SOLUTION FOR EXCELLENCE

MRB FORGE & FITTINGS LLP.

AN ISO 9001 - 2015, ISO 14001 - 2015, ISO 45001 - 2018,
PED & IBR APPROVED MANUFACTURING COMPANY



MANUFACTURER & EXPORTER OF PIPE FITTINGS & FLANGES

IN STAINLESS STEEL,
CARBON STEEL & ALLOY STEEL.











www.mrbmetals.com

ABOUT COMPANY

MRB Forge & Fittings LLP. is the fastest-growing manufacturing company in gujarat (India) in the field of manufacturing of steel pipe fittings and flanges in grades of stainless steel, carbon steel, alloy steel, duplex steel & nickel steel. MRB is equipped with integrated manufacturing facilities combined with its market expertise with a trust of delivering premium quality to its customers with superior services. MRB Forge & Fittings LLP. is an ISO certified company and is accredited with ISO-9001:2015, ISO 14001:2015 & OHSAS 1800:2007.

MRB Forge & Fittings LLP. is IBR approved manufacturing company of pipe fittings and flanges & have in-house facility for PMI (positive material identification). MRB is not only an acronym for our company, but also stands for our corporate philosophy "Service by Technological Integration". Each of the department right from procurement, production, inventory, marketing, sales, dispatch 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.



WE CREATE INDUSTRIES

GROUP COMPANY

MRB PIPE & TUBES PVT. LTD.

(An ISO 9001:2015, ISO 14001:2015 & PED certified company)

Our Vision

To achieve global excellence by producing and supplying the best quality goods and services to our customers on a constant basis in order to fulfil & exceed their expectations. To be an integrated pipe fittings manufacturing unit with high competitiveness, sustainable growth & profits.

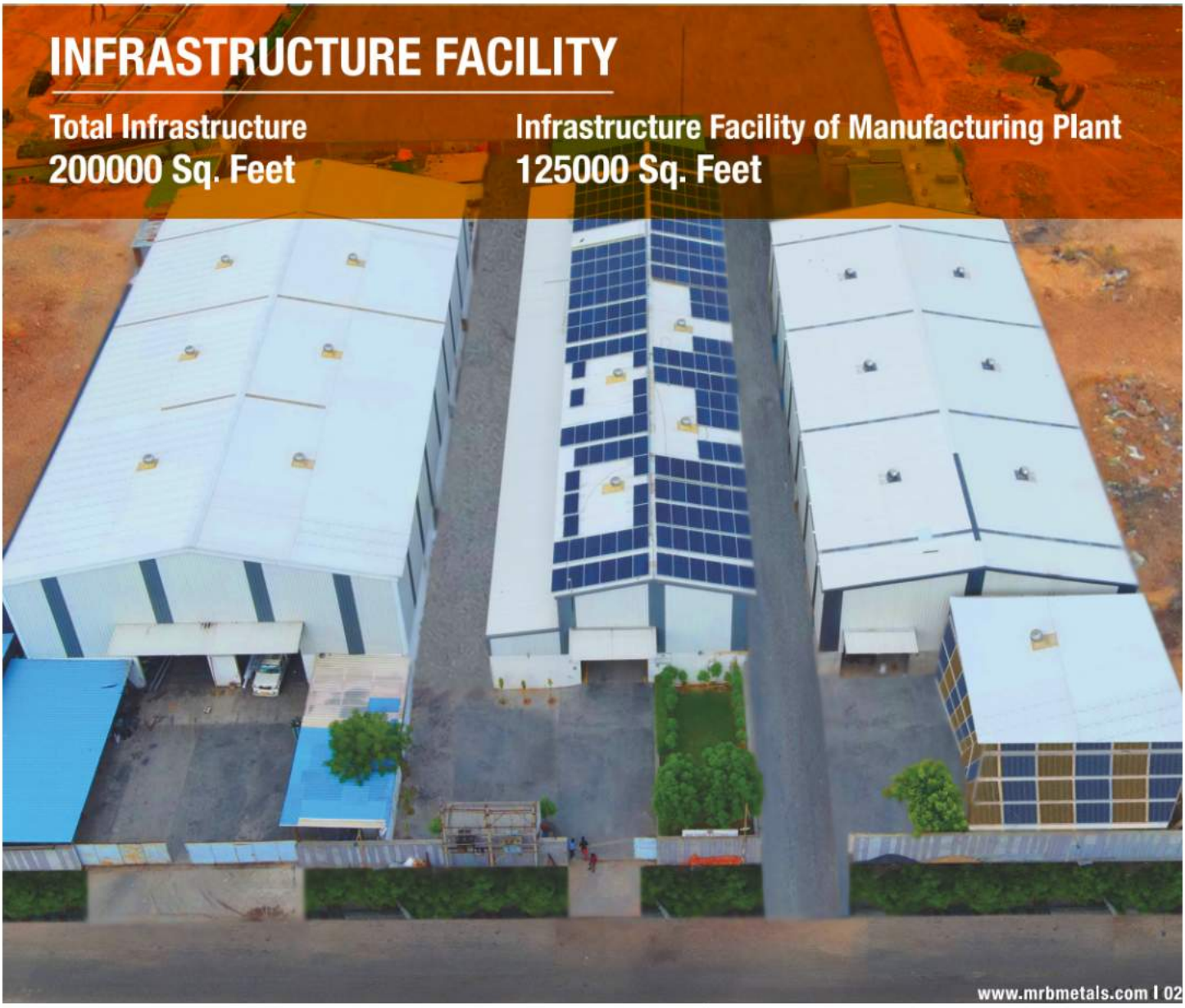
Our Mission

- We are committed to increasing productivity by focusing on constant innovation and enhancement of our goods and services. Delivering value for the customers.
- By improving our technology on a regular basis to keep up with our customer's requirements.
- To establish a motivated and skilled workforce where our workers can develop, grow, and contribute to the success of our firm.

INFRASTRUCTURE FACILITY

Total Infrastructure
200000 Sq. Feet

Infrastructure Facility of Manufacturing Plant
125000 Sq. Feet



CORPORATE VALUES

Our company's culture is governed by values that are instilled in the hearts and brains of every employee. These are part of our work ethics, which we share with our clients.



Passion

To excel through quality, to delight our clients, to enjoy our work.



Commitment to Customers

Our customers are our most important stakeholders and the lifeblood of our organization.
We endeavour to meet or surpass customer expectations on every buying experience.



Integrity & Ethics

We uphold the highest standards of integrity in all of our actions.



Innovation

We encourage thoughtful, creative and inspirational ideas & innovate together.



Responsibility

We believe in giving back to the environment where we work and live.



Quality

We believe in producing quality products that satisfy our customer requirements.



Respect

We value our people, encourage their development and reward their performance.

