Impact Test=-45°C, J=17.3-13-6
A 420 Gr. WPL 3	0.20 Max	0.31-0.64	0.050	0.050	0.13-0.37	-	-	3.20-3.80	450-620	240	30	20	197	Impact Test=-45°C, J=17.3-13-6
ALLOY STEEL														
A 234 Gr. WP 1	0.28 Max	0.30-0.90	0.045	0.045	0.10-0.50	-	0.44-0.65	-	380-550	205	30	20	197	
A 234 Gr. WP 5	0.15 Max	0.30-0.60	0.040	0.030	0.50 Max	4.0-6.0	0.44-0.65	-	415-585	205	30	20	217	
A 234 Gr. WP 9	0.15 Max	0.30-0.60	0.030	0.030	1.00 Max	8.0-10.0	0.90-1.10	-	415-585	205	30	20	217	
A 234 Gr. WP 11 CL1	0.05-0.15	0.30-0.60	0.030	0.030	0.50-1.0	1.0-1.5	0.44-0.65	-	415-585	205	30	20	197	
A 234 Gr. WP 11 CL2	0.05-0.20	0.30-0.80	0.040	0.040	0.50-1.0	1.0-1.5	0.44-0.65	-	485-655	275	30	20	197	
A 234 Gr. WP 11 CL3	0.05-0.20	0.30-0.80	0.040	0.040	0.50-1.0	1.0-1.5	0.44-0.65	-	520-690	310	30	20	197	
A 234 Gr. WP 12 CL1	0.05-0.20	0.30-0.80	0.045	0.045	0.60 Max	0.80-1.25	0.44-0.65	-	415-585	220	30	20	197	
A 234 Gr. WP 12 CL2	0.05-0.20	0.30-0.80	0.045	0.045	0.60 Max	0.80-1.25	0.44-0.65	-	485-655	275	30	20	197	
A 234 Gr. WP 22 CL1	0.05-0.15	0.30-0.60	0.040	0.040	0.50 Max	1.90-2.60	0.87-1.13	-	415-585	205	30	20	197	
A 234 Gr. WP 22 CL3	0.05-0.15	0.30-0.60	0.040	0.040	0.50 Max	1.90-2.60	0.87-1.13	-	520-690	310	30	20	197	
A 234 Gr. WP 91	0.08-0.12	0.30-0.60	0.020	0.010	0.20-0.50	8.0-9.5	0.85-1.05	0.40 Max	585-760	415	20	-	248	Va%=0.18-0.25, Cb%=0.06-0.10, N%=0.03-0.07, Al%=0.04 Max

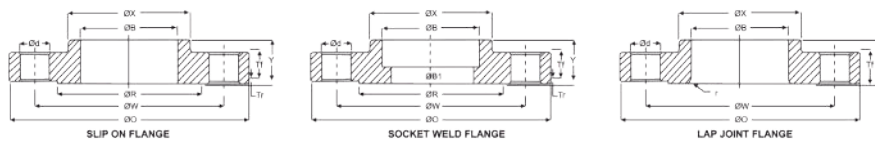
BUTT WELDING FITTING ASTM

Chemical composition of different grades

- Elbows
- Tees
- Reducers
- Caps

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SHREE RAJ STEELS

ASME B 16.5 - 2009 - Class 150 Flanges

Nominal Pipe Size		Flange Diameter	Flange Thickness		Hub Dia		Bore		Length Through Hub				Radius - LJ	Thread Length THRD	Counter Bore THRD	Depth of Socket SW	Raised Face			Drilling	
			SO, SW, WN, BL, THRD	LJ	SO, SW, LJ, WN, THRD	Bewel end Dia- WN	SO	LJ	WN, LJ	SO, SW, THRD	LJ	WN					Dia	Thickness	PCD	Hole Dia	No. of Holes
NPS	O	Tf	Tf	X	Ah	B	B	B1	Y	Y	Y	r	T	Q	D	R	Tr	W	d	n	
½	15	90	9.6	11.2	30	21.3	22.2	22.9	15.8	16	16	48	3	16	—	10	34.9	2	60.3	15.9	4
¾	20	100	11.2	12.7	38	26.7	27.7	28.2	20.9	16	16	53	3	16	—	11	42.9	2	69.9	15.9	4
1	25	110	12.7	14.3	49	33.4	34.5	34.9	26.6	18	17	56	3	18	—	13	50.8	2	79.4	15.9	4
1 ¼	30	115	14.3	15.9	59	42.2	43.2	43.7	35.1	21	21	58	5	21	—	14	63.5	2	88.9	15.9	4
1 ½	40	125	15.9	17.5	65	48.3	49.5	50	40.9	23	22	62	6	23	—	16	73	2	98.4	15.9	4
2	50	150	17.5	19.1	78	60.3	61.9	62.5	52.5	26	25	64	8	26	—	17	92.1	2	120.7	19	4
2 ½	60	180	19.1	22.3	90	73	74.6	75.4	62.7	29	29	70	8	29	—	19	104.8	2	139.7	19	4
3	80	190	22.3	22.9	108	88.9	90.7	91.4	77.9	31	30	70	10	31	—	21	127	2	152.4	19	4
3 ½	90	215	22.3	22.9	122	101.6	103.4	104.1	90.1	32	32	72	10	32	—	22	139.7	2	177.8	19	8
4	100	230	22.3	22.9	135	114.3	116.1	116.8	102.3	34	33	77	11	34	—	24	157.2	2	190.5	19	8
5	125	255	22.3	22.9	164	141.3	143.8	144.4	128.2	37	36	89	11	37	—	24	185.7	2	215.9	22.2	8
6	150	280	22.9	25.4	192	168.3	170.7	171.4	154.1	40	40	89	13	40	—	27	215.9	2	241.3	22.2	8
8	200	345	27	28.6	246	219.1	221.5	222.2	202.7	45	44	102	13	45	—	32	269.9	2	298.5	22.2	8
10	250	405	28.6	30.2	305	273	276.2	277.4	254.6	50	49	102	13	50	—	33	323.8	2	362	25.4	12
12	300	485	30.2	31.8	365	323.8	327	328.2	304.8	56	56	115	13	56	—	40	381	2	431.8	25.4	12
14	350	535	33.4	35	400	355.6	359.2	360.2	336.5	58	79	127	13	58	—	41	412.8	2	476.3	28.6	12
16	400	595	35	36.6	457	406.4	410.5	411.2	387.3	64	87	127	13	64	—	44	469.9	2	539.8	28.6	16
18	450	635	38.1	39.7	505	457	461.8	462.2	438.1	69	97	140	13	69	—	49	533.4	2	577.9	31.7	16
20	500	700	41.3	42.9	559	508	513.1	514.4	488.9	73	103	145	13	73	—	54	584.2	2	635	31.7	20
24	600	815	46.1	47.7	663	610	616	616	590.5	83	111	153	13	83	—	64	692.2	2	749.3	34.9	20

