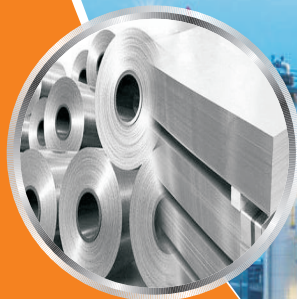


Bhagwanaram Bishnoi 9869506791
Sanjay Bishnoi 9833499592



POPULAR METAL INDIA



Driving Project
Through Steel

E-mail : popularmetalindia@gmail.com / sales@popularmetalindia.com

Website : www.popularmetalindia.com

COMPANY PROFILE

COMPANY NAME	: M/s. POPULAR METAL INDIA
CONTACT PERSON	: Bhagwanaram Bishnoi - 9869506791 Sanjay Bishnoi - 9833499592
OFFICE	: Tel.: 022-6743 6504
STATUS OF FIRM	: PROPRIETORSHIP
REGD. OFFICE	: 107/111, Matka Bldg., Off. No. 38, 3rd Floor, 3rd Kumbharwada, Dr. M.G. Mahimtura Marg, Mumbai - 400004.
NATURE OF BUSINESS	: Manufacturers of Pipe Fitting & Flanges
DATE OF ESTABLISHMENT	: 01/04/2012
E-MAIL	: popularmetalindia@gmail.com sales@popularmetalindia.com
WEBSITE	: www.popularmetalindia.com
PAN No.	: AGQPB1225J
GSTIN	: 27AGQPB1225J1ZI
YEARLY TURN OVER	: 10 to 12 CR
ITEM IMPORTED/STOCKED	: AS PER OUR STOCK LIST
TESTING FACILITY	: GOVT. APPROVED LAB GOVT. APPROVED NABL LAB REPUTED LAB
ISO CERTIFIED	: AN ISO 9001 : 2015 (QMS)



REQUEST TO BUSINESS ALLIANCES

Our Company **POPULAR METAL INDIA** was established in the year and is primarily engaged in Stockist & Suppliers, Importers & Exporters of Stainless Steel, Alloy Steel, Carbon Steel, Pipes & Tubes, Sheet, Plates, Bars and Largest manufacturer of Pipe Fittings.



As National & International Standard like ASTM, BS, IS, DIN, ASME, ANSI, MSS Etc. Over a decade of progress have consistently made us realize that more than products, it is understanding the client's requirement and giving maximum services to the customer is what makes us stand apart from others.

PIPES & TUBES

Size	: 1" NB TO 36 NB
Thickness	: SCH 10 TO SCH .XXS
Carbon Steel Grade	: ASTM A 106 CR.B
Stainless Steel Grade	: ASTM A 312 TP 304, 304L, 316, 316L, 316H, 317, 317L 321, 347H, 310, 310S, 904L
Alloy Steel Grade	: ASTM A 335 CR. P5, P11, P12, P22, P91/ ASTM A 213 GR.T11, T12, T22, T91

PIPE FITTINGS & FLANGES

Size	: 1" NB TO 36 NB.
Thickness	: SCH 10 TO SCH XXS.
Stainless Steel Grade	: ASTM A 403, ASTM A182 304, 304L, 316, 316L, 316H, 317, 317L 321, 347H, 310, 310S, 904L.
Carbon Steel Grade	: ASTM A 234 GR.WPB, A105.
Alloy Steel Grade	: ASTM A234 GR.WP P5, P11, P12, P22, P91.

SHEET PLATE & COIL

Thickness	: 1 MM TO 100 MM.
Size	: 1000 1250 1500MM X 2000 / 2500 / 5000 / 6000 MM LENGTH. / COIL.
Stainless Steel Grade	: ASTM 240 TP 304, 304L, 316, 316L, 316H, 317, 317L, 321, 347H, 310, 310S, 904L.
Alloy Steel Grade	: P5, P11, P12, P22, P91..

Each of our department's right from procurement, production, inventory, market, sales and services are fully atomized for a better supply chain management, so as to offer the best product quality and prompt service to our clients. Along with technological equipment, manpower is also given special attention. All our professionals are highly dedicated and committed to their client's requirements.

Our team of workers starves to provide quality service to you according to your specification. Over the years we have supplied & export to Many Industries in Prestigious Projects, Maintenance & In Shutdown, in Industries like * Chemical * Petrochemical * Refineries * Fertilizers * Power Plant * Nuclear Power * Oil & Gas * font Paper * Breweries * Cement * Sugar * Oil Mills Mining * Construction * Shipbuilding * Steel Plant* Offshore Defense * Ports" Railways * Engineering Co. * Government Org.

We are registered as approved Vendors with many reputed organizations such as L&T, GDC, NRL, BARC, BHEL, NPC, IFFCO, KRIBCO, MSEB, BHPVL, GACL, and KCIL Etc. Under Third Party Inspection ICB, DNV, Baxcounsel, BV, IQC, NPCL, BHEL, Uhde, L&T, BARC, Alstom Etc. We value from a single piece of requirement to large turnkey projects to give 'MAXIMUM' service to all.

Material can supplied & Exports with Manufacturers Test Certificate / Laboratory Test Certificate from Government Approved Laboratory & with I BR Test Certificate under Third Party Inspection.

Testing Facilities available from Laboratory like * Chemical * Mechanical & Physical * Micro * Macro * IGC * (Pr. A, B, C, E) NACE * Ultra Hardness Impact * Hydrostatic Flattening * Heat Treatment * Bends Test * X-Ray * Spectro & Other Miscellaneous Test.

Priority and Special Attention is given for urgent requirement to delivery the material.

We invite International Manufacturers / Dealers for Liaison work in Indian Market and Indenting work for Indian Company in International Market.

We will highly appreciate if you kindly register our name in your approved vendors list and favour us your enquiries as and when requirement arise.

We will highly obliged if you kindly favour us with your Trial Order
Thanking You and Looking Forward For Your Earliest Favorable Reply
Yours faithfully,
For **POPULAR METAL INDIA**



PRODUCT RANGE



Pipes & Tubes

Stainless Steel : ASTM A312 TP 202/304/ 304L/ 304H/ 316/ 316L/ 317/ 317L/ 321/310/ 347/ 904L etc.
Carbon Steel : ASTM A53 GR. B/ A106 GR. B/ API 5L GRADE B/ API 5L GR.X42/46/52/56/60/65/70/ Low Temperature, Carbon Steel: A333 Gr.3/Gr.6 etc.
Alloy Steel : ASTM A335 GR. P1/ P5/ P9/ P11/ P22/ P91 etc.
Nickel Alloys : Monel, Nickel, Inconel, Hastalloy, Titanium, Tantalum, Bismuth, Aluminium, High Speed Steel, 904L, Alloy 20
Duplex & Super Duplex Steel : UNS S31803, UNS S32750, UNS S32760,
Non Ferrous Metal : Copper, Brass, Bronze, Zinc, Lead etc. Types : Round , Square, Rectangular.
Size : 1/2" to 24" NB. (Seamless & Welded)
Wall Thickness : Sch. 5S to Sch. XXS



Buttweld Fittings

Stainless Steel : ASTM A403 WP 304/ 304L/ 304H/316/ 316L/ 317/ 317L/ 321/310/ 347/904L etc.
Carbon Steel : ASTM A234 WPB/A420 WPL3/A420 WPL6/ MSS-SP-75 WPHY 42/46/52/ 56/60/65/70
Alloy Steel : ASTM A234 WP1/WP5/WP9/WP11/WP22/WP91 etc.
Duplex & Super Duplex Steel : UNS S31803, UNS S32750, UNS S32760,
Others : Monel, Nickel, Inconel, Hastalloy, Copper, Brass, Bronze, Titanium, Tantalum, Bismuth, Aluminium, High Speed Steel, Zinc, Lead, 904L, Alloy 20 etc.
Types : Elbow, Tee, Reducer, Return Bends, Stub-Ends, Cap, Collar, Cross, Insert etc.
Size : 1/4" NB TO 32" NB. (Seamless & Welded)
Wall Thickness : Sch. 5S To Sch. XXS.



Forged Socketweld & Screwed Fittings

Stainless Steel : ASTM A182 F304/ 304L/ 304H/316/ 316L/ 317/ 317L/ 321/310/ 347/ 904L etc.
Carbon Steel : ASTM A105 /A694 F42/46/ 52/56/ 60/ 65/70 / A350 LF3/ A350 LF2.
Alloy Steel : ASTM A182 F1/ F5/ F9/ F11/ F22/F91 etc.
Others : Monel, Nickel, Inconel, Hastalloy, Copper, Brass, Bronze, Titanium, Tantalum, Bismuth, Aluminium, High Speed Steel, Zinc, Lead, etc.
Types : Elbow, Tee, Union, Cross, Coupling, Cap, Bushing , Plug, Swage Nipple, Welding Boss, Hexagon Nipple, Barrel Nipple, Welding Nipple, Parraler Nipple, Street Elbow, Hexagon Nut, Hose Nipple, Bend, Adapter, Insert, Weldolet, Elbowlet, Sockolet, Thredolet, Nipolet, Letrolet, etc.
Size : 1/4" NB TO 4" NB. (Socketweld & Threaded)
Class : 3000#, 6000#, 9000#.



Flanges

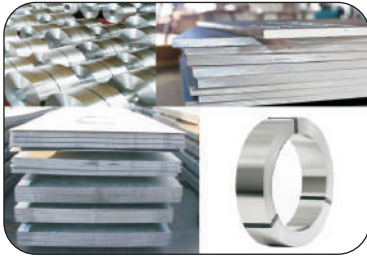
Stainless Steel : ASTM A182 F304/ 304L/ 304H/316/ 316L/ 317/ 317L/ 321/310/ 347/ 904L etc.
Carbon Steel : ASTM A105/ A694 F42/46/ 52/56/ 60/65/70/A350 LF3/A350 LF2, etc.
Alloy Steel : ASTM A182 F1/ F5/ F9/ F11/ F22/ F91 etc.
Duplex & Super Duplex Steel : U NS S31803, UNS S32750, U NS S32760, 904L, Alloy 20
Others : Monel, Nickel, Inconel, Hastalloy, Copper, Brass, Bronze, Titanium, Tantalum, Bismuth, Aluminium, High Speed Steel, Zinc, Lead, etc.
Types : Weldneck, Slipon, Blind, Socket Weld, Lap Joint, Spectacles, Ring Joint, Oriface, Long Weldneck, Deck Flange, RTJ, Flange
Size : 1/2" NB TO 24" NB.
Class : 150#, 300#, 400#, 600#, 900#, 1500# & 2500#.