BUTTWELD FITTINGS

The Buttwelded Fittings Products are -

- 45°, 90°, & 180° Elbows & Bends
- Long Neck Stubend & Short Neck Stubend
- Equal Tee & Unequal Tee
- Concentric Reducer & Eccentric Reducer
- Pipe End Caps

Size : ¼" to 24".
Type : Welded & Seamless.
Thickness : SCH5s, SCH10s, SCH20s, SCH40, SCH80, SCH160, SCHXXS.
Dimension : ANSI, ASME, DIN, JIS, MSS, ETC.



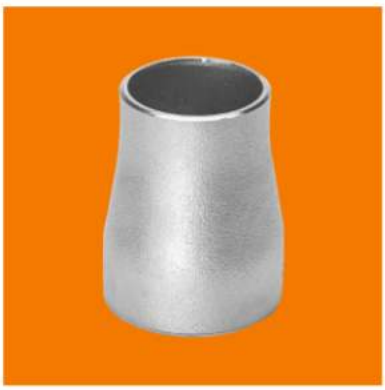
ELBOW



STUBEND



TEE



REDUCER

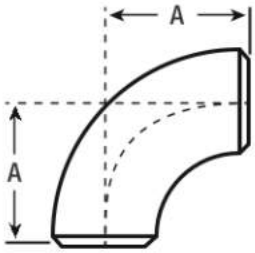


END CUP

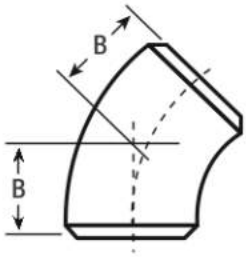


180° BEND

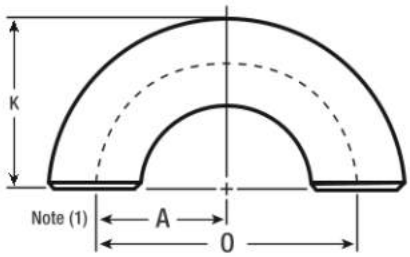
45° & 90° Elbow Fitting



90° Elbow



45° Elbow

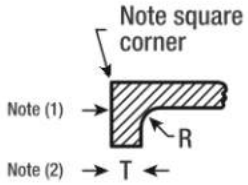


180° Elbow

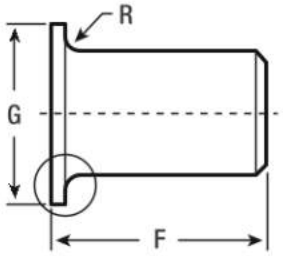
DIMENSIONS ACCORDING TO ANSI B16.9							
Nominal Pipe size		D	A	A	O	O	B
Inch.	mm	Outside Diameter (OD)	Center to face R=1D	Center to face R=1.5D 90° Elbow	Center to face R=2D	Center to face R=3D	Center to face 45° Elbow
1/2"	15	21.30	-	38.00	-	-	16.00
3/4"	20	26.70	-	38.00	-	-	19.00
1"	25	33.40	25.00	38.00	51.00	76.00	22.00
1.1/4"	32	42.20	32.00	48.00	64.00	95.00	25.00
1.1/2"	40	48.30	38.00	57.00	76.00	144.00	29.00
2"	50	60.30	51.00	76.00	102.00	152.00	35.00
2.1/2	65	73.00	64.00	95.00	127.00	190.00	44.00
3"	80	88.90	76.00	114.00	152.00	229.00	41.00
3.1/2"	90	101.60	89.00	133.00	178.00	267.00	57.00
4"	100	114.30	102.00	152.00	203.00	305.00	63.00
5"	125	141.30	127.00	190.00	254.00	381.00	79.00
6"	150	168.30	152.00	229.00	305.00	457.00	95.00
8"	200	219.10	203.00	305.00	406.00	610.00	127.00
10"	250	273.00	254.00	381.00	508.00	762.00	159.00
12"	300	323.90	305.00	457.00	610.00	914.00	190.00
14"	350	355.60	356.00	533.00	711.00	1067.00	222.00
16"	400	406.40	406.00	610.00	812.00	1219.00	254.00
18"	450	457.00	457.00	686.00	914.00	1372.00	286.00
20"	500	508.00	508.00	762.00	1016.00	1524.00	317.00
22"	550	558.80	559.00	838.00	1118.00	1676.00	343.00
24"	600	609.60	610.00	914.00	1219.00	1829.00	381.00
26"	650	660.00	660.00	991.00	-	-	406.00
28"	700	711.00	711.00	1067.00	-	-	438.00
30"	750	762.00	762.00	1143.00	-	-	470.00
32"	800	813.00	813.00	1219.00	-	-	502.00
34"	850	864.00	864.00	1295.00	-	-	533.00
36"	900	914.00	914.00	1372.00	-	-	565.00
38"	950	965.00	965.00	1448.00	-	-	600.00
40"	1000	1016.00	1016.00	1524.00	-	-	632.00
42"	1050	1067.00	1067.00	1600.00	-	-	660.00
44"	1100	1118.00	1118.00	1676.00	-	-	695.00
46"	1150	1168.00	1168.00	1753.00	-	-	727.00
48"	1200	1219.00	1219.00	1829.00	-	-	759.00

All Dimensions are in MM Millimetres. All the Dimensions of Butt-Weld Fittings are as per ANSI B16.9

Long Neck Stubend & Short Neck Stubend



Enlarged Section of Lap



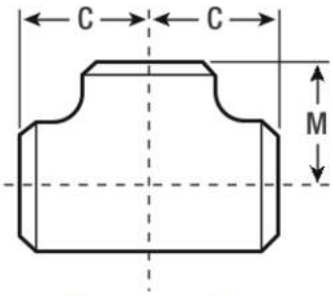
Stubend

DIMENSIONS OF STUBENDS AS PER ANSI B 16.9 & MSSP-43

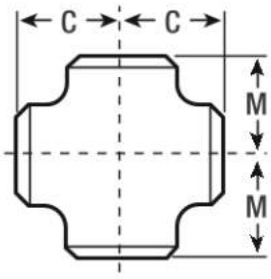
Nominal Pipe Size		Outside Diameter (OD)		Dia of Lap (G)	Long Pattern Length ANSI (F)	Short Pattern Length MSSP-43 (F1)	Radius (R)		N
Inch	mm	Max.	Min.				Type A (Max)	Type B (Max)	
1/2"	15	22.80	20.50	35.00	76.00	51.00	3.30	0.76	8
3/4"	20	28.10	25.90	42.00	76.00	51.00	3.30	0.76	8
1"	25	35.00	32.60	51.00	102.00	51.00	3.30	0.76	10
1.1/4"	32	43.60	41.40	64.00	102.00	51.00	4.83	0.76	12
1.1/2"	40	49.90	47.50	73.00	102.00	51.00	6.35	0.76	12
2"	50	62.40	59.50	92.00	152.00	64.00	7.87	0.76	16
2.1/2	65	75.30	72.20	105.00	152.00	64.00	7.87	0.76	18
3"	80	91.30	88.10	127.00	152.00	64.00	9.65	0.76	18
4"	100	116.70	113.50	157.00	152.00	76.00	11.18	0.76	20
5"	125	144.30	140.50	186.00	203.00	76.00	11.18	1.52	25
6"	150	171.30	167.50	216.00	203.00	89.00	12.70	1.52	25
8"	200	222.10	218.30	270.00	203.00	102.00	12.70	1.52	30
10"	250	277.20	272.30	324.00	254.00	127.00	12.70	1.52	35
12"	300	328.00	323.10	381.00	254.00	152.00	12.70	1.52	40
14"	350	359.90	354.80	413.00	305.00	152.00	12.70	1.52	45
16"	400	411.00	405.60	470.00	305.00	152.00	12.70	1.52	45
18"	450	462.00	456.00	533.00	305.00	152.00	12.70	1.52	45
20"	500	514.00	507.00	584.00	305.00	152.00	12.70	1.52	45
22"	550	565.00	558.00	641.00	305.00	152.00	12.70	1.52	45
24"	600	616.00	609.00	692.00	305.00	152.00	12.70	1.52	45