ASME B 16.5 - 2009 - Class 300 Flanges

1/2	15	95	12.7	14.3	38	21.3	22.2	22.9	15.8	23	22	53	3	16	23.6	10	34.9	2	66.7	15.9	4
3/4	20	115	14.3	15.9	48	26.7	27.7	28.2	20.9	26	25	58	3	16	29	11	42.9	2	82.6	19	4
1	25	125	15.9	17.5	54	33.4	34.5	34.9	26.6	27	27	62	3	18	35.8	13	50.8	2	88.9	19	4
1 1/4	30	135	17.5	19.1	64	42.2	43.2	43.7	35.1	27	27	66	5	21	44.4	14	63.5	2	98.4	19	4
1 1/2	40	155	19.1	20.7	70	48.3	49.5	50	40.9	31	30	69	6	23	50.3	16	73	2	114.3	22.2	4
2	50	165	20.7	22.3	84	60.3	61.9	62.5	52.5	34	33	70	8	29	63.5	17	92.1	2	127	19	8
2 1/2	60	190	23.9	25.4	100	73	74.6	75.4	62.7	39	38	77	8	32	76.2	19	104.8	2	149.2	22.2	8
3	80	210	27	28.6	117	88.9	90.7	91.4	77.9	43	43	80	10	32	92.2	21	127	2	168.3	22.2	8
3 1/2	90	230	28.6	30.2	133	101.6	103.4	104.1	90.1	45	44	81	10	37	104.9	22	139.7	2	184.2	22.2	8
4	100	255	30.2	31.8	146	114.3	116.1	116.8	102.3	48	48	86	11	37	117.6	24	157.2	2	200	22.2	8
5	125	280	33.4	35	178	141.3	143.8	144.4	128.2	51	51	99	11	43	144.4	24	185.7	2	235	22.2	8
6	150	320	35	36.6	206	168.3	170.7	171.4	154.1	53	52	99	13	47	171.4	27	215.9	2	269.9	22.2	12
8	200	380	39.7	41.3	260	219.1	221.5	222.2	202.7	62	62	112	13	51	222.2	32	269.9	2	330.2	25.4	12
10	250	445	46.1	47.7	321	273	276.2	277.4	254.6	67	95	118	13	56	276.2	33	323.8	2	387.4	28.6	16
12	300	520	49.3	50.8	375	323.8	327	328.2	304.8	73	102	131	13	61	328.6	40	381	2	450.8	31.7	16
14	350	585	52.4	54	425	355.6	359.2	360.2	336.5	77	111	143	13	64	360.4	41	412.8	2	514.4	31.7	20
16	400	650	55.6	57.2	483	406.4	410.5	411.2	387.3	83	121	146	13	69	411.2	44	469.9	2	571.5	34.9	20
18	450	710	58.8	60.4	533	457	461.8	462.3	438.1	89	130	159	13	70	462	49	533.4	2	628.6	34.9	24
20	500	775	62	63.5	587	508	513.1	514.4	488.9	96	140	162	13	74	512.8	54	584.2	2	685.8	34.9	24
24	600	915	68.3	69.9	702	610	616	616	590.5	107	152	169	13	83	614.4	64	692.2	2	812.8	41.3	24

Flanges

(Type):

Weld Neck Flange, Slip-on Flange, Plate Flange, Blind Flange, Socket Weld Flange or customised

(Face Finish):

American Series- Raised Face(RF), Flat Face(FF), Tongue(T), Groove(G), Female(F), Male(M), Ring Joints Face(RJ), Ring Type Joint(RTJ)