Ferrule Fittings

Stainless Steel : ASTM A182 F304/ 304L/ 304H/ 316/ 316L/ 317/ 317L/ 321/310/ 347/ 904L etc.
Carbon Steel : ASTM A105 / A694 F42/46/ 52/56/ 60/65/70 /A350 LF3/ A350 LF2.
Alloy Steel : ASTM A182 F1/ F5/ F9/ F11/ F22/ F91 etc.
Duplex & Super Duplex Steel : UNS S31803, UNS S32750, UNS S32760, 904L, Alloy 20
Other : Stainless Steel, Nickel Alloys, Carbon Steel, Alloy Steel, Monel, Nickel, Inconel, Hastalloy, Copper, Brass, Bronze, Titanium, Tantalum, Bimuth, Aluminium, High Speed Steel, Zinc, Lead, Etc.
Types : Nipples, Adaptors, Crosses, Union Ball Joints, Reducing Bushing, Reducers, Pipe Caps, Couplings, Pipe Plug, Hollow Hex Plug, Elbow, Reducing Union, 90 Deg. Union Elbow, Reducing 90 Deg. Union Elbow Etc. Extender Leg 90 Deg. Union Elbow, 45 Deg. Union Elbow, Union Tee, Female Connector, Male Connector, Manifold Tee, Locator Union, Extended Run Leg Union Tee, Reducing Tee, Tribow, ATW Weld Ring, Tube Socket weld To Pipe Butt Weld, Tube Butt Weld To Tube Socket Weld, Port Connector, Etc.

PRODUCT RANGE



Sheet, Plate & Coil

Stainless Steel Coils, Sheets & Plates as per ASTM A 240 Gr. TP 202, 304, 304L, 304LN, 309, 309S, 309H, 310S, 310H, 316, 316L, 316H, 316LN, 316TI, 317, 317L, 321, 321H, 347, 347H, 348, 348H, 409, 410, 420, 430 etc.

Alloy Steel Plates as per ASTM A 387 Gr. 2, 5, 9, 11, 12 & 22 in class 1 & 2, ASTM A 204, Gr. A & B, DIN 17175 Gr. 15Mo3 & 16Mo3 with IBR Test Certificate.

Carbon Steel / Boiler Quality Plates as per IS 2062 Gr. A, B & C, IS 2002 Gr. 1 & 2, ASTM A516 Gr. 60 & 70 ASTM A515 Gr. 70.

High Nickel Alloy : Monel, Nickel, Inconel, Hastalloy, Copper, Brass, Bronze, Titanium, Tantalum, Bismuth, Aluminium, High Speed Steel, Zinc, Lead, etc.

Duplex & Super Duplex Steel : UNS S31803, UNS S32750, UNS 532760, 904L, Alloy 20

Types : Sheet, Plates, Strips, etc.



Fasteners & Nut Bolts

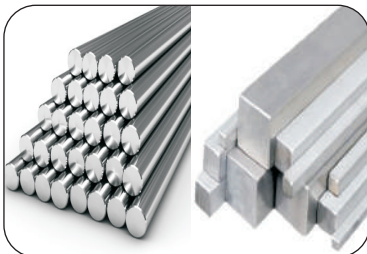
Stainless Steel : AISI 302, 304, 304L, 316, 316L, 310, 317, 321, 347, 410 420, 904L etc.

Alloy Steel : 4.6, 5.6, 6.6, 8.8, 10.9 & 12.9 'R', 'S', 'T' Conditions.

Carbon Steel : Bare Condition, Galvanized, Phosphetised, Cadmium Plated, Hot Deep Galvanized, Bloodied, Nickel Chrome Plated etc.

Non-Ferrous Metal : Copper, Brass, Aluminium, Titanium, Nichrome, Al-Bronze, Phosphorous Bronze etc.

Type : Bolts, Nuts, Washers, Anchor, Fasteners, Stud Bolts, Eye Bolt, Stud, Threaded Rod, Cotter Pin, Socket, Screw, Fine Fasteners & Spares, Foundation Fasteners etc.



Round, Square & Hex Bar

Stainless Steel : As per ASTM A276 & A479 Grade 202 / 304 / 304L / 316 / 316L / 316Ti / 317 / 317L / 321 / 310 / 347 / 410 / 416 / 420 / 430 / 440C / 904 / 303 / 17-4PH, 15-5 PH etc.

Nickel Alloys : Monel, Inconel, Hastelloy, Nickel, Titanium, Alloy 20

Duplex & Super Duplex Steel : UNS 32205, 31803, 32750, 32760,

Types : Round, Square, Rectangular.

Size : 3mm - 75 mm dia ready stock with Mill Test Certificate

Process : Cold Drawn, Annealed, Export Bright & Black

Tolerance : H9, H11



IBR FITTING

Carbon Steel : ASTM A234 WPB/A420 WPL3/A420 WPL6/MSS-SP-75 WPHY 42/46/52 / 56/60/65/70

Alloy Steel : ASTM A234 WP1/WP5/WP9/WP11/WP22/WP91 etc.

Duplex & Super Duplex Steel : UNS S31803, UNS S32750, UNS S32760,

Others : Monel, Nickel, Inconel, Hastalloy, Copper, Brass, Bronze, Titanium, Tantalum, Bismuth, Aluminium, High Speed Steel, Zinc, Lead, 904L, Alloy 20 etc.

Types : Elbow, Tee, Reducer, Return Bends, Stub-Ends, Cap, Collar, Cross, Insert etc.

Size : 1/4" NB TO 32" NB. (Seamless & Welded)

Wall Thickness : Sch. 5S To Sch. XXS.



Flexible Hose

STAINLESS STEEL : Material Grade : SS304

Size : 1/4" ID to 12" ID, **Nominal Size** : 3/4 inch

Type : Vacuum Hose Pipe

Unit Length : 12m-20m

Brand : FLEXIBLES

Pressure : 5 Bar to 60 Bar

Temperature : upto 600 Deg. C

Is It Flexible : Flexible

Application : Steam Hose, Solvent Hose, chemicals etc



BUTTWELD FITTINGS.....



Stainless Steel

: ASTM A403, WP304,304L,304H,316, 316L,317,317L,321,310,347,904L

Carbon Steel

: ASTM A234 WPB,A420 WPL3,A420 WPL6, MSS-SP-75 WPHY 42/46/52

Alloy Steel

: ASTM A234WP1,WP5,WP9,WP11,WP22

Duplex & Super Duplex

: UNS S31803, UNS S32750, UNS S32760,

Hastelloy Alloy

: ASTM B366 Hastelloy B2, Hastelloy C276, Hastelloy C22

Incoloy Alloys

: ASTM B366 Alloy 20, Alloy 800H/800HT, Alloy 825, Alloy A286

Inconel Alloys

: ASTM B366 Alloy 600, Alloy 601, Alloy 625, Alloy 718, Alloy 725,

Monel Alloys

: ASTM B366 Monel 400, Monel K500.

Size

: 1/4" NB TO 24" NB (seamless)
4" NB TO 72" NB (welded)

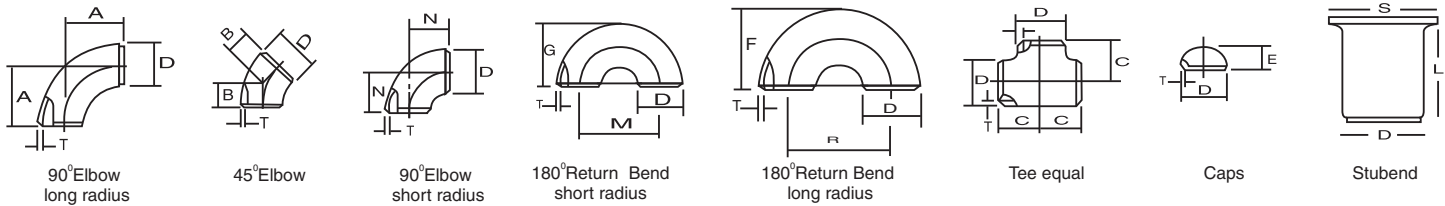
Wall Thickness

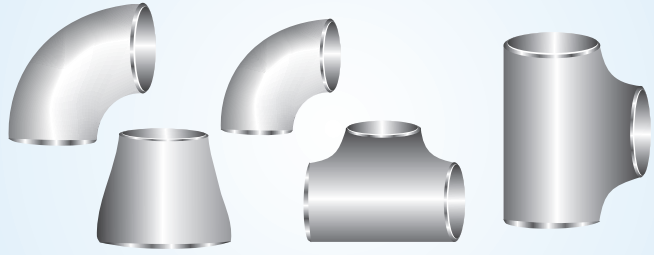
: Sch. 5s To Sch. XXS

TYPE OF BUTTWELD FITTINGS

- TEE (EQUAL /UNEQUAL)
- ELBOW (1D/1.5D/3D/5D)
- REDUCING TEE
- LONG STUB BEND
- SHORT STUB BEND
- REDUCER (CONCENTRIC/ECCENTRIC)
- RETURN BENDS
- MITER BENDS

Butt Welding Pipe Fittings Dimensional Standard ANSI B-16.9, B-16.28



Nominal Pipe Size		Outside Diameter	Center to Face				Back to Face			Center to Center			Length 'L'	
Inch.	mm	D	A	B	C	N	E	F	G	R	M	S	MSS SP43	ANSI B 16.9
1/2	15	21.3	38	16	25	—	25	48	—	76	—	34.9	50.8	76.2
3/4	20	26.7	29	11	29	—	25	43	—	57	—	42.8	50.8	76.2
1	25	33.4	38	22	38	25	38	56	41	76	51	50.8	50.8	101.6
1 1/4	32	42.2	48	25	48	32	38	70	52	95	64	63.5	50.8	101.6
1 1/2	40	48.3	57	29	57	38	38	83	62	114	76	73.0	50.8	101.6
2	50	60.3	76	35	64	51	38	106	81	152	102	92.0	63.5	152.4
2 1/2	65	73.0	95	44	76	64	38	132	100	191	127	104.8	63.5	152.4
3	80	88.9	114	51	86	76	51	159	121	229	152	127.0	63.5	152.4
3 1/2	90	101.6	133	57	95	89	64	184	140	267	178	139.7	76.2	152.4
4	100	114.3	152	64	105	102	64	210	159	305	203	157.2	76.2	152.4
5	125	141.3	190	79	124	127	76	262	197	381	254	185.7	76.2	203.2
6	150	168.3	229	95	143	152	89	313	237	457	305	215.9	88.9	203.2
8	200	219.1	305	127	178	203	102	414	313	610	406	270.0	101.6	203.2
10	250	273.1	381	159	216	254	127	518	391	762	508	324.0	127.0	254.0
12	300	323.9	457	190	254	305	152	619	467	914	610	381.0	152.4	254.0
14	350	355.6	533	222	279	356	165	711	533	1067	711	412.8	152.4	305.0
16	400	406.4	610	254	305	406	178	813	610	1219	813	470.0	152.4	305.0
18	450	457.2	686	286	343	457	203	914	686	1372	914	533.4	152.4	305.0
20	500	508.0	762	318	381	508	229	1016	762	1524	1016	584.2	152.4	305.0
22	550	559.0	838	343	419	559	254	1118	838	1676	1118	614.4	152.4	305.0
24	600	610.0	914	381	432	610	267	1219	914	1829	1219	692.2	152.4	305.0
26	650	660.0	991	406	495	660	267	—	—	—	—	—	—	—
28	700	711.0	1067	438	521	711	267	—	—	—	—	—	—	—
30	750	762.0	1143	470	559	762	267	—	—	—	—	—	—	—
32	800	813.0	1219	502	597	813	267	—	—	—	—	—	—	—
34	850	864.0	1295	533	635	864	267	—	—	—	—	—	—	—
36	900	914.0	1372	565	673	914	267							
38	950	965.0	1448	600	711	965	305							
40	1000	1016.0	1524	632	749	1016	305							
42	1050	1067.0	1600	660	762	1067	305							
44	1100	1118.0	1676	695	813	1118	343							
46	1150	1168.0	1753	727	851	1168	343							
48	1200	1219.0	1829	759	889	1219	343							