All Dimensions are in MM Millimetres. All the Dimensions of Butt-Weld Fittings are as per ANSI B16.9

Equal Tee & End Caps



Equal Tee

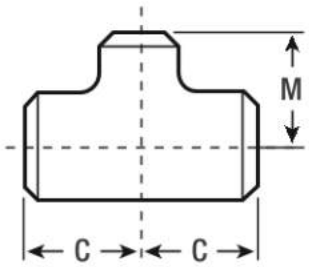


Cross

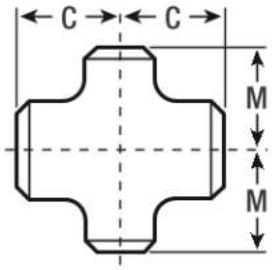
DIMENSIONS OF EQUAL TEE & END CAPS AS PER ANSI B16.9					
Nominal Pipe Size		D	C	M	E
Inch	mm	Outside Diameter	Center to end	Outlet	Height
1/2	15	21.30	25.00	25.00	25.00
3/4	20	26.70	29.00	29.00	25.00
1	25	33.40	38.00	38.00	38.00
1.1/4	32	42.20	48.00	48.00	38.00
1.1/2	40	48.30	57.00	57.00	38.00
2	50	60.30	64.00	64.00	38.00
2.1/2	65	73.00	76.00	76.00	38.00
3	80	88.90	86.00	86.00	51.00
3.1/2	90	101.60	95.00	95.00	64.00
4	100	114.30	105.00	105.00	64.00
5	125	141.30	124.00	124.00	76.00
6	150	168.30	143.00	143.00	89.00
8	200	219.10	178.00	178.00	102.00
10	250	273.00	216.00	216.00	127.00
12	300	323.80	254.00	254.00	152.00
14	350	355.60	279.00	279.00	165.00
16	400	406.40	305.00	305.00	178.00
18	450	457.00	343.00	343.00	203.00
20	500	508.00	381.00	381.00	229.00
22	550	559.00	419.00	419.00	254.00
24	600	610.00	432.00	432.00	267.00

All Dimensions are in MM Millimetres. All the Dimensions of Butt-Weld Fittings are as per ANSI B16.9

Reducing Tees



Unequel Tee



Cross

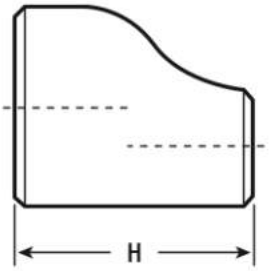
DIMENSION OF REDUCING OUTLET TEES AND REDUCING CROSSES AS PER ANSI B16.9

Nominal Pipe Size (Inch)	Outside Diameter (mm)		Center to End	
	Run	Outlet	Run C	Outlet M
1/2x1/2x3/8	21.3	17.3	25	25
1/2x1/2x1/4	21.3	13.7	25	25
3/4x3/4x1/2	26.7	21.3	29	29
3/4x3/4x3/8	26.7	17.3	29	29
1x1x3/4	33.4	26.7	38	38
1x1x1/2	33.4	21.3	38	38
1.1/4x1.1/4x1	42.2	33.4	48	48
1.1/4x1.1/4x3/4	42.2	26.7	48	48
1.1/4x1.1/4x1/2	42.2	21.3	48	48
1.1/2x1.1/2x1.1/4	48.3	42.2	57	57
1.1/2x1.1/2x1	48.3	33.4	57	57
1.1/2x1.1/2x3/4	48.3	26.7	57	57
1.1/2x1.1/2x1/2	48.3	21.3	57	57
2x2x1.1/2	60.3	48.3	64	60
2x2x1.1/4	60.3	42.2	64	57
2x2x1	60.3	33.4	64	51
2x2x3/4	60.3	26.7	64	44
2.1/2x2.1/2x2	73.0	60.3	76	70
2.1/2x2.1/2x1.1/2	73.0	48.3	76	67
2.1/2x2.1/2x1.1/4	73.0	42.2	76	64
2.1/2x2.1/2x1	73.0	33.4	76	57
3x3x2.1/2	88.9	73.0	86	83
3x3x2	88.9	60.3	86	76
3x3x1.1/2	88.9	48.3	86	73
3x3x1.1/4	88.9	42.2	86	70
4x4x3.1/2	114.3	101.6	105	102
4x4x3	114.3	88.9	105	98
4x4x2.1/2	114.3	73.0	105	95
4x4x2	114.3	60.3	105	89
4x4x1.1/2	114.3	48.3	105	86
5x5x4	141.3	114.3	124	117
5x5x3.1/2	141.3	101.6	124	114
5x5x3	141.3	88.9	124	111
5x5x2.1/2	141.3	73.0	124	108
5x5x2	141.3	60.3	124	105
6x6x5	168.3	141.3	143	137
6x6x4	168.3	114.3	143	130
6x6x3.1/2	168.3	101.6	143	127
6x6x3	168.3	88.9	143	124
6x6x2.1/2	168.3	73.0	143	121
8x8x6	219.1	168.3	178	168
8x8x5	219.1	141.3	178	162
8x8x4	219.1	114.3	178	156
8x8x3.1/2	219.1	101.6	178	152