European Series- Type A(Flat Face), Type B(Raised Face), Type C(Tongue), Type D(Groove), Type E(Spigot), Type F(Recess), Type G(O-Ring Spigot), Type H(O-Ring Groove)

(Size):

1/2"-60" (DN15-DN1500)

(Pressure):

PN 2.5 - PN 400 bar, Class 150- Class 2500

(Standard):

ANSI B16.5, ASME B16.47, SERIES A/B, B16.48, API 590, API 605 DIN 2527, 2565, 2573, 2631, 2633/2637, 2641 JIS B2220, B2261, B8210, KSD3576, KSB6216, KSB1511-EN 1092, BS4504, ISO 7005-1, UNI Series

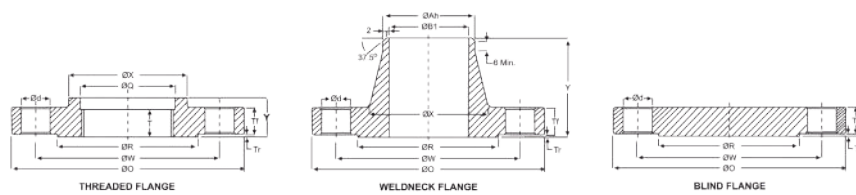
(Grade):

- Carbon Steel- A234, A105, S235JR
- Stainless Steel- ASTM A182 F304/304L, F316/316L, 310S, 317, 347, 904L
- Alloy Steel- ASTM A182 F1, F5a, F9, F11, F12, F22, F91
- Monel, Inconel, Hastelloy

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SHREE RAJ STEELS

ASME B 16.5 - 2009 - Class 600 Flanges

Nominal Pipe Size		Flange Diameter	Flange Thickness		Hub Dia		Bore		Length Through Hub					Radius - LJ	Thread Length THRD	Counter Bore THRD	Depth of Socket SW	Raised Face		Drilling	
			SO, SW, WN, BL, THRD	LJ	SO, SW, LJ, WN, THRD	Bewel end Dia- WN	SO	LJ	WN, LJ	SO, SW, THRD	LJ	WN	Dia					Thickness	PCD	Hole Dia	No. of Hole
			NPS	O	Tf	Tf	X	Ah	B	B	B1	Y	Y					Y	r	T	Q
½	15	95	14.3	14.3	38	21.3	22.2	22.9	15.8	29	22	59	3	16	23.6	10	34.9	7	66.7	15.9	4
¾	20	115	15.9	15.9	48	26.7	27.7	28.2	20.9	32	25	64	3	16	29	11	42.9	7	82.6	19	4
1	25	125	17.5	17.5	54	33.4	34.5	24.9	26.6	34	27	69	3	18	35.8	13	50.8	7	88.9	19	4
1 ¼	30	135	20.7	20.7	64	42.2	42.2	43.7	35.1	36	29	74	5	21	44.4	14	63.5	7	98.4	19	4
1 ½	40	155	22.3	22.3	70	48.3	49.5	50	40.9	39	32	77.5	6	23	50.6	16	73	7	114.3	22.2	4
2	50	165	25.4	25.4	84	60.3	61.9	62.5	52.5	44	37	80	8	29	63.5	17	92.1	7	127	19	8
2 ½	60	190	28.6	28.6	100	73	74.6	75.4	62.7	48	41	86	8	32	76.2	19	104.8	7	149.2	22.2	8
3	80	210	31.8	31.8	117	88.9	90.7	91.4	77.9	53	46	90	10	35	92.2	21	127	7	149.2	22.2	8
3 ½	90	230	35	35	133	101.6	103.4	104.1	90.1	56	49	93	10	40	104.9	22	139.7	7	184.2	25.4	8
4	100	275	38.1	38.1	152	114.3	116.1	116.8	102.3	61	54	109	11	42	117.6	24	157.2	7	215.9	25.4	8
5	125	330	44.5	44.5	189	141.3	143.8	144.4	128.2	67	60	121	11	48	144.4	24	185.7	7	266.7	28.6	8
6	150	355	47.7	47.7	222	168.3	170.7	171.4	154.1	74	67	124	13	51	171.4	27	215.9	7	292.1	28.6	12
8	200	420	55.6	55.6	273	219.1	221.5	222.2	202.7	83	76	140	13	58	222.2	32	269.9	7	349.2	31.7	12
10	250	510	63.5	63.5	343	273	276.2	277.4	254.6	93	111	159	13	66	276.2	33	323.8	7	431.8	34.9	16
12	300	560	66.7	66.7	400	323.8	327	328.2	304.8	99	117	163	13	70	328.6	40	381	7	489	34.9	20
14	350	605	69.9	69.9	432	355.6	359.2	360.2	336.5	101	127	172	13	74	360.4	41	412.8	7	527	38.1	20
16	400	685	76.2	76.2	495	406.4	410.5	411.2	387.3	113	140	185	13	78	411.2	44	469.9	7	603.2	41.3	20
18	450	745	82.6	82.6	546	457	461.8	462.3	481	124	152	191	13	80	462	49	533.4	7	654	44.4	20
20	500	815	88.9	88.9	610	508	513.1	514.4	488.9	134	165	197	13	83	512.8	54	584.2	7	723.9	44.4	24
24	600	940	101.6	101.6	718	610	616	616	590.5	147	184	210	13	93	614.4	64	692.2	7	838.2	50.8	24