SOCKETWELD FITTINGS

Stainless Steel	: ASTM A182, F304, 304L, 304H, 316, 316L, 317, 317L, 321, 310, 347, 904L
High Nickel	: Monel, Nickel, Inconel, Hastelloy
Carbon Steel	: ASTM A105, A694 F42, A350 LF2
Alloy Steel	: ASTM A182 F1, F5, F9, F11, F22, F91
Size	: 1/4" NB TO 4" NB
Class	: 3000#, 6000#, 9000#

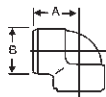
- Stainless Steel & Duplex Steel
- Nickel Alloy & Copper Nickel Alloy
- Carbon Steel & Alloy Steel

Types : Elbow, Tee, Union, Cross, Coup Bushing, Plug, Swage Nipple, Welding Boss, Hexagon Nipple, Barrel Nipple, Welding Nipple, Parallel Nipple, Street Elbow, Hexagon Nut, Hose Nipple, Bend, Adapter, Insert, Weldolet, Elbowlet, Sockolet, Thredolet, Nipolet, Letrolet, etc.

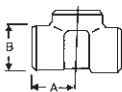


FORGED SCREWED & SOCKET WELD

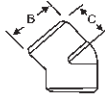
90° ELBOWS



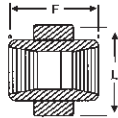
TEE



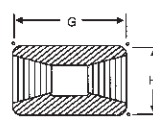
45° ELBOW



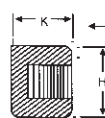
UNION



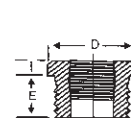
COUPLING



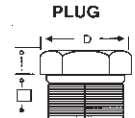
PIPE CAP



BUSHING



HEX HEAD PLUG

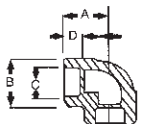


HALF COUPLING = G/2

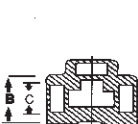
DIMENSION IN MM OF FORGED SCREWED FITTINGS TO ANSI B-16.1 | THREADED TO ASA B 2.1

NOM	PIPE	3000 L.B.S.						COMMON FACTORS						6000 L.B.S					
BORE	O.D.	A	B	C	G	H	K	D	E	F	I	J	L	A	B	C	G	H	K
1/8"	10.3	21	22	17	32	16	19	11	10	40	-	6	-	25	25	19	32	22	-
1/4"	13.7	25	25	19	35	19	25	16	11	43	3	6	32	29	33	22	35	25	27
3/8"	17.2	29	33	22	38	22	25	17.5	13	48	4	8	38	33	38	25	38	32	27
1/2"	21.3	33	38	25	48	29	32	22	15	51	5	8	46	38	46	29	48	38	33
3/4"	26.7	38	46	29	51	35	37	27	16	57	6	10	51	44	56	33	51	44	38
1"	33.4	44	56	33	60	44	41	35	19	64	6	10	60	51	62	35	60	57	43
1 1/4"	42.2	51	62	35	67	57	44	44.5	21	70	7	14	72	60	75	43	67	64	46
1 1/2"	48.3	60	75	43	79	64	44	51	21	79	8	16	80	64	84	44	79	76	48
2"	60.3	64	84	45	86	76	48	63.5	22	88	9	17	94	83	102	52	86	92	51
2 1/2"	73.02	83	102	52	92	92	60	76	27	118	10	21	122	95	121	64	92	108	64
3"	89.0	95	121	64	108	108	65	89	29	121	10	25	140	106	146	79	108	127	68
4"	114.5	114	152	79	121	140	68	117.5	32	150	13	25	180	114	152	79	121	159	75

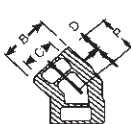
90° ELBOWS



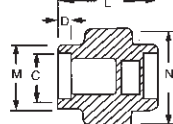
TEE



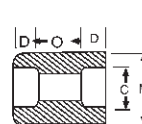
45° ELBOW



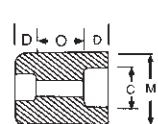
UNION



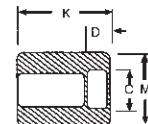
COUPLING



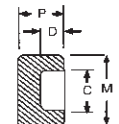
REDUCER



HALF COUPLING



CAP



SOCKET WELD FITTING TO ANSI B-16.1 |

NOM	PIPE	3000 L.B.S.						COMMON FACTORS						6000 L.B.S					
BORE	O.D.	A	B	K	J	L	M	N	P	Q	C	D	O	O	A	B	M	K	N
1/8"	10.3	22	18.5	26	16	40	17.3	32	17.5	10	10.7	10	5	8	22	22	20	25	46
1/4"	13.7	22	22	26	18	43	21.2	32	17.5	10	14.1	10	5	8	27	25	24	25	51
3/8"	17.2	25	25	26	19	48	25.4	36	19	10	17.6	10	3	9	27	28	28	26	60
1/2"	21.3	27	32	30	21	51	31	43	22	10	21.7	10	6	13	31	34	34	31	72
3/4"	26.7	34	38	36	24	57	37	50	25	13	27	13	6	13	37	42	41	35	80
1"	33.4	37	46	40	25	64	45.2	60	27	13	33.8	13	9	17	42	50	50	40	94
1 1/4"	42.2	42	56	40	29	70	55	70	30	13	42.6	13	9	17	47	59	58	41	100
1 1/2"	48.3	47	62	40	30	79	61.4	78	32	13	48.7	13	9	17	53	67	66	43	122
2"	60.3	56	75	52	37	89	75	95	38	13	61.2	16	15	23	59	84	83	55	
2 1/2"	73.02	60	92	52	48	114	91.3	125	38	16	73.8	16	14	24		102		56	
3"	89.00	76	110	52	51	127	108.8	140	44	16	89.8	16	14	24		121		58	
4"	114.50	88	137	58		150	136.9		48	19	115.5	19	14	24		152		64	

DIMENSIONS AND OTHERS SPECIFICATIONS AS PER CUSTOMERS REQUIREMENTS ARE AVAILABLE ON REQUEST



FLANGES.....

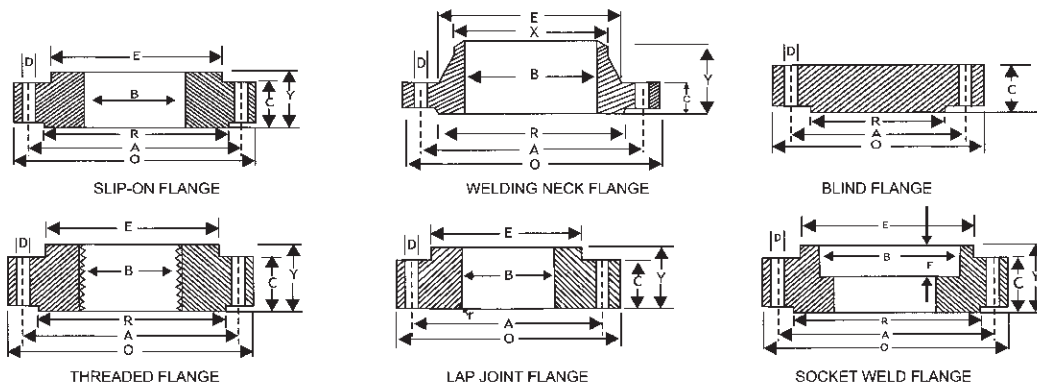
- Stainless Steel
- Carbon Steel
- Nickel Alloy & Duplex Steel

Stainless Steel	: ASTM A182, F304, 304L, 304H, 316, 316L, 317, 317L, 321, 310, 347, 904L
Carbon Steel	: ASTM A105, A694 F42, A350 LF2
Duplex & Super Duplex	: UNS S31803, UNS S32750, UNS S32760,
Hastelloy Alloy	: ASTM B564 Hastelloy B2, C276, C22
Incoloy Alloys	: ASTM B564 Alloy 20, Alloy A286 Alloy 800H/800HT, Alloy 825,
Inconel Alloys	: ASTM B564 Alloy 600, Alloy 601, Alloy 625, Alloy 718, Alloy 725,
Monel Alloys	: ASTM B564 Monel 400, Monel K500.
Alloy Steel	: ASTM A182 F1, F5, F9, F11, F22, F91
Size	: 1/2" NB TO 72" NB
Class	: 150#, 300#, 600#, 900#, 1500# & 2500#.