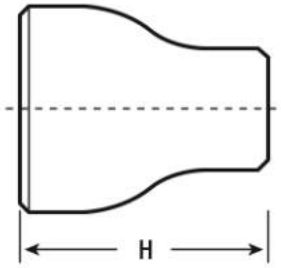
Nominal Pipe Size (Inch)	Outside Diameter		Center to End	
	Run	Outlet	Run C	Outlet M
10x10x8	273.0	219.1	216	203
10x10x6	273.0	168.3	216	194
10x10x5	273.0	141.3	216	191
10x10x4	273.0	114.3	216	184
12x12x10	323.8	273.0	254	241
12x12x8	323.8	219.1	254	229
12x12x6	323.8	168.3	254	219
12x12x5	323.8	142.3	254	216
14x14x12	355.6	323.8	279	270
14x14x10	355.6	273.0	279	257
14x14x8	355.6	219.1	279	248
14x14x6	355.6	168.3	279	238
16x16x14	406.4	355.6	305	305
16x16x12	406.4	323.8	305	295
16x16x10	406.4	273.0	305	283
16x16x8	406.4	219.1	305	273
16x16x6	406.4	168.3	305	264
18x18x16	457.0	406.4	343	330
18x18x14	457.0	355.6	343	330
18x18x12	457.0	323.8	343	321
18x18x10	457.0	273.0	343	308
18x18x8	457.0	219.1	343	298
20x20x18	508.0	457.0	381	368
20x20x16	508.0	406.4	381	356
20x20x14	508.0	355.6	381	356
20x20x12	508.0	323.8	381	346
20x20x10	508.0	273.0	381	333
20x20x6	508.0	291.1	381	324
22x22x20	559.0	508.0	419	406
22x22x18	559.0	457.0	419	394
22x22x16	559.0	406.4	419	381
22x22x14	559.0	355.6	419	381
22x22x12	559.0	323.8	419	371
22x22x10	559.0	273.0	419	359
24x24x22	610.0	559.0	432	432
24x24x20	610.0	508.0	432	432
24x24x16	610.0	406.4	432	406
24x24x14	610.0	355.6	432	406
24x24x12	610.0	323.8	432	397
24x24x10	610.0	273.0	432	384

All Dimensions are in MM Millimetres. All the Dimensions of Butt-Weld Fittings are as per ANSI B16.9

Concentric Reducer & Eccentric Reducer



Eccentric Reducer



Concentric Reducer

DIMENSION OF REDUCER AS PER ANSI B16.9

Nominal Pipe Size (Inch)	Outside Diameter at Bevel (OD)		Length H
	Larger End	Smaller End	
3/4 × 1/2	26.70	21.30	38.00
3/4 × 3/8	26.70	17.30	38.00
1 × 3/4	33.40	26.70	51.00
1 × 1/2	33.40	21.30	51.00
1 1/4 × 1	42.20	33.40	51.00
1 1/4 × 3/4	42.20	26.70	51.00
1 1/4 × 1/2	42.20	21.30	51.00
1 1/2 × 1 1/4	48.30	42.20	64.00
1 1/2 × 1	48.30	33.40	64.00
1 1/2 × 3/4	48.30	26.70	64.00
1 1/2 × 1/2	48.30	21.30	64.00
2 × 1 1/2	60.30	48.30	76.00
2 × 1 1/4	60.30	42.20	76.00
2 × 1	60.30	33.40	76.00
2 × 3/4	60.30	26.70	76.00
2 1/2 × 2	73.00	60.30	89.00
2 1/2 × 1 1/2	73.00	48.30	89.00
2 1/2 × 1 1/4	73.00	42.20	89.00
2 1/2 × 1	73.00	33.40	89.00
3 × 2 1/2	88.90	73.00	89.00
3 × 2	88.90	60.30	89.00
3 × 1 1/2	88.90	48.30	89.00
3 × 1 1/4	88.90	42.20	89.00
4 × 3 1/2	114.30	101.60	102.00
4 × 3	114.30	88.90	102.00
4 × 2 1/2	114.30	73.00	102.00
4 × 2	114.30	60.30	102.00
4 × 1 1/2	114.30	48.30	102.00
5 × 4	141.30	114.30	127.00
5 × 3 1/2	141.30	101.60	127.00
5 × 3	141.30	88.90	127.00
5 × 2 1/2	141.30	73.00	127.00
5 × 2	141.30	60.30	127.00
6 × 5	168.30	141.30	140.00
6 × 4	168.30	114.30	140.00
6 × 3 1/2	168.30	101.60	140.00
6 × 3	168.30	88.90	140.00
6 × 2 1/2	168.30	73.00	140.00

DIMENSION OF REDUCER AS PER ANSI B16.9

Nominal Pipe Size (Inch)	Outside Diameter at Bevel (OD)		Length H
	Larger End	Smaller End	
8 × 6	219.10	168.30	152.00
8 × 5	219.10	141.30	152.00
8 × 4	219.10	114.30	152.00
8 × 3 1/2	219.10	101.60	152.00
10 × 8	273.00	219.10	178.00
10 × 6	273.00	168.30	178.00
10 × 5	273.00	141.30	178.00
10 × 4	273.00	114.30	178.00
12 × 10	323.80	273.00	203.00
12 × 8	323.80	219.10	203.00
12 × 6	323.80	168.30	203.00
12 × 5	323.80	141.30	203.00
14 × 12	355.60	323.80	330.00
14 × 10	355.60	273.00	330.00
14 × 8	355.60	219.10	330.00
14 × 6	355.60	168.30	330.00
16 × 14	406.40	355.60	356.00
16 × 12	406.40	323.80	356.00
16 × 10	406.40	273.00	356.00
16 × 8	406.40	219.10	356.00
18 × 16	457.00	406.40	381.00
18 × 14	457.00	355.60	381.00
18 × 12	457.00	323.80	381.00
18 × 10	457.00	273.00	381.00
20 × 18	508.00	457.00	508.00
20 × 16	508.00	406.40	508.00
20 × 14	508.00	355.60	508.00
20 × 12	508.00	323.80	508.00
22 × 20	559.00	508.00	508.00
22 × 18	559.00	457.00	508.00
22 × 16	559.00	406.40	508.00
22 × 14	559.00	355.60	508.00
24 × 22	610.00	559.00	508.00
24 × 20	610.00	508.00	508.00
24 × 18	610.00	457.00	508.00
24 × 16	610.00	406.40	508.00

All Dimensions are in MM Millimetres. All the Dimensions of Butt-Weld Fittings are as per ANSI B16.9

Dimension Tolerance in Buttweld Fittings

DIMENSIONAL TOLERANCES IN MM OF BUTTWELD FITTINGS TO ANSI B 16.9

All Fittings				90° and 45° Elbows and Tees	Reducers and Lap Joints Stubs Ends	Caps	180 Degree Returns			Lap Joint Stub Ends		
Nominal Pipe Size (NPS)	Outside Diameter at Bevel (1) D	Inside Diameter at End (2), (3)	Wall Thickness (2) t	Center to End Dimension A,B,C,M.	Overall Length L.H.	Overall Length E	Center to Center Dimension O	Back to Face Dimension K	Allignment of Ends U	Outside Diameter of Lap G	Thickness of Lap T	Fillet Radius of Lap R
1/2 to 2 1/2	+1.6	±0.8	Not Less than 87.5% of Nominal Thickness	±2	±2	±3	+6	±6	±1	+0, -1	+1.6, -0	+0, -1
3 to 3 1/2	+1.6	±1.6		±2	±2	±3	+6	±6	±1	+0, -1	+1.6, -0	+0, -1
4	+1.6	±1.6		±2	±2	±3	+6	±6	±1	+0, -1	+1.6, -0	+0, -2
5 to 6	+2.4, -1.6	±1.6		±2	±2	±6	+6	±6	±1	+0, -1	+1.6, -0	+0, -2
8	'+3, -2	±1.6		±2	±2	±6	+6	±6	±1	+0, -1	+1.6, -0	+0, -2
10	+4, -3	±3.2		±2	±2	±6	+6	±6	±2	+0, -2	+3.2, -0	+0, -2
12 to 18	+4, -3	±3.2		±2	±2	±6	+10	±6	±2	+0, -2	+3.2, -0	+0, -2
20 to 24	+6.4, -4.8	±4.8		±2	±2	±6	+10	±6	±2	+0, -2	+3.2, -0	+0, -2
26 to 30	+6.4, -4.8	±4.8		±3	±5	±10	-	-	-	-	-	-
32 to 48	+6.4, -4.8	±4.8		±5	±5	±10	-	-	-	-	-	-