ASME B 16.5 - 2009 - Class 900 Flanges

1/2	15	120	22.3	22.3	38	21.3	22.2	22.9	15.8	39	32	67	3	23	23.6	10	34.9	7	82.6	22.2	4
3/4	20	130	25.4	25.4	44	26.7	27.7	28.2	20.9	42	35	77	3	26	29	11	42.9	7	88.9	22.2	4
1	25	150	28.6	28.6	52	33.4	34.5	34.9	26.6	48	41	80	3	29	35.8	13	50.8	7	101.6	25.4	4
1 1/4	30	160	28.6	28.6	64	42.2	43.2	43.7	35.1	48	41	80	5	31	44.4	14	63.5	7	111.1	25.4	4
1 1/2	40	180	31.8	31.8	70	48.3	49.5	50	40.9	51	44	90	6	32	50.3	16	73	7	123.8	28.6	4
2	50	215	38.1	38.1	105	60.3	61.9	62.5	52.5	64	57	109	8	39	63.5	17	92.1	7	165.1	25.4	8
2 1/2	60	245	41.3	41.3	124	73	74.6	75.4	62.7	71	64	112	8	48	76.2	19	104.8	7	190.5	28.6	8
3	80	240	38.1	38.1	127	88.9	90.7	91.4	77.9	61	54	109	10	42	92.2	21	127	7	190.5	25.4	8
4	100	290	44.5	44.5	159	114.3	116.1	116.8	102.3	77	70	121	11	48	117.6	24	157.2	7	235	31.7	8
5	125	350	50.8	50.8	190	141.3	143.8	144.4	128.2	86	79	134	11	54	144.4	24	185.7	7	279.4	34.9	8
6	150	380	55.6	55.6	235	168.3	170.7	171.4	154.1	93	86	147	13	58	171.4	27	215.9	7	317.5	31.7	12
8	200	470	63.5	63.5	298	219.1	221.5	222.2	202.7	109	114	169	13	64	222.2	32	269.9	7	393.7	38.1	12
10	250	545	69.9	69.9	368	273	276.2	277.4	254.6	115	127	191	13	72	276.2	33	323.8	7	469.9	39.1	16
12	300	610	79.4	79.4	419	323.8	327	328.2	304.8	124	143	207	13	77	328.6	40	381	7	533.4	38.1	20
14	350	640	85.8	85.8	451	355.6	359.2	360.2	336.5	137	156	220	13	83	360.4	41	412.8	7	558.8	41.3	20
16	400	705	88.9	88.9	508	406.4	410.5	411.2	387.3	140	165	223	13	86	411.2	44	469.9	7	616	44.4	20
18	450	785	101.6	101.6	565	457	461.8	462.3	438.1	159	190	236	13	89	462	49	533.4	7	685.8	50.8	20
20	500	855	108	108	622	508	513.1	514.4	488.9	166	210	255	13	93	512.8	54	584.2	7	749.3	54	20
24	600	1040	139.7	139.7	749	610	616	616	590.5	210	267	299	13	102	614.4	64	692.2	7	90.7	66.7	20

Flanges

(Type):

Weld Neck Flange, Slip-on Flange, Plate Flange, Blind Flange, Socket Weld Flange or customised

(Face Finish):

American Series- Raised Face(RF), Flat Face(FF), Tongue(T), Groove(G), Female(F), Male(M), Ring Joints Face(RJ), Ring Type Joint(RTJ)

European Series- Type A(Flat Face), Type B(Raised Face), Type C(Tongue), Type D(Groove), Type E(Spigot), Type F(Recess), Type G(O-Ring Spigot), Type H(O-Ring Groove)

(Size):

1/2"-60" (DN15-DN1500)

(Pressure):

PN 2.5 - PN 400 bar, Class 150- Class 2500

(Standard):

ANSI B16.5, ASME B16.47, SERIES A/B, B16.48, API 590, API 605 DIN 2527, 2565, 2573, 2631, 2633/2637, 2641 JIS B2220, B2261, B8210, KSD3576, KSB6216, KSB1511-EN 1092, BS4504, ISO 7005-1, UNI Series

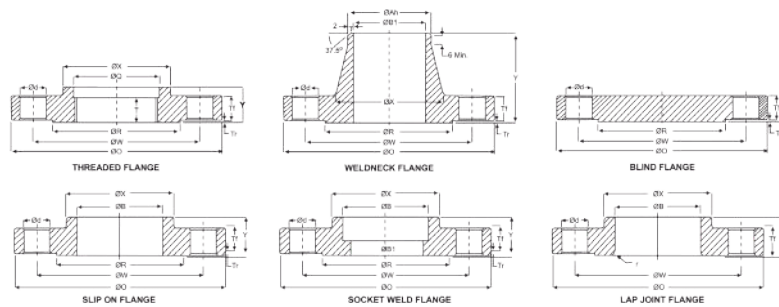
(Grade):

- Carbon Steel- A234, A105, S235JR
- Stainless Steel- ASTM A182 F304/304L, F316/316L, 310S, 317, 347, 904L
- Alloy Steel- ASTM A182 F1, F5a, F9, F11, F12, F22, F91
- Monel, Inconel, Hastelloy