TYPE

- | | |
|-------------------------|------------------------------------|
| ● SLIP-ON FLANGE | ● THREADED FLANGE |
| ● LAP JOINT FLANGE | ● SOCKETWELD FLANGE |
| ● WELDNECK FLANGE | ● BLIND FLANGE (DUMMY FLANGE) |
| ● ORIFACE FLANGE | ● RTJ FLANGE |
| ● LONG WELD NECK FLANGE | ● TABLE FLANGES (D, E, F, H TABLE) |





Dimensions of Class 150 Flanges as per ANSI B 16.5

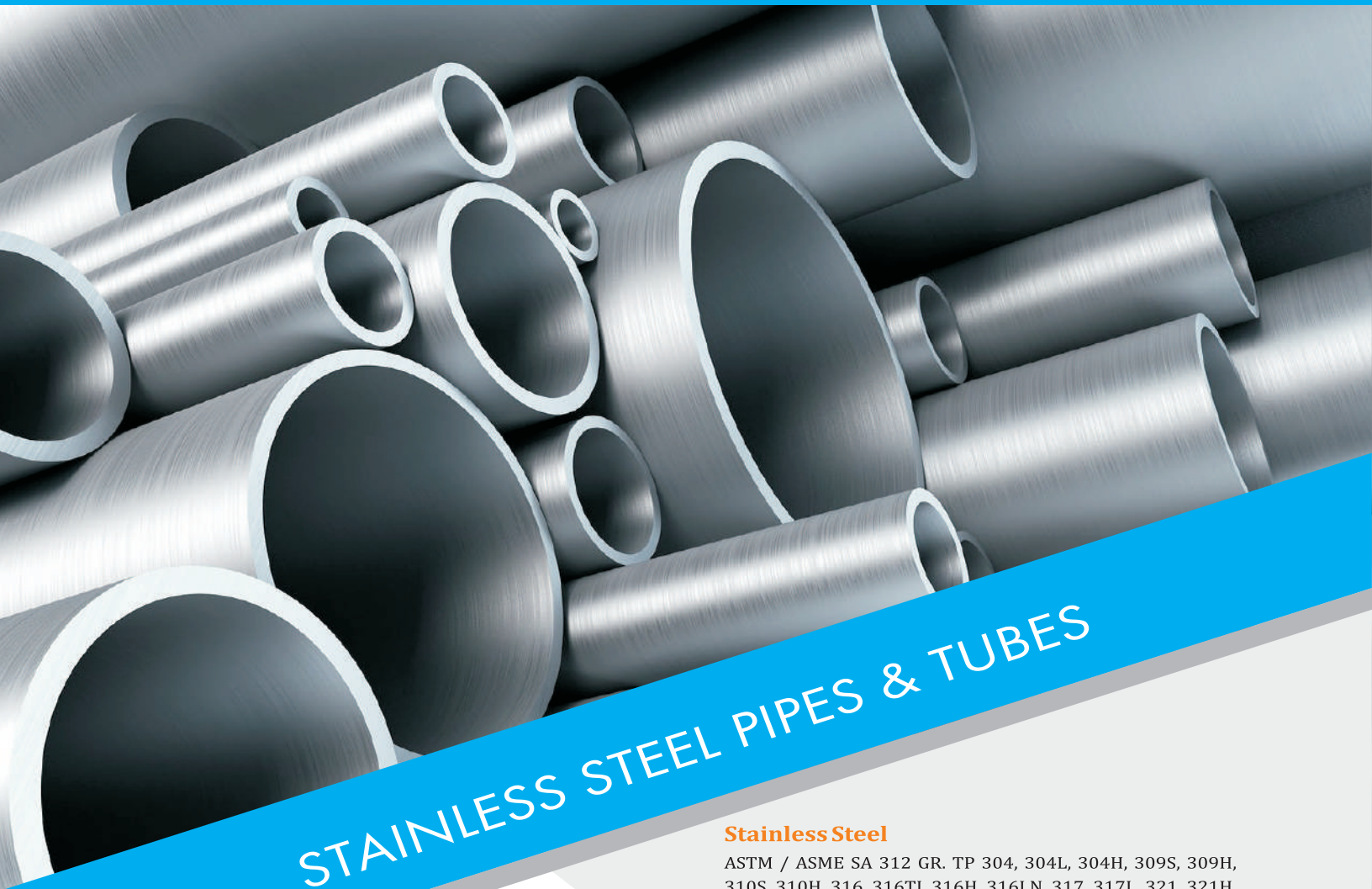
Nominal Pipe Size	Flange Dia O	Dia of Bolt Circle A	No. Of Bolt Holes D	No. Of Holes	Thk of Flange C	Dia of Hub E	Length through Hub			Dia Bore		Dia of R/F R	Depth of Socket F	Pipe Dia X
							S/O & S/W Y	W/N Y	L/J Y	S/O & S/W B	L/J B			
15	88.9	60.3	15.9	4	11.1	30.2	15.9	47.6	15.9	22.3	22.9	34.9	9.5	21.33
20	98.4	69.8	15.9	4	12.7	38.1	15.9	52.4	15.9	27.7	28.2	42.9	11.1	26.67
25	107.9	79.4	15.9	4	14.3	49.2	17.5	55.6	17.5	34.5	35.0	50.8	12.7	33.40
32	117.5	88.9	15.9	4	15.9	58.7	20.6	57.1	20.6	43.2	43.7	63.5	14.3	42.16
40	127.0	98.4	15.9	4	17.5	65.1	22.2	61.9	22.2	49.5	50.0	73.0	15.9	48.26
50	152.4	120.6	19.0	4	19.0	77.8	25.4	63.5	25.4	62.0	62.5	92.1	17.5	60.31
65	177.8	139.7	19.0	4	22.2	90.5	28.6	69.8	28.6	74.7	75.4	104.8	19.0	73.02
80	190.5	152.4	19.0	4	23.8	107.9	30.2	69.8	30.2	90.7	91.4	127.0	20.6	88.90
100	228.6	190.5	19.0	8	23.8	134.9	33.3	76.2	33.3	116.1	116.8	157.2	23.8	114.30
125	254.0	215.9	22.2	8	23.8	163.5	36.5	88.9	36.5	143.8	144.5	185.7	23.8	141.30
150	279.4	241.3	22.2	8	25.4	192.1	39.7	88.9	39.7	170.7	171.4	215.9	27.0	168.27
200	342.9	298.4	22.2	8	28.6	246.1	44.4	101.6	44.4	221.5	222.2	269.9	31.7	219.07
250	406.4	361.9	25.4	12	30.2	304.8	49.2	101.6	49.2	276.3	277.4	323.8	33.3	273.05
300	482.6	431.8	25.4	12	31.8	365.1	55.6	114.3	55.6	327.1	328.2	381.0	39.7	323.85
350	533.4	476.2	28.6	12	34.9	400.0	57.1	127.0	79.4	359.1	360.2	412.7	41.3	355.60
400	596.9	539.7	28.6	16	36.5	457.2	63.5	127.0	87.3	410.5	411.2	469.9	44.4	406.40
450	635.0	577.8	31.7	16	39.7	504.8	68.3	139.7	96.8	461.8	462.3	533.4	49.2	457.20
500	698.5	635.0	31.7	20	42.9	558.8	73.0	144.5	103.2	513.1	514.3	584.2	54.0	508.00
600	812.8	749.3	34.9	20	47.6	663.6	82.5	152.4	111.1	615.9	615.9	692.1	63.5	609.60

Dimensions of Class 300 Flanges as per ANSI B 16.5

Nominal Pipe Size	Flange Dia O	Dia of Bolt Circle A	No. Of Bolt Holes D	No. Of Holes	Thk of Flange C	Dia of Hub E	Length through Hub			Dia Bore		Dia of R/F R	Depth of Socket F	Pipe Dia X
							S/O & S/W Y	W/N Y	L/J Y	S/O & S/W B	L/J B			
15	95.2	66.7	15.9	4	14.3	38.1	22.2	52.4	22.2	22.3	22.9	34.9	9.5	21.33
20	117.5	82.5	19.0	4	15.9	47.6	25.4	57.1	25.4	27.7	28.2	42.9	11.1	26.67
25	123.8	88.9	19.0	4	17.5	54.0	27.0	61.9	27.0	34.5	35.0	50.8	12.7	33.40
32	133.3	98.4	19.0	4	19.0	63.5	27.0	65.1	27.0	43.2	43.7	63.5	14.3	42.16
40	155.6	114.3	22.2	4	20.6	69.8	30.2	68.3	30.2	49.5	50.0	73.0	15.9	48.26
50	165.1	127.0	19.0	8	22.2	84.1	33.3	69.8	33.3	62.0	62.5	92.1	17.5	60.31
65	190.5	149.2	22.2	8	25.4	100.0	38.1	76.2	38.1	74.7	75.4	104.8	19.0	73.02
80	209.5	168.3	22.2	8	28.6	117.5	42.9	79.4	42.9	90.7	91.4	127.0	20.6	88.90
100	254.0	200.0	22.2	8	31.8	146.0	47.6	85.7	47.6	116.1	116.8	157.2	23.8	114.30
125	279.4	234.9	22.2	8	34.9	177.8	50.8	98.4	50.8	143.8	144.5	185.7	-	141.30
150	317.5	269.9	22.2	12	36.5	206.4	52.4	98.4	52.4	170.7	171.4	215.9	-	168.27
200	381.0	330.2	25.4	12	41.3	260.3	61.9	111.1	61.9	221.5	222.2	269.9	-	219.07
250	444.5	387.3	28.6	16	47.6	320.7	66.7	117.5	95.2	276.3	277.4	323.8	-	273.05
300	520.7	450.8	31.7	16	50.8	374.6	73.0	130.2	101.6	327.1	328.2	381.0	-	323.85
350	584.2	514.3	31.7	20	54.0	425.4	76.2	142.9	111.1	359.1	360.2	412.7	-	355.60
400	647.7	571.5	34.9	20	57.2	482.6	82.5	146.0	120.6	410.5	411.2	469.9	-	406.40
450	711.2	628.5	34.9	24	60.3	533.4	88.9	158.7	130.2	461.8	462.3	533.4	-	457.20
500	774.7	685.8	34.9	24	63.5	587.4	95.2	161.9	139.7	513.1	514.3	584.2	-	508.00
600	914.4	812.8	41.3	24	69.8	701.7	106.4	168.3	152.4	615.9	615.9	692.1	-	609.60

Metric values are direct conversion from Inches table of B16.5

Flanges except Lap Joint will be furnished with (1.6 mm) raised face, Which is included in "Thickness" (C) and Length Through Hub (Y).



STAINLESS STEEL PIPES & TUBES

Stainless Steel

ASTM / ASME SA 312 GR. TP 304, 304L, 304H, 309S, 309H, 310S, 310H, 316, 316TI, 316H, 316LN, 317, 317L, 321, 321H, 347, 347H, 904L.

ASTM / ASME SA 358 CL 1 & CL 3 Gr. 304, 304L, 304H, 309S, 309H, 310S, 310H, 316, 316TI, 316H, 321, 321H, 347, 347H.