DIMENSIONAL TOLERANCES IN MM OF BUTTWELD FITTINGS TO ANSI B 16.9

Nominal Pipe Size (Inch)	Nominal Pipe Size (NB)	Off Angle	Off Plane
1/2" to 4"	15 - 100	1	2
5" to 8"	25 - 200	2	4
10" to 12"	250 - 300	3	5
14" to 16"	350 - 400	3	6
18" to 24"	450 - 600	4	10
26" to 30"	650 - 750	5	10
32" to 42"	800 - 1050	5	13
44" to 48"	1100 - 1200	5	19

All Dimensions are in MM Millimetres. All the Dimensions of Butt-Weld Fittings are as per ANSI B16.9



FLANGES

- Slip On Flange
- Blind Flange
- Weld Neck Flange
- Socket Weld Flange
- Threaded Flange
- Lap Joint Flange
- Screwed Flange
- Spectacle Blind Flange
- Oriface Flange

Dimension : ANSI, ASME, DIN, JIS, BD, AFNOR, AS, MSS, BS10.
Thickness : 125#, 150#, 300#, 600#, 900#, 1500#, 2000#, Table D, E, F, H, PN 6, 10, 16, 25, 40, 100, etc.
Flange Facing : Raised Faced, Flat Faced, Small & Large Male-Female, Small & Large Tongue & Groove, Ring Joint, etc.
Grade : Stainless Steel, Carbon Steel, Alloy Steel, Nickel Steel, Etc.