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SHREE RAJ STEELS

Flanges

(Type):

Weld Neck Flange, Slip-on Flange, Plate Flange, Blind Flange, Socket Weld Flange or customised

(Face Finish):

American Series- Raised Face(RF), Flat Face(FF), Tongue(T), Groove(G), Female(F), Male(M), Ring Joints Face(RJ), Ring Type Joint(RTJ)

European Series- Type A(Flat Face), Type B(Raised Face), Type C(Tongue), Type D(Groove), Type E(Spigot), Type F(Recess), Type G(O-Ring Spigot), Type H(O-Ring Groove)

(Size):

1/2"-60" (DN15-DN1500)

(Pressure):

PN 2.5 - PN 400 bar, Class 150- Class 2500

(Standard):

ANSI B16.5, ASME B16.47, SERIES A/B, B16.48, API 590, API 605 DIN 2527, 2565, 2573, 2631, 2633/2637, 2641 JIS B2220, B2261, B8210, KSD3576, KSB6216, KSB1511-EN 1092, BS4504, ISO 7005-1, UNI Series

(Grade):

- Carbon Steel- A234, A105, S235JR
- Stainless Steel- ASTM A182 F304/304L, F316/316L, 310S, 317, 347, 904L
- Alloy Steel- ASTM A182 F1, F5a, F9, F11, F12, F22, F91
- Monel, Inconel, Hastelloy

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ASME B 16.5 - 2009 - Class 1500 Flanges

Nominal Pipe Size		Flange Diameter	Flange Thickness		Hub Dia		Bore		Length Through Hub				Radius - LJ	Thread Length THRD	Counter Bore THRD	Depth of Socket SW	Raised Face		Drilling		
			SO, SW, WN, BL, THRD	LJ	SO, SW, LJ, WN, THRD	Bewel end Dia-WN	SO	LJ	WN, LJ	SO, SW, THRD	LJ	WN					Dia	Thickness	PCD	Hole Dia	No. of Hole
NPS	O	Tf	Tf	X	Ah	B	B	B1	Y	Y	Y	r	T	Q	D	R	Tr	W	d	n	
½	15	120	22.3	22.3	38	21.3	22.2	22.9	15.8	39	32	67	3	23	23.6	10	34.9	7	82.6	22.2	4
¾	20	130	25.4	25.4	44	26.7	27.7	28.2	20.9	42	35	77	3	26	29	11	42.9	7	88.9	22.2	4
1	25	150	28.6	28.6	52	33.4	34.5	34.9	26.6	48	41	80	3	29	35.8	13	50.8	7	101.6	25.4	4
1 ¼	30	160	28.6	28.6	64	42.2	43.2	43.7	35.1	48	41	80	5	31	44.4	14	63.5	7	111.1	25.4	4
1 ½	40	180	31.8	31.8	70	48.3	49.5	50	40.9	51	44	90	6	32	50.6	16	73	7	123.8	28.6	4
2	50	215	38.1	38.1	105	60.3	61.9	62.5	52.5	64	57	109	8	39	63.5	17	92.1	7	165.1	25.4	8
2 ½	60	245	41.3	41.3	124	73	74.6	75.4	62.7	71	64	112	8	48	76.2	19	104.8	7	190.5	28.6	8
3	80	265	47.7	47.7	133	88.9	90.7	91.4	77.9	80	73	124	10	-	—	21	127	7	203.2	31.7	8
4	100	310	54	54	162	114.3	116.1	116.8	102.3	97	90	131	11	-	—	24	157.2	7	241.3	34.9	8
5	125	375	73.1	73.1	197	141.3	143.8	144.4	128.2	112	105	163	11	-	—	24	185.7	7	292.1	41.3	8
6	150	395	82.6	82.6	229	168.3	170.7	171.4	154.1	126	119	178	13	-	—	27	215.9	7	317.5	38.1	12
8	200	485	92.1	92.1	292	219.1	221.5	222.2	202.7	150	143	220	13	-	—	32	269.9	7	393.7	44.4	12
10	250	585	108	108	368	273	276.2	277.4	254.6	185	178	261	13	-	—	33	323.8	7	482.6	50.8	12
12	300	675	123.9	123.9	451	323.2	327	328.2	304.8	226	219	290	13	-	—	40	381	7	571.5	54	12
14	350	750	133.4	133.4	495	355.6	359.2	360.2	336.5	248	241	305	13	-	—	41	412.8	7	635	60.3	16
16	400	825	146.1	146.1	552	406.4	410.5	411.2	387.3	267	260	318	13	-	—	44	469.9	7	704.8	66.7	16
18	450	915	162	162	597	457	461.8	462.3	438.1	283	276	334	13	-	—	49	533.4	7	774.7	73	16
20	500	985	177.8	177.8	641	508	513.1	514.4	488.9	299	292	363	13	-	—	54	584.2	7	831.8	79.4	16
24	600	1170	203.2	203.2	762	610	616	616	590.5	337	330	413	13	-	—	64	692.2	7	990.6	92.1	16