Nickel Alloy

ASTM / ASME SB 161/B725/B730 UNS 2200 (NICKEL 200)

ASTM / ASME SB 161/B725/B730 UNS 2201 (NICKEL 201)

ASTM / ASME SB 165/B725/B730 UNS 4400 (MONEL 400)

ASTM / ASME SB 729/B464/B468 UNS 8020 (ALLOY20 / 20 CB 3)

ASTM / ASME SB 423/B705/B704 UNS 8825 (INCONEL 825)

ASTM / ASME SB 167/B517/B516 UNS 6600 (INCONEL 600)

ASTM / ASME SB 407/B514/B515 UNS 8810/8811 (INCONEL 800/HT)

ASTM / ASME SB 444/B705/B704 UNS 6625 (INCONEL 625)

ASTM / ASME SB 622/B619/B622 UNS 10276 (HASTELLOY C276)

Duplex Steel

ASTM / ASME SA 790 UNS NO: 31803 / 32760

Carbon Steel

ASTM / ASME A 53 GR. A & B, ASTM A 106 GR. A, B & C. API 5L GR. B, API 5L X 42, X 46, X 52, X 60, X 65 & X 70. ASTM / ASME A 691 GR. A, B & C

Alloy Steel

ASTM / ASME A 335 GR P 1, P 5, P 9, P 11, P 12, P 22, P 23, P 91



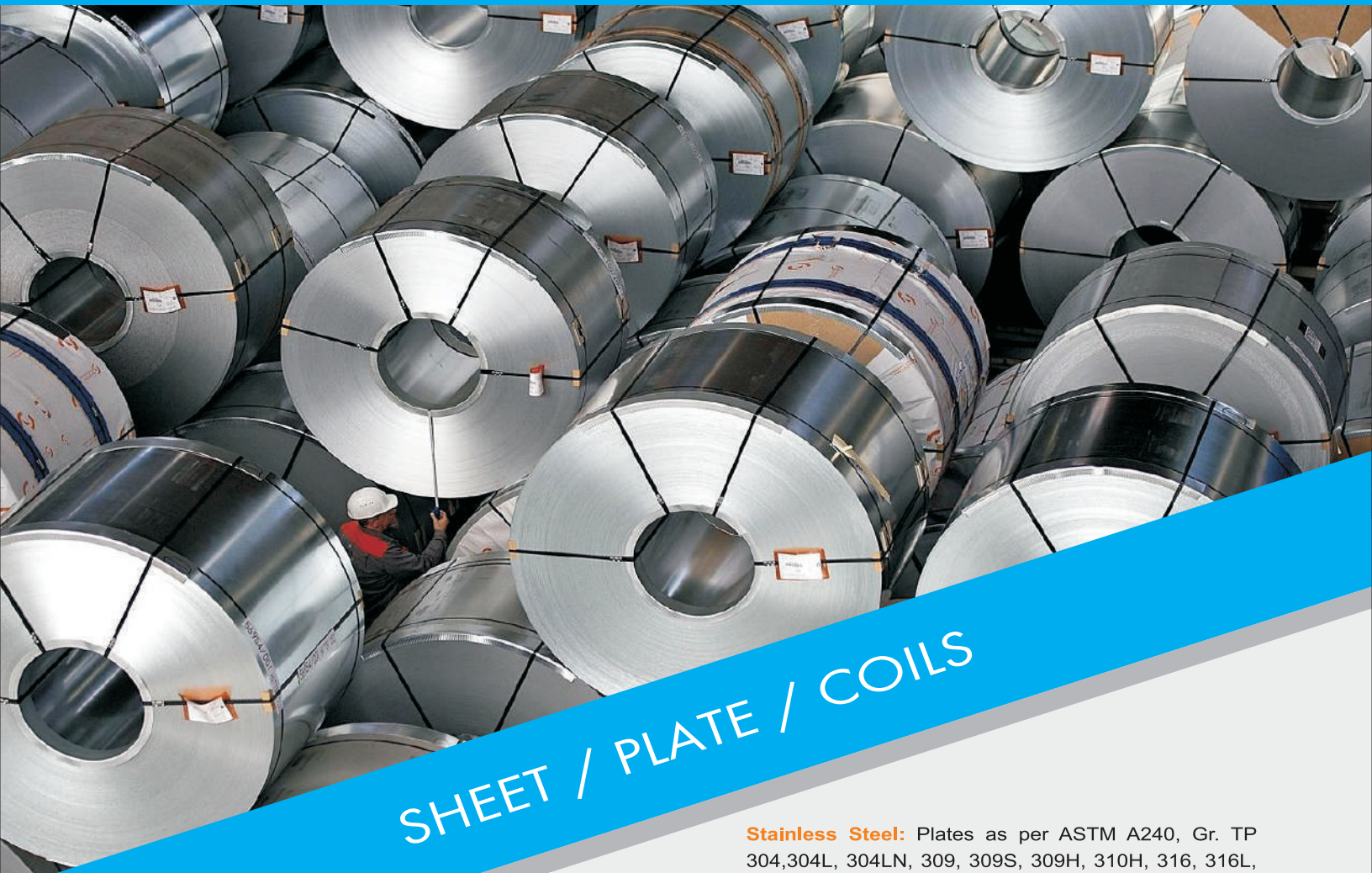
ANSI B 36.19 Stainless Steel Pipe Dimension in MM & Weight Per Kg.

Nominal Pipe size		Outside Diameter	Schedule 5 S		Schedule 10 S		Schedule 20 S		Schedule 40 S		Schedule 80 S		Schedule 160 S		XXS	
mm	inch	mm	WT. mm	WEIGHT(KG/M)	WT. mm	WEIGHT(KG/M)	WT. mm	WEIGHT(KG/M)	WT. mm	WEIGHT(KG/M)	WT. mm	WEIGHT(KG/M)	WT. mm	WEIGHT(KG/M)	WT. mm	WEIGHT(KG/M)
3	1/8	10.3	1.2	0.260	1.24	0.280	1.5	0.33	1.73	0.370	2.41	0.475	-	-	-	-
6	1/4	13.7	1.2	0.370	1.65	0.498	2.00	0.58	2.24	0.643	3.02	0.808	-	-	-	-
10	3/8	17.1	1.2	0.470	1.65	0.640	2.00	0.74	2.31	0.857	3.20	1.116	-	-	-	-
15	1/2	21.3	1.65	0.812	2.11	1.014	2.30	1.07	2.77	1.286	3.73	1.642	4.78	1.94	7.47	2.55
20	3/4	26.7	1.65	1.032	2.11	1.300	2.55	1.52	2.87	1.708	3.91	2.225	5.56	2.90	7.82	3.64
25	1	33.4	1.65	1.310	2.77	2.121	2.55	1.94	3.38	2.537	4.55	3.282	6.35	4.24	9.09	5.45
32	1 1/4	42.2	1.65	1.671	2.77	2.728	3.00	2.90	3.56	3.435	4.85	4.524	6.35	5.61	9.70	7.77
40	1 1/2	48.3	1.65	1.923	2.77	3.150	3.00	3.35	3.68	4.101	5.08	5.484	7.14	7.25	10.15	9.55
50	2	60.3	1.65	2.421	2.77	3.986	3.00	4.24	3.91	5.515	5.54	7.588	8.74	11.11	11.07	13.44
65	2 1/2	73.0	2.11	3.741	3.05	5.336	4.00	6.81	5.16	8.756	7.01	11.570	9.53	14.91	14.02	20.39
80	3	88.9	2.11	4.578	3.05	6.546	4.00	8.37	5.49	11.448	7.62	15.484	11.1	21.30	15.24	27.68
100	4	114.3	2.11	5.918	3.05	8.483	4.50	12.18	6.02	16.296	8.56	22.628	13.49	33.54	17.12	41.03
125	5	141.3	2.77	9.593	3.40	11.721	5.00	16.80	6.55	22.065	9.53	31.364	15.88	49.11	19.05	57.43
150	6	168.3	2.77	11.461	3.40	14.014	6.35	25.36	7.11	28.648	10.97	43.142	18.25	67.53	21.95	79.22
200	8	219.1	2.77	14.979	3.76	20.240	6.35	33.31	8.18	43.129	12.7	65.526	23.01	111.27	22.23	107.92
250	10	273.1	3.40	22.920	4.19	28.163	6.35	41.77	9.27	61.131	12.7	82.661	28.58	172.33	25.40	155.15
300	12	323.8	3.96	31.669	4.57	36.477	6.35	49.7	9.53	74.810	12.7	98.790	33.32	238.68	25.40	186.90
350	14	355.6	3.96	34.340	4.78	41.923	7.92	67.90	11.13	95.84	19.5	160.28				
400	16	406.4	4.19	41.560	4.78	47.993	7.92	77.82	12.7	124.99						
450	18	457.2	4.19	46.810	4.78	54.064	7.92	87.74	14.27	157.26						
500	20	508.0	4.78	59.310	5.54	69.590	9.53	117.14	15.09	185.95						
600	24	610.0	5.54	82.570	6.35	94.520	9.53	141.11	17.48	255.41						

Formula - Pipe Weight Kg / Mtr OD - Thick x Thick x 0.02466 = Kg Per Mtr.

Chemical Composition & Mechanical Properties of S.S. Pipe as per ASTM A 312

Chemical Composition %										Mechanical Properties, min						
Grade	C Max	Si Max	Mn Max	P Max	S Max	Ni	Cr	Mo	Other	Tensile Strength min. Ksi (Mpa)	Yield Point Ksi (Mpa)	Elongation % (G.L.: 2in or 1mm) Full Section	Strip Specimen	Round Specimen	Hardness Test Max Brinell	Rockwell
304	0.08	1.00	2.00	0.045	0.030	8.00-11.0	18.0-20.0	-	-	75(515)	30(205)	35	35 56T + 17.50	28	192	B 90
304L	0.035	1.00	2.00	0.045	0.030	8.00-13.0	18.0-20.0	-	-	70(485)	25(170)	35	35 56T + 17.50	28	192	B 90
304H	0.04-0.10	1.00	2.00	0.045	0.030	8.00-11.0	18.0-20.0	-	-	75(515)	30(205)	35	35 56T + 17.50	28	192	B 90
316	0.08	1.00	2.00	0.045	0.030	11.0-14.0	16.0-18.0	2.0/3.0	-	75(515)	30(205)	35	35 56T + 17.50	28	192	B 90
316L	0.035	1.00	2.00	0.045	0.030	10.0-14.0	16.0-18.0	2.0/3.0	-	70(485)	25(170)	35	35 56T + 17.50	28	192	B 90
316H	0.04-0.10	1.00	2.00	0.045	0.030	11.0-14.0	16.0-18.0	2.0/3.0	-	75(515)	30(205)	35	35 56T + 17.50	28	192	B 90
316Ti	0.08	0.75	2.00	0.045	0.030	10.0-12.0	16.0-18.0	2.0/3.0	Ti5xC% <0.70	75(515)	30(205)	35	35 56T + 17.50	28	192	B 90
317L	0.035	1.00	2.00	0.045	0.030	11.0-15.0	18.0-20.0	3.0/4.0	-	75(515)	30(205)	35	35 56T + 17.50	28	192	B 90
309S	0.08	1.00	2.00	0.045	0.030	12.0-15.0	22.0-24.0	0.75	-	75(515)	30(205)	35	35 56T + 17.50	28	192	B 90
310S	0.08	1.00	2.00	0.045	0.030	19.0-22.0	24.0-26.0	0.75	-	75(515)	30(205)	35	35 56T + 17.50	28	192	B 90
310H	0.04-0.10	1.00	2.00	0.045	0.030	19.0-22.0	24.0-26.0	-	-	75(515)	30(205)	35	35 56T + 17.50	28	192	B 90
321	0.08	1.00	2.00	0.045	0.030	9.0-12.0	17.0-19.0	-	Ti5xC% <0.70	75(515)	30(205)	35	35 56T + 17.50	28	192	B 90
312H	0.04-0.10	1.00	2.00	0.045	0.030	9.0-12.0	17.0-19.0	-	Ti4xC% <0.60	75(515)	30(205)	35	35.56T + 17.50	28	192	B 90
347	0.08	1.00	2.00	0.045	0.030	9.0-13.0	17.0-19.0	-	Nb/Ta: 10xC% <1%	75(515)	30(205)	35	35.56T + 17.50	28	192	B 90
347H	0.04-0.10	1.00	2.00	0.045	0.030	9.0-13.0	17.0-19.0	-	Nb/Ta: 8xC% <10%	75(515)	30(205)	35	35.56T + 17.50	28	192	B 90