SORF



BLRF



LJFF

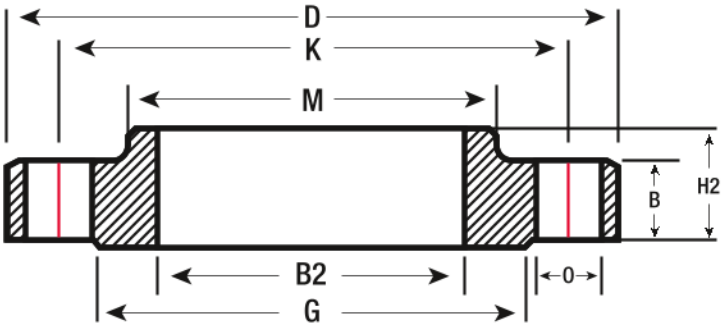


WNRF

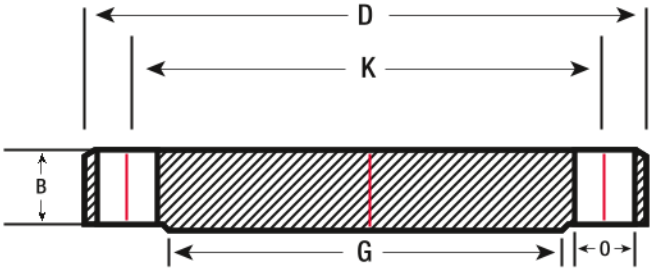


SWRF

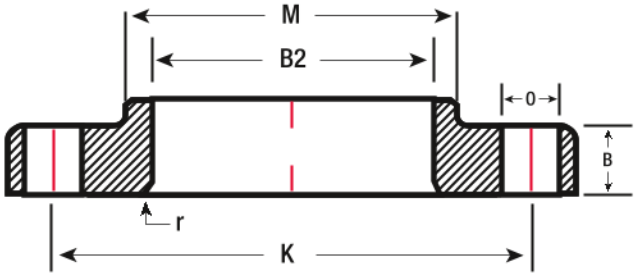
Drawing of Flange



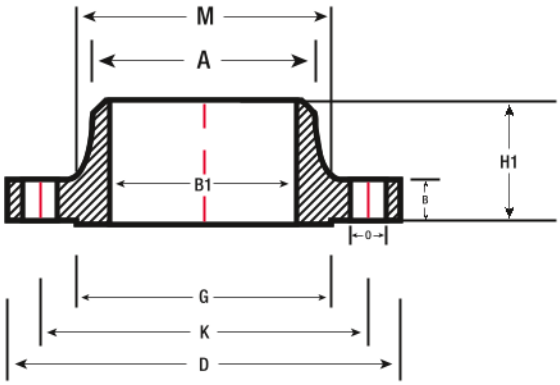
SORF



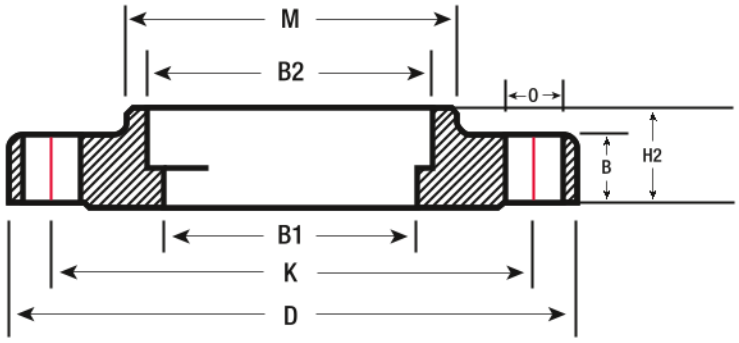
BLRF



LJFF



WNRF

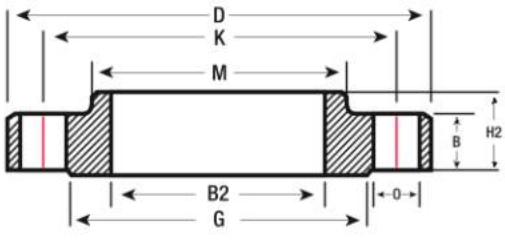


SWRF

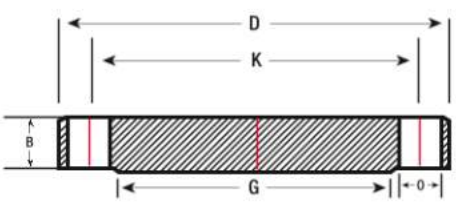
ASA 150# Flange

DIMENSION OF FLANGES AS PER ANSI B16.5															
Nominal Pipe Size		D	B	G	M	H1	H2	H3	A	B1	B2	K	N	O	DEP
Inch	mm	O.D.	THK	R.F.DIA	HUB OD	W/N	SORF	LAP JOINT	Neck OD	WNRF ID	ID SW/ LAP/SORF	PCD	NO. OF HOLES	HOLES DIA	P
1/2	15	90	11.2	34.9	30	46	14	16	21.3	15.8	22.2	60.3	4	15.9	10
3/4	20	100	12.7	42.9	38	51	14	16	26.7	20.9	27.7	69.9	4	15.9	11
1	25	110	14.3	50.8	49	54	16	17	33.4	26.6	34.5	79.4	4	15.9	13
1.1/4	32	115	15.9	63.5	59	56	19	21	42.2	35.1	43.2	88.9	4	15.9	14
1.1/2	40	125	17.5	73	65	60	21	22	48.3	40.9	49.5	98.4	4	15.9	16
2	50	150	19.1	92.1	78	62	24	25	60.3	52.5	61.9	120.7	4	19.1	17
2.1/2	65	180	22.3	104.8	90	68	27	29	73.0	62.7	74.6	139.7	4	19.1	19
3	80	190	23.9	127.0	108	68	29	30	88.9	77.9	90.7	152.4	4	19.1	21
3.1/2	90	215	23.9	139.7	122	70	30	32	101.6	90.1	103.4	177.8	8	19.1	22.3
4	100	230	23.9	157.2	135	75	32	33	114.3	102.3	116.1	190.5	8	19.1	23.8
5	125	255	23.9	185.7	164	87	35	36	141.3	128.2	143.8	215.9	8	22.2	23.8
6	150	280	25.4	215.9	192	87	38	40	168.3	154.1	170.7	241.3	8	22.2	26.9
8	200	345	28.6	269.9	246	100	43	44	219.1	202.7	221.5	298.5	8	22.2	31.7
10	250	405	30.2	323.8	305	100	48	49	273.0	254.6	276.2	362.0	12	25.4	33.2
12	300	485	31.8	381.0	365	113	54	56	323.8	304.8	327.0	431.8	12	25.4	39.6
14	350	535	35.0	412.7	400	125	56	79	355.6	355.6	359.2	476.3	12	28.6	41.4
16	400	595	36.6	469.9	457	125	62	87	406.4	387.4	410.5	539.8	16	28.6	44.4
18	450	635	39.7	533.4	505	138	67	97	457.0	438.2	461.8	577.9	16	31.8	49.2
20	500	700	42.9	584.2	559	143	71	103	508.0	489.0	513.1	635.0	20	31.8	54.1
22	550	750	46.0	641.3	610	149	79	108	558.8	539.8	564.4	692.1	20	34.9	60.4
24	600	815	47.7	692.1	663	151	81	111	610.0	590.6	616.0	749.3	20	34.9	63.5

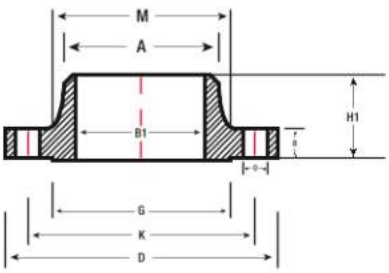
All Dimensions are in MM Millimetres. All the Dimensions of Flange are as per ANSI B16.5



SORF



BLRF

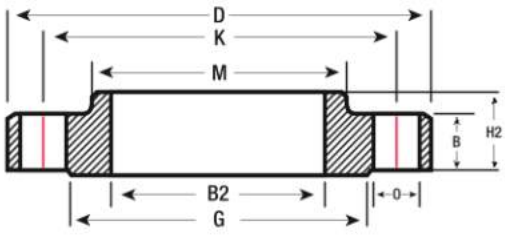


WNRF

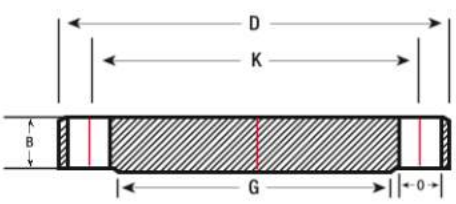
ASA 300# Flange

DIMENSION OF FLANGES AS PER ANSI B16.5																
Size		D	B	G	M	H1	H2	H3	A	B1	B2	K	N	O	P	Thread
Inch	mm	O.D.	THK	R.F.DIA	HUB OD	W/N	SORF	LAP JOINT	Neck OD	WNRF ID	ID SW/ LAP/SORF	PCD	NO.OF HOLES	HOLES DIA	DEP.	T
1/2	15	95	14.3	34.9	38	51	21	22	21.3	15.8	22.2	66.7	4	15.9	10	16
3/4	20	115	15.9	42.9	48	56	24	25	26.7	20.9	27.7	82.6	4	19.1	11	16
1	25	125	17.5	50.8	54	60	25	27	33.4	26.6	34.5	88.9	4	19.1	13	18
1.1/4	32	135	19.1	63.5	64	64	25	27	42.2	35.1	43.2	98.4	4	19.1	14	21
1.1/2	40	155	20.7	73.0	70	67	29	30	48.3	40.9	49.5	114.3	4	22.2	16	23
2	50	165	22.3	92.1	84	68	32	33	60.3	52.5	61.9	127.0	8	19.1	17	29
2.1/2	65	190	25.4	104.8	100	75	37	38	73.0	62.7	74.6	149.2	8	22.2	19	32
3	80	210	28.6	127.0	117	78	41	43	88.9	77.9	90.7	168.3	8	22.2	21	32
3.1/2	90	230	30.2	139.7	133	79	43	44	101.6	90.1	103.4	184.2	8	22.2	-	37
4	100	255	31.8	157.2	146	84	46	48	114.3	102.3	116.1	200.0	8	22.2	-	37
5	125	280	35.0	185.7	178	97	49	51	141.3	128.2	143.8	235.0	8	22.2	-	43
6	150	320	36.6	215.9	206	97	51	52	168.3	152.1	170.7	269.9	12	22.2	-	47
8	200	380	41.3	269.9	260	110	60	62	219.1	202.7	221.5	330.2	12	25.4	-	51
10	250	445	47.7	323.8	321	116	65	95	273.0	254.6	276.2	387.4	16	28.6	-	56
12	300	520	50.8	381.0	375	129	71	102	323.8	304.8	327.0	450.8	16	31.8	-	61
14	350	585	54.0	412.7	425	141	75	111	355.6	336.6	359.2	514.4	20	31.8	-	64
16	400	650	57.2	469.9	483	144	81	121	406.4	387.4	410.5	571.5	20	34.9	-	69
18	450	710	60.4	533.4	533	157	87	130	457.0	438.2	461.8	628.6	24	34.9	-	70
20	500	775	63.5	584.2	587	160	94	140	508.0	489.0	513.1	685.8	24	34.9	-	74
22	550	838	66.7	641.3	641	165	101	146	558.8	539.8	564.4	742.9	24	34.9	-	80
24	600	915	69.9	692.1	702	167	105	152	610.0	590.6	616.0	812.8	24	41.3	-	83