ASME B 16.5 - 2009 - Class 2500 Flanges

1/2	15	135	30.2	30.2	423	21.3	22.2	22.9	15.8	47	40	80	3	29	23.6	10	34.9	7	88.9	22.2	4
3/4	20	140	31.8	31.8	51	26.7	27.7	28.2	20.9	50	43	86	3	32	29	11	42.9	7	95.2	22.2	4
1	25	160	35	35	57	33.4	34.5	34.9	26.6	55	48	96	3	35	35.8	13	50.8	7	108	25.4	4
1 1/4	30	185	38.1	38.1	73	42.2	43.2	43.7	35.1	59	52	102	5	39	44.4	14	63.5	7	130.2	28.6	4
1 1/2	40	205	44.5	44.5	79	48.3	49.5	50	40.9	67	60	118	6	45	50.6	16	73	7	146	31.7	4
2	50	235	50.9	50.9	95	60.3	61.9	62.5	52.5	77	70	134	8	51	63.5	17	92.1	7	171.4	28.6	8
2 1/2	60	265	57.2	57.2	114	73	74.6	75.4	62.7	86	79	150	8	58	76.2	19	104.8	7	196.8	31.7	8
3	80	305	66.7	66.7	133	88.9	90.7	91.4	77.9	99	92	175	10	---	---	21	127	7	228.6	34.9	8
4	100	355	76.2	76.2	165	114.3	116.1	116.8	102.3	115	108	197	11	---	---	24	157.2	7	273	41.3	8
5	125	420	92.1	92.1	203	141.3	143.8	144.4	128.2	137	130	236	11	---	---	24	185.7	7	323.8	47.6	8
6	150	485	108	108	235	168.3	170.7	171.4	154.1	159	152	280	13	---	---	27	215.9	7	368.3	54	8
8	200	550	127	127	305	219.1	221.5	222.2	202.7	185	178	325	13	---	---	32	269.9	7	438.2	54	12
10	250	675	165.1	165.1	375	273	276.2	277.4	254.6	236	229	426	13	---	---	33	323.8	7	539.8	66.7	12
12	300	760	184.2	184.2	441	323.8	327	328.2	304.8	261	254	471	13	---	---	40	381	7	619.1	73	12

DIMENSIONAL TOLERANCES OF FORGED FLANGES ANSI B 16.5

Threaded, Slipon, Lapjoint
Socket Welding & Blind

Welding Neck

Outside Diameter	O.D. is 600 or smaller O.D. over 600	±1.6 ±3.1	Outside Diameter	O.D. is 50 or smaller O.D. over 600	±1.6 ±3.1
Inside Diameter (bore)	250 and smaller 12 through 450 500 and larger	±3.1 + 0.7 + 1.6 - 1.6	Inside Diameter slip lap joint:	threaded: to standard gauge limits socket-welding: 250 and larger 300 and larger	(bore) ±0.7 ±1.6 -0.0 -0.0
Diameter of contact face	1.6 raise face 6.3 raised face; tongue & grooved male & female	±0.7 ±0.4	Diameter of counter bore	threaded 250 and smaller 300 and larger	±0.7 ±1.6 -0.0 -0.0
Diameter of hub at base	When E is 600 or smaller When E is over 600	±1.6 ±3.1	Outside diameter hub	300 and smaller 350 and larger	±2.3 -1.6 ±3.1 +0.7
Diameter hub at point of welding	125 and smaller 150 and larger	±0.7 ±4.0	Diameter of contact face	1.6 raised face 6.3 raised: tongue & grooved male & female	±0.4
Thickness	450 and smaller 500 and larger	±3.1 ±4.7	Thickness	450 and smaller 500 and larger	±3.1 ±4.1 -0.0 -0.0
Length through hub	250 and smaller 300 and larger	+ 1.6 ±3.1	Length through hub	250 and smaller 300 and larger	±1.6 ±3.1
Drilling	bolt circle bolt hole spacing	+ 1.6 ±0.7	Drilling	bolt circle bolt hole spacing	±1.6 ±0.7
	essentricity with respect to bore	0.7 max		essentricity with respect to bore	0.7 max

WELDING NECK FLANGE BORE

NPS (NB)	O.D. (MM)	Sch. 10	Sch. 20	Sch. 30	Sch. Std	Sch. 40	Sch. XS	Sch. 80	Sch. 120	Sch. 160	Sch. XXS
15	21.33	17.1	-	-	15.7	15.7	13.8	13.8	-	11.7	6.4
20	26.67	22.5	-	-	20.8	20.8	18.8	18.8	-	15.5	11.0
25	33.40	27.9	-	-	26.6	25.4	24.3	24.3	-	20.7	15.2
32	42.16	36.6	-	-	35.0	35.0	32.4	32.4	-	29.4	22.7
40	48.26	42.7	-	-	40.8	40.8	38.1	38.1	-	33.7	27.9
50	60.31	54.8	-	-	52.3	52.3	49.2	49.2	-	42.8	38.1
65	73.02	66.9	-	-	62.4	62.4	59.0	59.0	-	53.9	44.9
80	88.90	82.8	-	-	77.9	77.9	73.6	73.6	-	66.6	58.4
100	114.30	108.2	-	-	102.2	102.2	97.1	97.1	92.0	87.3	80.0
125	141.30	134.5	-	-	128.1	128.1	122.2	122.2	115.9	109.5	103.2
150	168.27	161.5	-	-	154.0	154.0	146.3	146.3	139.7	131.7	124.3
200	219.07	211.6	206.2	204.9	202.7	202.7	193.6	193.6	182.5	173.0	174.6
250	273.05	264.7	260.3	257.4	254.5	254.5	247.6	242.8	230.1	215.9	222.2
300	323.85	314.7	311.1	307.0	304.8	303.2	298.4	288.8	273.0	257.2	273.0
350	355.60	346.2	337.8	336.5	336.5	333.3	330.2	317.5	300.0	284.1	-
400	406.40	396.7	390.3	387.3	387.3	381.0	381.0	363.5	344.5	325.4	-
450	457.20	447.5	441.1	434.9	438.1	428.6	431.8	409.5	387.3	366.7	-
500	508.00	497.3	488.9	482.6	488.9	477.8	482.6	455.6	431.8	407.9	-
600	609.60	596.9	590.5	581.0	590.5	574.6	584.2	547.6	517.5	490.5	-