SHEET / PLATE / COILS

Stainless Steel: Plates as per ASTM A240, Gr. TP 304, 304L, 304LN, 309, 309S, 309H, 310H, 316, 316L, 316H, 316LN, 316Ti, 317, 317L, 321, 321H, 347, 347H, 409, 410, 420, 430 etc

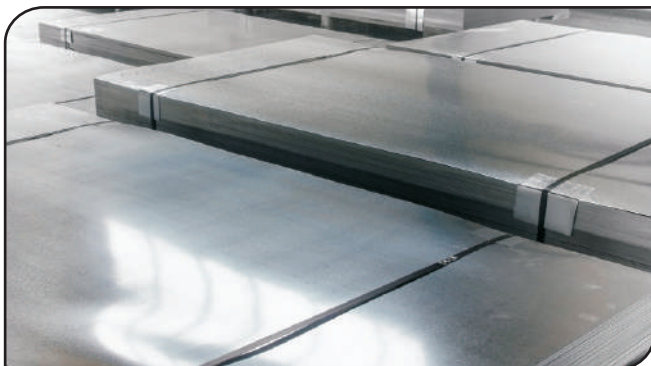
Nickel Alloy

ASTM / ASME SB 162 UNS 2200 (NICKEL 200)
ASTM / ASME SB 162 UNS 2201 (NICKEL 201)
ASTM / ASME SB 127 UNS 4400 (MONEL 400)
ASTM / ASME SB 463 UNS 8020 (ALLOY 20 / 20 CB 3)
ASTM / ASME SB 424 UNS 8825 (INCONEL 825)
ASTM / ASME SB 168 UNS 6600 (INCONEL 600)
ASTM / ASME SB 409 UNS 8810/8811 (INCONEL 800/800HT)
ASTM / ASME SB 443 UNS 6625 (INCONEL 625)
ASTM / ASME SB 575 UNS 10276 (HASTELLOY C276)

Carbon Steel / Boiler Quality Plates : as per IS 2062/ASTMA36, Gr. A, B & C, IS 2002 Gr. 1 & 2 ASTMA 516 Gr. 60 & 70

Alloy Steel Plates : as per ASTMA387 Gr. 2, 5, 9, 11, 12 & 22 in class 1 & 2 ASTMA 204 Gr. A & B, DIN 17175 Gr. 15Mo3 & 16Mo3 with IBR Test Certificate.

Range: 0.5 mm To 200 mm thick in 1000 mm To 3000 mm width & 2500 mm to 12500 mm length available with NACE MR 01-75





ROUND BAR

- Stainless Steel & Duplex Steel
- Nickel Alloy
- Carbon - Nickel Alloy

Stainless Steels : 347, 310, 303, 304/304H, 316/316L, 317/317L, 17/4PH, 410, 431, Nitronic 50, Nitronic 60, Nimonic 80A

Duplex & Super Duplex : UNS S31803, UNS S32750, UNS S32760, UNS S32550, 254SMO

Hastelloy Alloy : Hastelloy C4, Hastelloy B2, Hastelloy G30, Hastelloy B3, Hastelloy C276, Hastelloy X, Hastelloy C22

Incoloy Alloys : Incoloy Alloy 20, Incoloy Alloy 800, Incoloy Alloy 800H/800HT, Incoloy Alloy 825, Incoloy Alloy 925, Incoloy, Alloy A286

Inconel Alloys : Inconel Alloy 600, Inconel Alloy 601, Inconel Alloy 625, Inconel Alloy 718 Inconel Alloy 725, Inconel Alloy X750

Monel Alloys : Monel 400, Monel R405, Monel K500.

Type : Round / Square / Hexagonal / Rectangular



CHEMICAL & PHYSICAL PROPERTIES OF C.S., S.S. & A.S., S.W. FORGED FITTINGS

ASTM A105/A105 M FORGED SOCKET WELD, SCREWED, CARBON STEEL PIPE FITTINGS

ASTM GRADE	C	Mn	Si	S	P	Cr	Ni	Mo	Other	Tensile (MPa)	Psi Yield (MPa)	Elongation %	Hardness	Redu %
A 105/105M	0.35 max	0.60 1.05	0.35 max	0.50 max	0.040 max	-	-	-	C4 - 0.40 Vn - 0.03 Cu - 0.02	485	(250)	22-	187 HB max	30

ASMA A182/A182M FORGED ALLOY STEEL, (S.W), SCREWED, FLANGES, FOR HIGH TEMPERATURE SERVICES

A 182/182M F1	0.28 max	0.60 0.90	0.15 0.35	0.045 max	0.045 max	-	-	0.44 0.65	-	485	275	20	143-192	30
A 182/182M F12 class 2	0.10 0.20	0.30 0.60	0.10 0.50	0.04 max	0.04 max	0.80 1.25	-	0.44 0.65	-	485	275	20	143-207	30
A 182/182M F11 class 2	0.10 0.20	0.30 0.60	0.50 1.00	0.04 max	0.04 max	1.0 1.50	-	0.44 0.65	-	485	275	20	143-207	30
A 182/182M F22 class 3	0.05 0.15	0.30 0.80	0.5 max	0.04 max	0.04 max	2.00 2.50	0.5 max	0.90 1.10	-	515	310	20	156-207	30
A 182/182M F5	0.15 max	0.30 0.60	0.50 max	0.03 max	0.03 max	4.0 6.0	0.5 max	0.44 0.65	-	485	275	20	143-217	35
A 182/182M F9	0.05 max	0.30 0.60	0.50 max	0.03 max	0.03 max	8.0 10.0	-	0.90 1.10	-	585	386	20	179-217	40

ASTM A234/234M PIPING FITTINGS OR WROUGHT CARBON STEEL FOR MODERATE AND ELEVATED TEMPERATURES

ASTM GRADE	C	Mn	Si	S	P	Cr	Ni	Mo	Other	Tensile Ps(MPa)	Yield	Elongation %	Hardness HB
A 234 WPB	0.30 max.	0.29 1.06	0.10 min.	0.058 max	0.050 max	-	-	-	-	415-585	240	22	197
A 234 WPC	0.35 max	0.29 1.06	0.10 min	0.058 max	0.050 max	-	-	-	-	485-655	275	22	197

ASTM A234 / 234M PIPE FITTINGS OF WROUGHT ALLOY STEEL FOR MODERATE AND ELEVATED TEMPERATURES

A 234/234M WP12 CL-1	0.05 0.20	0.30 0.80	0.60 max	0.045 max	0.035 max	0.80-1.25	-	0.44 0.65	-	415-585	220	22	197
A 234/234M WP12 CL-2	0.05 0.20	0.30 0.80	0.60 max	0.045 max	0.045 max	0.80-1.25	-	0.44 0.65	-	485-655	275	22	197
A 234/234M WP11 CL-1	0.05 0.15	0.30 0.60	0.50 max	0.030 max	0.030 max	1.00 1.50	-	0.44 0.65	-	415-585	205	22	197
A 234/234M WP11 CL-2	0.05 0.20	0.30 0.60	0.50 max	0.040 max	0.040 max	1.00 1.50	-	0.44 0.65	-	485-655	275	22	197
A 234/234M WP11 CL-3	0.05 0.20	0.30 0.60	0.50 max	0.040 max	0.040 max	1.00 1.50	-	0.44 0.65	-	520-690	310	22	197
A 234/234M WP22 CL-1	0.05 0.15	0.30 0.60	0.50 max	0.040 max	0.040 max	1.90 2.60	-	0.87 1.13	-	415-585	205	22	197
A 234/234M WP22 CL-3	0.05 0.15	0.30 0.60	0.50 max	0.040 max	0.040 max	1.90 2.60	-	0.87 1.13	-	520-690	310	22	197
A 234/234M WP 5	0.15 max	0.30 0.60	0.50 max	0.030 max	0.040 max	4.00 6.00	-	0.44 0.65	-	415-585	205	22	217
A 234/234M WP 9	0.15 max	0.30 0.60	0.25 1.00	0.030 max	0.030 max	8.00 10.00	-	0.90 1.10	-	415-585	205	22	217