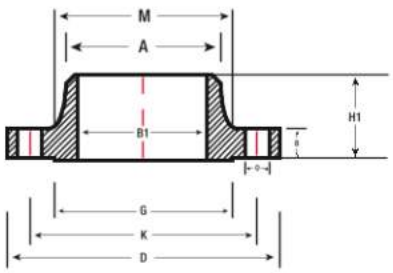
All Dimensions are in MM Millimetres. All the Dimensions of Flange are as per ANSI B16.5



SORF



BLRF

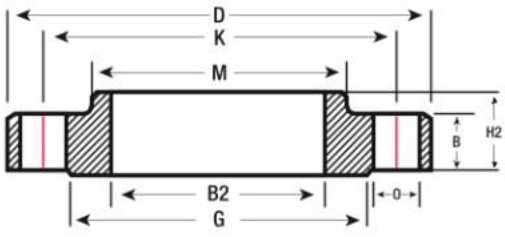


WNRF

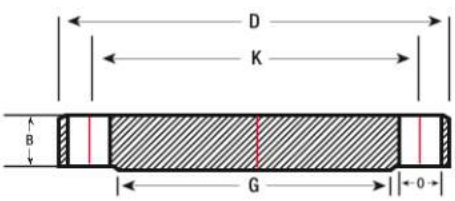
ASA 600# Flange

DIMENSION OF FLANGES AS PER ANSI B16.5																
Size		D	B	G	M	H1	H2	H3	A	B1	B2	K	N	O	P	Thread
Inch	mm	O.D.	THK	R.F.DIA	HUB OD	W/N	SORF	LAP JOINT	Neck OD	WNRF ID	ID SW/ LAP/SORF	PCD	NO.OF HOLES	HOLES DIA	DEP.	T
1/2	15	95	14.3	34.9	38	52	22	22	21.3	Depends upon the applications	22.2	66.7	4	15.9	10	16
3/4	20	115	15.9	42.9	48	57	25	25	26.7		27.7	82.6	4	19.1	11	16
1	25	125	17.5	50.8	54	62	27	27	33.4		34.5	88.9	4	19.1	13	18
1.1/4	32	135	20.7	63.5	64	67	29	29	42.2		43.2	98.4	4	19.1	14	21
1.1/2	40	155	22.3	73.0	70	70	32	32	48.3		49.5	114.3	4	22.2	16	23
2	50	165	25.4	92.1	84	73	37	37	60.3		61.9	127.0	8	19.1	17	29
2.1/2	65	190	28.6	104.8	100	79	41	41	73.0		74.6	149.2	8	22.2	19	32
3	80	210	31.8	127.0	117	83	46	46	88.9		90.7	168.3	8	22.2	21	35
3.1/2	90	230	35.0	139.7	133	86	49	49	101.6		103.4	184.2	8	25.4	-	40
4	100	275	38.1	157.2	152	102	54	54	114.3		116.1	215.9	8	25.4	-	42
5	125	330	44.5	185.7	189	114	60	60	141.3		143.8	266.7	8	28.6	-	48
6	150	335	47.7	215.9	222	117	67	67	168.3		170.7	292.1	12	28.6	-	51
8	200	420	55.6	269.9	273	133	76	76	219.1		221.5	349.2	12	31.8	-	58
10	250	510	63.5	323.8	343	152	86	111	273.0		276.2	431.8	16	34.9	-	66
12	300	560	66.7	381.0	400	156	92	117	323.8		327.0	489.0	20	34.9	-	70
14	350	605	69.9	412.7	432	165	94	127	355.6		359.2	527.0	20	38.1	-	74
16	400	685	76.2	469.9	495	178	106	140	406.4		410.5	603.2	20	41.3	-	78
18	450	745	82.6	533.4	546	184	117	152	457.0		461.8	654.0	20	44.5	-	80
20	500	815	88.9	584.2	610	190	127	165	508.0		513.1	723.9	24	44.5	-	83
22	550	870	95.2	641.3	667	197	133	174.6	558.8		564.4	777.9	24	47.6	-	92
24	600	940	101.6	692.1	718	203	140	184	610.0		616.0	838.2	24	50.8	-	93

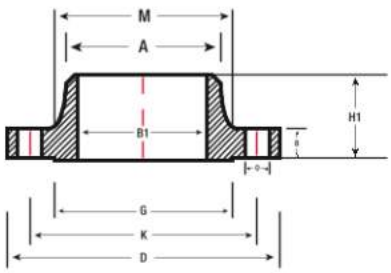
All Dimensions are in MM Millimetres. All the Dimensions of Flange are as per ANSI B16.5



SORF



BLRF



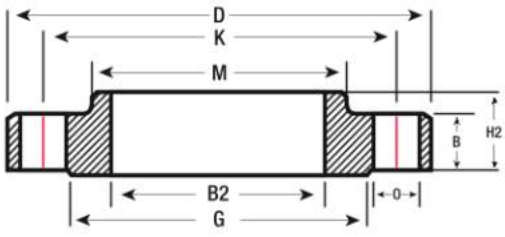
WNRF

ASA 900# Flange

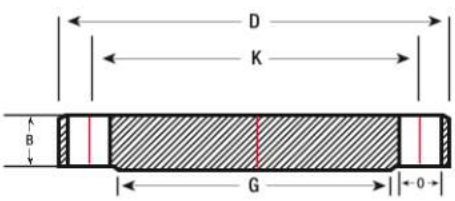
DIMENSION OF FLANGES AS PER ANSI B16.5

Size		D	B	G	M	H1	H2	H3	A	B1	B2	K	N	O	P	Thread
Inch	mm	O.D.	THK	R.F.DIA	HUB OD	W/N	SORF	LAP JOINT	Neck OD	WNRF ID	ID SW/ LAP/SORF	PCD	NO.OF HOLES	HOLES DIA	DEP.	T
1/2	15	120	22.3	34.9	38	60	32	32	21.3	Depends upon the applications	22.2	82.6	4	22.2	10	23
3/4	20	130	25.4	42.9	44	70	35	35	26.7		27.7	88.9	4	22.2	11	26
1	25	150	28.6	50.8	52	73	41	41	33.4		34.5	101.6	4	25.4	13	29
1.1/4	32	160	28.6	63.5	64	73	41	41	42.2		43.2	111.1	4	25.4	14	31
1.1/2	40	180	31.8	73	70	83	44	44	48.3		49.5	123.8	4	28.6	16	32
2	50	215	38.1	92.1	105	102	57	57	60.3		61.9	165.1	8	25.4	17	39
2.1/2	65	245	41.3	104.8	124	105	64	64	73.0		74.6	190.5	8	28.6	19	48
3	80	240	38.1	127	133.3	102	54	54	88.9		90.7	190.5	8	25.4	-	42
4	100	290	44.5	159	162	114	70	70	114.3		116.1	235.0	8	31.8	-	48
5	125	350	50.8	190	196.8	127	79	79	141.3		143.8	279.4	8	34.9	-	54
6	150	380	55.6	235	228.6	140	86	86	168.3		170.7	317.5	12	31.8	-	58
8	200	470	63.5	298	292.1	162	102	114	219.3		221.5	393.7	12	38.1	-	64
10	250	545	69.9	368	368.3	184	108	127	273.0		276.2	469.9	16	38.1	-	72
12	300	610	79.4	419	450.8	200	117	143	323.8		327.0	533.4	20	38.1	-	77
14	350	640	85.8	451	495.3	213	130	156	355.6		359.2	558.8	20	41.3	-	83
16	400	705	88.9	508	552.4	216	133	165	406.4		410.5	616.0	20	44.5	-	86
18	450	785	101.6	565	596.9	229	152	190	457		461.8	685.8	20	50.8	-	89
20	500	855	108	622	641.3	248	159	210	508		513.1	749.3	20	54.0	-	93
24	600	1040	139.7	749	762	292	203	267	610		616.0	901.7	20	66.7	-	102