SHREE RAJ STEELS

Flanges

(Type):

Weld Neck Flange, Slip-on Flange, Plate Flange, Blind Flange, Socket Weld Flange or customised

(Face Finish):

American Series- Raised Face(RF), Flat Face(FF), Tongue(T), Groove(G), Female(F), Male(M), Ring Joints Face(RJ), Ring Type Joint(RTJ)

European Series- Type A(Flat Face), Type B(Raised Face), Type C(Tongue), Type D(Groove), Type E(Spigot), Type F(Recess), Type G(O-Ring Spigot), Type H(O-Ring Groove)

(Size):

1/2"-60" (DN15-DN1500)

(Pressure):

PN 2.5 - PN 400 bar, Class 150- Class 2500

(Standard):

ANSI B16.5, ASME B16.47, SERIES A/B, B16.48, API 590, API 605 DIN 2527, 2565, 2573, 2631, 2633/2637, 2641 JIS B2220, B2261, B8210, KSD3576, KSB6216, KSB1511-EN 1092, BS4504, ISO 7005-1, UNI Series

(Grade):

- Carbon Steel- A234, A105, S235JR
- Stainless Steel- ASTM A182 F304/304L, F316/316L, 310S, 317, 347, 904L
- Alloy Steel- ASTM A182 F1, F5a, F9, F11, F12, F22, F91
- Monel, Inconel, Hastelloy