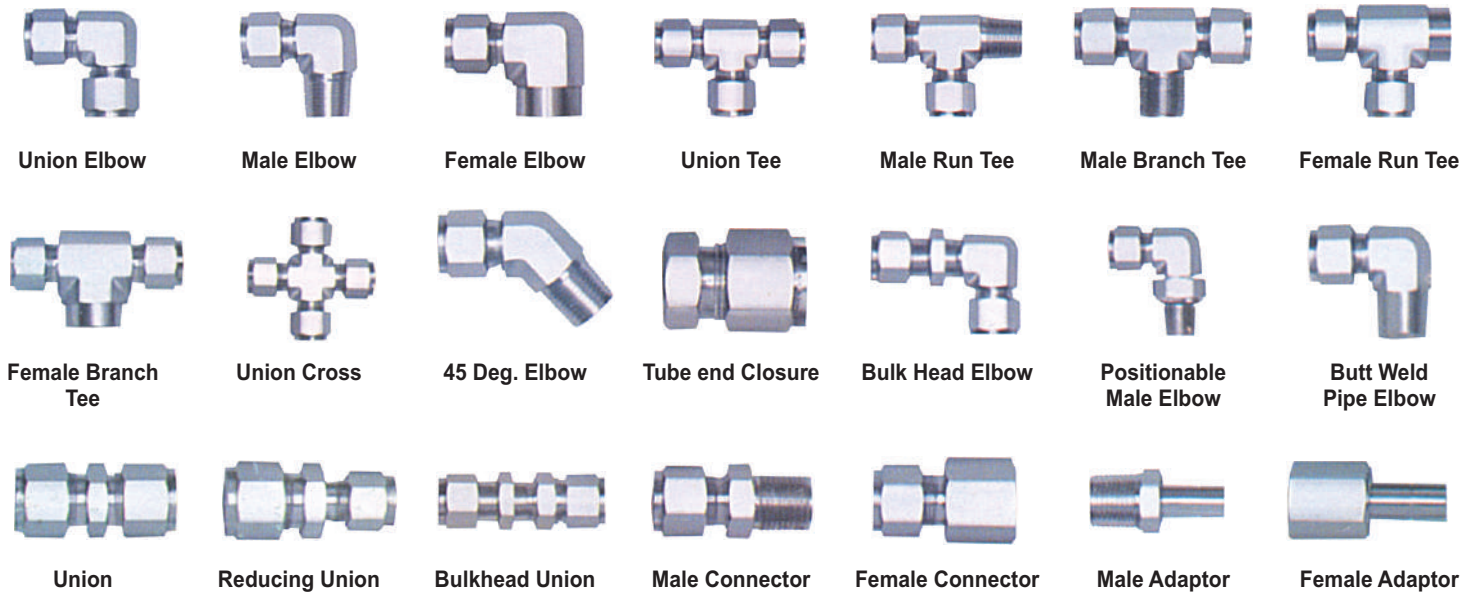
ASMA 403 / A 403M WROUGHT AUSTENITIC STAINLESS STEEL PIPE FITTINGS

A 403/403M WP 304	0.08 max	2.00	1.00	0.030	0.045	18.00 20.00	8.00 11.00	-	-	515	205	20	-
A 403/403M WP 304L	0.035 max	2.00	1.00	0.030	0.045	18.00 20.00	8.00 13.00	-	-	485	170	20	-
A 403/403M WP 309	0.015 max	2.00	1.00	0.030	0.045	22.00 24.00	12.00 15.00	-	-	515	205	20	-
A 403/403M WP 310	0.015 max	2.00	1.50	0.030	0.045	24.00 26.00	19.00 22.00	-	-	515	205	20	-
A 403/403M WP 316	0.08 max	2.00	1.00	0.030	0.045	16.00 18.00	10.00 14.00	2.00 3.00	-	515	205	20	-
A 403/403M WP 316 L N	0.030 max	2.00	0.75	0.030	0.040	16.00 18.00	11.00 14.00	2.00 3.00	N 0.1-0.16	515	205	20	-
A 403/403M WP 316L	0.035 max	2.00	1.00	0.030	0.045	16.00 18.00	10.00 15.00	2.00 3.00	-	485	170	20	-
A 403/403M WP 317L	0.030 max	2.00	1.00	0.030	0.045	18.00 20.00	11.00 15.00	3.00 4.00	-	515	205	20	-
A 403/403M WP 321	0.08 max	2.00	1.00	0.030	0.045	17.00 20.00	9.00 13.00	-	Ti > 5xC = 0.70	515	205	20	-
A 403/403M WP 347H	0.04-0.10	2.00	1.00	0.030	0.045	17.00 20.00	9.00 13.00	-	Cb + Ta = 10xC = 1.10	515	205	20	-

CARBON STEEL, ALLOY STEEL LOW TEMP, PIPE AND TUBE SPECIFICATION

SPECIFICATION	WT	CHEMICAL								MECHANICAL PROPERTIES			SPECIFIC REQUIREMENT
		C %	Mn %	P % MAX	S % Max	Si %	Cr %	Mo %		TENSILE STRENGTH	YIELD STRESS	ELONGATION	
ASTM A53/A	AW	0.25MAX	0.95MAX	0.050	0.045	-	-	-	-	330 MIN	250 MIN	36	Cr Mo Cu Ni VA 40 15 40 40 08 Five elements not to exceed 1%
ASTM A53/B	AW	0.30MAX	0.120MAX	0.050	0.045	-	-	-	-	415MIN	240 MIN	29/5	
ASTM/A 106/A	AW	0.25MAX	0.27-0.93	0.035	0.025	0.10 MIN	0.40 MAX	0.15 MAX	0.15 MAX	330 MIN	205 MIN	35/2	
ASTM A106/B	AW	0.30MAX	0.29-1.06	0.035	0.035	0.10 MIN	0.40 MAX	0.15 MAX	0.15 MAX	415 MIN	240 MIN	30/22	
ASTM A 106/C	AW	0.35MAX	0.29-1.06	0.035	0.035	0.10 MIN	0.40 MAX	0.15 MAX	0.15 MAX	485 MIN	275 MIN	30/22	
ASTM A179	MW	0.06-0.18	0.27-0.63	0.035	0.035	-	-	-	-	325 MIN	180 MIN	35.0	Hardness 72 hrv Max Hardness 72 hrv Max Hardness 77 hrv Max Hardness 80 hrv Max Hardness 81 hrv Max
ASTM A214	MW	0.18MAX	0.27-0.63	0.035	0.035	-	-	-	-	385 MIN	180 MIN	35.0	
ASTM A192	MW	0.06-0.18	0.27-0.63	0.035	0.035	0.25 MAX	-	-	-	325 MIN	180 MIN	35.0	
ASTM A209/T1	MW	0.100-20	0.30-0.80	0.025	0.025	0.10-0.50	-	0.44-0.65	-	380 MIN	205 MIN	30/22	
ASTM A209/T1a	MW	0.15-0.25	0.30-0.80	0.025	0.025	0.10-0.50	-	0.44-0.65	-	365 MIN	195 MIN	30/22	
ASTM A209/T 1b	MW	0.14MAX	0.30-0.80	0.025	0.025	0.10-0.50	-	0.44-0.65	-	415 MIN	220 MIN	30/22	Hardness 77 hrv Max Hardness 79 hrv Max Hardness 85 hrv Max Hardness 85 hrv Max
ASTM A210A-1	MW	0.27MAX	0.93MAX	0.035	0.035	0.10 MIN	-	-	-	415 MIN	255 MIN	30/22	
ASTM A210/C	MW	0.35MAX	0.23-1.06	0.035	0.035	0.10 MIN	-	-	-	485 MIN	275 MIN	30/22	
ASTM A213/T2	MW	0.100-20	0.30-0.61	0.025	0.025	0.10-0.30	0.50-0.81	0.44-0.65	-	415 MIN	205 MIN	30/22	
ASTM A213/T5	MW	0.15MAX	0.30-0.60	0.025	0.025	0.50 MAX	4.00-6.00	0.44-0.65	-	415 MIN	205 MIN	30/22	Hardness 85 hrv Max Hardness 85 hrv Max Hardness 85 hrv Max Hardness 85 hrv Max Hardness 85 hrv Max
ASTM A213/T11	MW	0.15MAX	0.30-0.60	0.025	0.025	0.50-1.00	1.00-1.50	0.44-0.65	-	415 MIN	205 MIN	30/22	
ASTM A213/T12	0.05	0.15MAX	0.30-0.61	0.025	0.025	0.50MAX	0.80-1.25	0.44-0.65	-	415 MIN	220 MIN	30/22	
ASTM A213/T22	0.05	0.15MAX	0.30-0.60	0.025	0.025	0.50MAX	1.90-1.60	0.87-1.13	-	415 MIN	205 MIN	30/22	
ASTM A333/3	A W	0.19MAX	0.31-0.64	0.025	0.025	0.18-0.37	Ni	3.18-3.82	-	380 MIN	205 MIN	35/25	Impact as-50f for 40x10 j18/14 50 f 40 x 10 j 18/14 90 hrb mx
ASTM A333/6	A W	0.30MAX	0.29-1.06	0.025	0.025	0.10 MIN	-	-	-	415 MIN	240 MIN	30/22	
ASTM A334/3	A W	0.19MAX	0.31-0.64	0.025	0.025	0.18-0.37	Ni	3.18-3.82	-	380 MIN	205 MIN	35/28	
ASTM A334/6	MW	0.30MAX	0.9-1.06	0.025	0.025	0.10MIN	-	-	-	415 MIN	240 MIN	30/22	
ASTM A335/P1	A W	0.10-0.20	0.30-0.80	0.025	0.025	0.10-0.50	-	0.40-0.65	-	380 MIN	205 MIN	30/22	
ASTM A335/P2	A W	0.100-20	0.30-0.61	0.025	0.025	0.10-0.30	0.50-0.81	0.40-0.65	-	380 MIN	205 MIN	30/22	Hardness 85 hrv Max Hardness 85 hrv Max Hardness 85 hrv Max Hardness 85 hrv Max Hardness 85 hrv Max
ASTM A335/P5	A W	0.15MAX	0.30-0.60	0.025	0.025	0.50MAX	4.00-6.00	0.40-0.65	-	415 MIN	205 MIN	30/22	
ASTM A335/P11	0.05	0.15MAX	0.30-0.60	0.025	0.025	0.50-1.00	1.00-1.50	0.40-0.65	-	415 MIN	205 MIN	30/22	
ASTM A335/P12	0.05	0.15MAX	0.30-0.61	0.025	0.025	0.50MAX	0.80-1.25	0.40-0.65	-	415 MIN	205 MIN	50/22	
ASTM A335/P22	0.05	0.15MAX	0.30-0.60	0.025	0.025	0.50MAX	1.90-2.60	0.87-1.13	-	415 MIN	205 MIN	30/22	

S.S. INSTRUMENTAL FERRULE FITTINGS



S.S. TEE/ELBOW FERRULE FITTINGS



Design : Double Ferrule Type & Single Ferrule
 Size Range : 1/16" Tube OD to 2" Tube OD
 End Connection : OD / NPT / BSP / SW / BW
 Material : SS 316 / SS 304 / CS / Monel / Brass

- S.S. Union Tee
- S.S. Male Branch Tee
- S.S. Female Branch Tee
- S.S. Male Elbow
- S.S. Cross
- S.S. Valve Body
- S.S. Union
- S.S. Union Tee
- S.S. Male Branch Tee
- S.S. Female Branch Tee
- S.S. Male Elbow
- S.S. Cross
- S.S. Valve Body
- S.S. Union

MANIFOLD VALVES

Design : Two Way, Three Way, Five Way,
 Manifold Straight & 'T' Type & 'H' Type
 End Connection : NPT / BSP / Flange (1/8" to 1")
 Material : SS 316 / SS 304 / CS / Brass / Monel
 Pressure Rating : 10,000 psig



NEEDLE VALVES

Needle Vavles are available in size, range of 1/8" to 1" with Double Ferrule Tube connection and NPT, BSP, BSPT, Threaded male / female connections with maximum working pressure 10,000 psi. Valves are available in Stainless Steel of all grades, Monel, Brass, C.S. etc.