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MATERIAL SPECIFICATION FOR FORGED FITTINGS & FLANGES

SHREE RAJ STEELS

SPECIFICATION (ASTM-2002)	CHEMICAL PROPERTIES								MECHANICAL PROPERTIES					OTHERS
	C%	Mn%	P% (Max)	S% (Max)	Si%	Cr%	Ni%	Mo%	U.T.S. (Min) Mpa	ELONG. (Min) %	Hardness (Max) BHN			
STAINLESS STEEL														
A 182 Gr. F 304	0.080 Max	2.00 Max	0.045	0.030	1.00 Max	18.0-20.0	8.0-11.0	-	515	205	30	50	-	-
A 182 Gr. F 304L	0.030 Max	2.00 Max	0.045	0.030	1.00 Max	18.0-20.0	8.0-13.0	-	485	170	30	50	-	-
A 182 Gr. F 304H	0.04-0.10	2.00 Max	0.045	0.030	1.00 Max	18.0-20.0	8.0-11.0	-	515	205	30	50	-	-
A 182 Gr. F 304LN	0.030 Max	2.00 Max	0.045	0.030	1.00 Max	18.0-20.0	8.0-10.5	-	515	205	30	50	-	N%=0.10-0.16
A 182 Gr. F 309H	0.04-0.10	2.00 Max	0.045	0.030	1.00 Max	22.0-24.0	12.0-15.0	-	515	205	30	50	-	-
A 182 Gr. F 310	0.25 Max	2.00 Max	0.045	0.030	1.00 Max	24.0-26.0	19.0-22.0	-	515	205	30	50	-	-
A 182 Gr. F 316	0.080 Max	2.00 Max	0.045	0.030	1.00 Max	16.0-18.0	10.0-14.0	2.0-3.0	515	205	30	50	-	-
A 182 Gr. F 316L	0.030 Max	2.00 Max	0.045	0.030	1.00 Max	16.0-18.0	10.0-15.0	2.0-3.0	485	170	30	50	-	-
A 182 Gr. F 316H	0.04-0.10	2.00 Max	0.045	0.030	1.00 Max	16.0-18.0	10.0-14.0	2.0-3.0	515	205	30	50	-	-
A 182 Gr. F 316LN	0.030 Max	2.00 Max	0.045	0.030	1.00 Max	16.0-18.0	11.0-14.0	2.0-3.0	515	205	30	50	-	N%=0.10-0.16
A 182 Gr. F 317	0.080 Max	2.00 Max	0.045	0.030	1.00 Max	18.0-20.0	11.0-15.0	3.0-4.0	515	205	30	50	-	-
A 182 Gr. F 317L	0.030 Max	2.00 Max	0.045	0.030	1.00 Max	18.0-20.0	11.0-15.0	3.0-4.0	485	170	30	50	-	-
A 182 Gr. F 321	0.080 Max	2.00 Max	0.045	0.030	1.00 Max	17.0-19.0	9.0-12.0	-	515	205	30	50	-	Ti%=(5xC)-0.70
A 182 Gr. F 321H	0.04-0.10	2.00 Max	0.045	0.030	1.00 Max	17.0-19.0	9.0-12.0	-	515	205	30	50	-	Ti%=(4xC)-0.70
A 182 Gr. F 347	0.080 Max	2.00 Max	0.045	0.030	1.00 Max	17.0-20.0	9.0-13.0	-	515	205	30	50	-	Cb%=(10xC)-1.10
A 182 Gr. F 347H	0.04-0.10	2.00 Max	0.045	0.030	1.00 Max	17.0-20.0	9.0-13.0	-	515	205	30	50	-	Cb%=(8xC)-1.10
CARBON STEEL														
A 105	0.35 Max	0.60-1.05	0.035	0.040	0.10-0.35	0.30 Max	0.40 Max	0.12 Max	485	250	22	30	187	Cu%=0.40 Max, Va %= 0.08 Max
LOW TEMPERATURE CARBON STEEL														
A 350 Gr. LF 1	0.30 Max	0.60-1.35	0.035	0.040	0.15-0.30	0.30 Max	0.40 Max	0.12 Max	415-585	205	25	38	197	Cu%=0.40Max, Cb%=0.02 Max, Va %= 0.05 Max, Impact Test =-28.9°C, J=18 Min
A 350 Gr. LF 2	0.30 Max	0.60-1.35	0.035	0.040	0.15-0.30	0.30 Max	0.40 Max	0.12 Max	485-655	250	22	30	197	Cu%=0.40Max, Co%=0.02 Max, Va %= 0.05 Max, Impact Test =-45.6°C, J=18 Min
A 350 Gr. LF 3	0.20 Max	0.90 Max	0.035	0.040	0.20-0.35	0.30 Max	3.30-3.70	0.12 Max	485-655	260	22	35	197	Cu%=0.40Max, Co%=0.02 Max, Va %= 0.03 Max, Impact Test =-101°C, J=20 Min
ALLOY STEEL														
A 182 Gr. F 1	0.28 max	0.60-0.90	0.045	0.045	0.15-0.35	-	-	0.44-0.65	485	275	20	30	143-192	-
A 182 Gr. F 2	0.05-0.21	0.30-0.80	0.040	0.040	0.10-0.60	0.50-0.81	-	0.44-.65	485	275	20	30	143-192	-
A 182 Gr. F 5	0.15 max	0.30-0.60	0.030	0.030	0.50 Max	4.0-6.0	0.5 Max	0.44-0.65	485	275	20	35	143-217	-
A 182 Gr. F 9	0.15 max	0.30-0.60	0.030	0.030	0.50-1.00	8.0-10.0	-	0.90-1.10	585	380	20	40	179-217	-
A 182 Gr. F 11 CL1	0.05-0.15	0.30-0.60	0.030	0.030	0.50-1.00	1.0-1.50	-	0.44-0.65	415	205	20	45	121-174	-
A 182 Gr. F 11 CL2	0.10-0.20	0.30-0.80	0.040	0.040	0.50-1.0	1.0-1.50	-	0.40-0.65	485	275	20	30	143-207	-
A 182 Gr. F 11 CL3	0.10-0.20	0.30-0.80	0.040	0.040	0.50-1.0	1.0-1.50	-	0.44-0.65	515	310	20	30	156-207	-
A 182 Gr. F 12 CL1	0.05-0.15	0.30-0.60	0.045	0.045	0.50 Max	0.80-1.25	-	0.44-0.65	415	220	20	45	121-174	-
A 182 Gr. F 12 CL2	0.10-0.20	0.30-0.80	0.040	0.040	0.10-0.60	0.80-1.25	-	0.44-0.65	485	275	20	30	143-207	-
A 182 Gr. F 22 CL1	0.05-0.15	0.30-0.60	0.040	0.040	0.50 Max	2.0-2.5	-	0.87-1.13	415	205	20	35	170	-
A 182 Gr. F 22 CL3	0.05-0.15	0.30-0.60	0.040	0.040	0.50 Max	2.0-2.50	-	0.87-1.13	515	310	20	30	156-207	-
A 182 Gr. F 91	0.08-0.12	0.30-0.60	0.020	0.010	0.20-0.50	8.0-9.5	0.40 Max	0.85-1.05	585	415	20	40	248	Cb%=0.06-0.10, N%=0.03-0.07, Va %= 0.18-0.25

Chemical Composition for Flanges

- Weld Neck Flange
- Slip-on Flange
- Plate Flange
- Blind Flange
- Socket Weld Flange or customised

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Notes



SHREE RAJ STEELS

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.



LOOKING TO THE FUTURE, SWELL WITH PRIDE AND HOPE

In the day of rising wind, the roc flies upward the wind. To have the bright future like the roc, only with high aspirations is not enough, the "capital" of flying is more important.

What is the meaning of "capital"?

It is the endowed gift, an internal spirit to keep surpassing by many years encourage. After practicing thousands of times of flying, can the eagle be soaring freely with sturdy wings.

Today, SRS has grown up to be the giant among electronic Pipe fittings indeustry in China. The SRS brand, made by our efforts with devoted attention in the past 20 years, is coming to be new SRS's "capital" of soaring to fight in the welkin unceasingly with its unique brand idea and remarkable brand value.



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