SYPHON TUBES

Type : Stainless Steel 304 & 316 Gr. in U Type, Trumpet Type (Pigtail & Coil Type)
 Application : Connected between the pressure gauge & process in applications where high temperature above 65Deg C for e.g. stream. These Syphon Tubes acts as a cooling coil and protects the guage from high temperature vapors





FASTENERS

Salient features :

- Server vibration under impulse pressure • Static Pressure • High tolerance
- Dimensional preciseness • Corrosion resistance • Long service life
- Perfect installation & application • Study construction • Fast performance

Stainless Steels : 347, 310, 303, 304/304H, 316/316L, 317/317L, 17/4PH, 410, 431, Nitronic 50, Nitronic 60, Nimonic 80A

Carbon Steel : 4.6, 8.8, 10.9, 12.9.

Duplex & Super Duplex : UNS S31803, UNS S32750, UNS S32760, UNS S32550, 254SMO

Hastelloy Alloy : Hastelloy C4, Hastelloy B2, Hastelloy G30, Hastelloy B3, Hastelloy C276, Hastelloy X, Hastelloy C22

Incoloy Alloys : Incoloy Alloy 20, Incoloy Alloy 800, Incoloy Alloy 800H/800HT, Incoloy Alloy 825, Incoloy Alloy 925, Incoloy , Alloy A286

Inconel Alloys : Inconel Alloy 600, Inconel Alloy 601, Inconel Alloy 625, Inconel Alloy 718, Inconel Alloy 725, Inconel Alloy X750

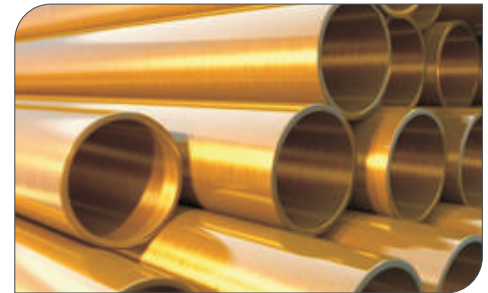
Monel Alloys : Monel 400, Monel R405, Monel K500.

TYPES

- ANCHOR FASTENERS • STUD BOLTS • HEX HEAD BOLTS • THREADED RODS
- SOCKET CAPS SCREW • COUNTERSUNK BOLTS • HEX NUTS
- FLAT / SPRING / LOCK WASHERS • EYE BOLTS • FOUNDATION BOLTS

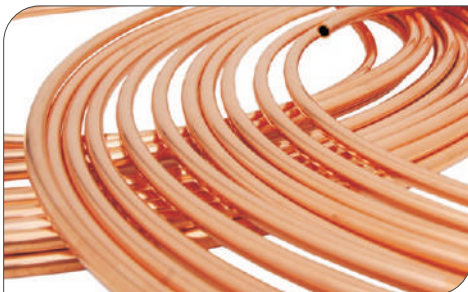


BRASS TUBES



Copper	DHP Copper, ETP Copper, DPA Copper OFHC Copper
BRASS	63 / 37 Brass, 70 / 30 Brass, Admiralty Brass, Aluminium Brass & other Compositions of Brass.
CUPRONICKEL	95 / 5 alloy, 90 / 10 alloy & 70 / 30 alloy.
BRONZES	Phosphorous Bronze Aluminium Bronze & Gun Metal, Phosphorous Bronze A B1 / A B2 Bush Round.

COPPER TUBES



TUBES

2mm OD to 200mm OD with Wall thickness of 0.10 mm to 15 mm in length upto 10 mtrs straight (in coils upto 25 mtrs) in copper, Brass & Cupronickel.

RODS

STRIPS / PROFILES

WIRES

S. E. WIRES

In all size upto 160mm diameter in Copper, Brass and Bronzes. Copper Strips and sections as per clients specific requirements. Copper wires upto 42 swg in bright annealed condition. Super enamelled copper wires upto 42 swg.

BRASS RODS



SPECIFICATIONS

Indian Standard Specification (ISS)
British Standard Specification (BSS)
American Standard for Testing of Material (ASTM)
As per Parties Specific Specification.

COPPER TUBE & SECTIONS



TESTING FACILITIES



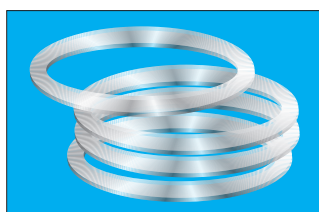
- Chemical Analysis
- Physical Testing
- Hardness Testing
- Hydrostatic Testing
- Pneumatic Testing
- Stress Corrosion Testing
- Dimensional Inspection
- Destructive Testing- Flattening,
- Drift Test,
- Bend Test etc.
- NDT - Eddy Current Testing

BUSINESS FORMULA

COMPETITIVE PRICE + SPECIFIED MATERIAL + TIME BOUND DELIVERY = INCREASING BUSINESS

FORMULAE

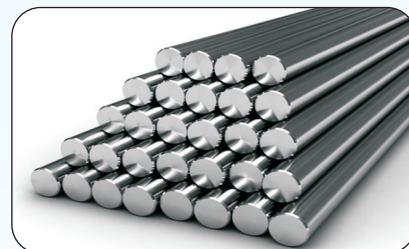
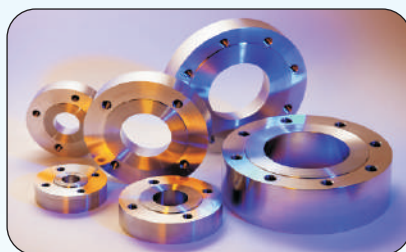
- 1) **WEIGHT OF STAINLESS STEEL PIPES & TUBES**
 $OD \text{ (mm)} - W.T. \text{ (mm)} \times W.T. \text{ (mm)} \times 0.02466 = \text{kg. per Mtr.}$
- 2) **SHEET WIDTH REQUIRED FOR ROLLED AND WELDED PIPES**
 $O.D. \text{ (mm)} - THK \text{ (mm)} \times 3.14 = \text{Sheet Width}$
- 3) **WEIGHT OF STAINLESS STEEL SHEETS**
 $\text{Length (mtr)} \times \text{Wdth (mtr)} \times \text{Thk (mm.)} \times 8 = \text{Kg Per Sheet}$
- 4) **WEIGHT OF STAINLESS STEEL CIRCLE & BLANKS**
 $O.D. \text{ (mm)} \times O.D. \text{ (mm)} \times \text{Thk (mm)} / 160/1000 = \text{kg Per Pcs.}$
- 5) **WEIGHT OF STAINLESS STEELS ROUNDS**
 $\text{Dia. (mm)} \times \text{Dia (mm)} \times 0.00623 = \text{Per Mtr.}$
- 6) **WEIGHT OF STAINLESS STEEL HEXAGONAL RODS**
 $\text{Dia. (mm)} \times \text{Dia. (mm)} \times 0.00679 = \text{Per Mtr.}$
- 7) **WEIGHT OF STAINLESS STEEL SQUARE BARS**
 $\text{Dia. (mm)} \times \text{Dia (mm)} \times 0.00787 = \text{kg. Per Mtr}$
- 8) **WEIGHT OF CARBON STEEL PIPES & TUBES**
 $O.D. \text{ (mm)} - W.T. \text{ (mm)} \times W.T. \text{ (mm)} \times 0.02466 = \text{kg. per Mtr.}$
- 9) **WEIGHT OF CARBON STEEL SHEETS-PLATES**
 $\text{Length (mtr.)} \times \text{width (mtr)} \times \text{Thk (mm)} \times 7.85 = \text{Kg Per Sheet}$
- 10) **WEIGHT OF COPPER PIPES**
 $O.D. \text{ (mm)} - W.T. \text{ (mm)} \times W.T. \text{ (mm)} \times 0.0256 = \text{Kg. per Mtr.}$
- 11) **WEIGHT OF LEAD PIPES (approx.)**
 $O.D. \text{ (mm)} - W.T. \text{ (mm)} \times W.T. \text{ (mm)} \times 0.0345 = \text{Kg. Per Mtr.}$
- 12) **WEIGHT OF LEAD SHEETS (approx.)**
 $\text{Length (mtr.)} \times \text{Width (mtr.)} \times \text{Thk (mm)} \times 11.2 = \text{kg Per Sheet}$
- 13) **WEIGHT OF ALLUMINIUM PIPES (approx.)**
 $O.D. \text{ (mm)} - W.T. \text{ (mm)} \times W.T. \text{ (mm)} \times 0.0082 = \text{Kg. Per Mtr.}$
- 14) **WEIGHT OF ALLUMINIUM SHEETS (approx.)**
 $\text{Length (mtr.)} \times \text{Width (mtr.)} \times \text{Thk (mm)} \times 2.66 = \text{Kg Per Sheet}$





APPLICATION INDUSTRIES

- Oil & Gas Industries
- Steel Plant & Rolling Mills Mfg.
- Automobile & Heavy Mobile Vehicle
- Material Handling Stores
- Agriculture Machinery Equipments
- Refineries
- Analyzer-lab & Testing Equipments
- Paint Industries
- Car Care Systems
- Life Sciences
- Super Market Storage & Rack System
- Automation Machinery
- Multi Parking Systems
- Military
- Power Generations Systems
- Cement Industry Machinery
- Motion & Control Tech. Equipment
- Hydrostatic Drive Systems
- Hydrostatic Press & Power Packs
- Cooling & Heating Systems
- Packaging Equipments
- Engines & Railways
- Pulp Paper Machinery
- Fuel Cells Components
- Machine Tool Application
- Industrial Mining Equipments
- Food & Beverage Equipments
- Marine Project
- Oil Mill Plants
- Aerospace & Aircraft System
- Pollution Control Equipments
- Offshore Engineering
- Plastic / Rubber Processing Machines
- Chemical Machinery
- Fire & Safety Industries



Bhagwanaram Bishnoi 9869506791
Sanjay Bishnoi 9833499592



POPULAR METAL INDIA

107/111, Matka Bldg., Off. No. 38, 3rd Floor, 3rd Kumbharwada, Dr. M.G. Mahimtura Marg,
Mumbai - 400004. • **Mob.:** 9869506791 / 9833499592 • **Tel.:** 022-6743 6504

E-mail : popularmetalindia@gmail.com / sales@popularmetalindia.com

Website : www.popularmetalindia.com