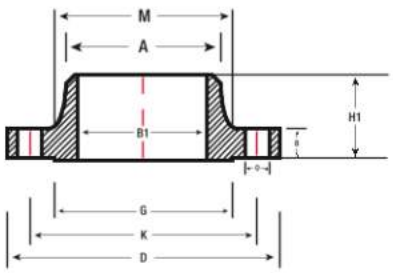
All Dimensions are in MM Millimetres. All the Dimensions of Flange are as per ANSI B16.5



SORF



BLRF

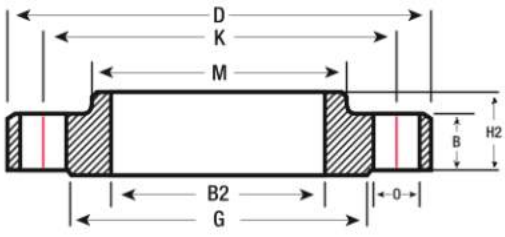


WNRF

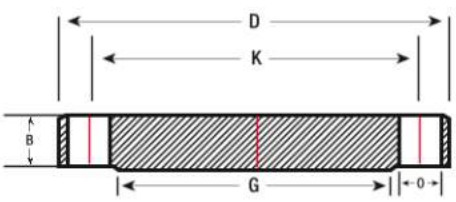
ASA 1500# Flange

DIMENSION OF FLANGES AS PER ANSI B16.5																
Size		D	B	G	M	H1	H2	H3	A	B1	B2	K	N	O	P	Thread
Inch	mm	O.D.	THK	R.F.DIA	HUB OD	W/N	SORF	LAP JOINT	Neck OD	WNRF ID	ID SW/ LAP/SORF	PCD	NO.OF HOLES	HOLES DIA	DEP.	T
1/2	15	120	22.3	34.9	38	60	32	32	21.3	Depends upon the applications	22.2	82.6	4	22.2	10	-
3/4	20	130	25.4	42.9	44	70	35	35	26.7		27.7	88.9	4	22.2	11	26
1	25	150	28.6	50.8	52	73	41	41	33.4		34.5	101.6	4	25.4	13	29
1.1/4	32	160	28.6	63.5	64	73	41	41	42.2		43.2	111.1	4	25.4	14	31
1.1/2	40	180	31.8	73.0	70	83	44	44	48.3		49.5	123.8	4	28.6	16	32
2	50	215	38.1	92.1	105	102	57	57	60.3		61.9	165.1	8	25.4	17	39
2.1/2	65	245	41.3	104.8	124	105	64	64	73		74.6	190.5	8	28.6	19	48
3	80	265	47.7	127.0	133	117	73	73	88.9		90.7	203.2	8	31.8	-	50.8
4	100	310	54.0	157.2	162	124	90.5	90	114.3		103.5	241.3	8	34.9	-	57.1
5	125	375	73.1	185.7	197	156	104.8	105	141.3		116.0	292.1	8	41.3	-	63.5
6	150	395	82.6	215.9	229	171	119.1	119	168.3		143.8	317.5	12	38.1	-	69.8
8	200	485	92.1	269.9	292	213	142.8	143	219.1		170.5	393.7	12	44.5	-	76.2
10	250	585	108.0	323.8	368	254	158.7	178	273.0		221.5	482.6	12	50.8	-	84.0
12	300	675	123.9	381.0	451	283	180.9	219	323.8		276.4	571.5	16	54.0	-	92.2
14	350	750	133.4	412.7	495	298	-	241	355.6		-	635.0	16	60.3	-	-
16	400	825	146.1	469.9	552	311	-	260	406.4		-	704.8	16	66.7	-	-
18	450	915	162.0	533.4	597	327	-	276	457.0		-	774.7	16	73.0	-	-
20	500	985	177.8	584.2	641	356	-	292	508.0		-	831.8	16	79.4	-	-
24	600	1170	203.2	692.1	762	406	-	330	610.0		-	990.6	16	92.1	-	-

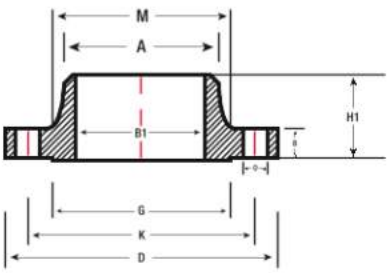
All Dimensions are in MM Millimetres. All the Dimensions of Flange are as per ANSI B16.5



SORF



BLRF



WNRF

Flange of Table D, E, F, H

TABLE - D

DIMENSION OF FLANGES AS PER ANSI B16.5						
Nominal Pipe Size		OD	P.C.D	No. of Bolt	Dia of Bolt	Thickness
Inch	mm					
1/2"	15	95.3	66.7	4	12.7	4.8
3/4"	20	101.6	73.0	4	12.7	4.8
1"	25	114.3	82.6	4	12.7	4.8
1.1/4"	32	120.7	87.3	4	12.7	6.4
1.1/2"	40	133.4	98.4	4	12.7	6.4
2"	50	152.4	114.3	4	15.9	7.9
2.1/2"	65	165.1	127.0	4	15.9	7.9
3"	80	184.2	146.1	4	15.9	9.5
3.1/2"	90	203.2	165.1	4	15.9	9.5
4"	100	215.9	177.8	4	15.9	9.5
5"	125	254.0	209.6	8	15.9	12.7
6"	150	279.4	234.9	8	15.9	12.7
7"	175	304.8	260.4	8	15.9	12.7
8"	200	336.6	292.1	8	15.9	12.7
9"	230	368.3	323.9	8	15.9	15.9
10"	250	406.4	355.6	8	19.1	15.9
12"	300	457.2	406.4	12	19.1	19.1
14"	350	527.1	469.9	12	22.2	22.2
16"	400	577.9	520.7	12	22.2	22.2
18"	450	641.4	584.2	12	22.2	25.4
20	500	704.9	641.4	16	22.5	28.6
24"	600	825.5	755.7	16	25.4	31.8

TABLE - E

DIMENSION OF FLANGES AS PER ANSI B16.5						
Nominal Pipe Size		OD	P.C.D	No. of Bolt	Dia of Bolt	Thickness
Inch	mm					
1/2"	15	95.3	66.3	4	12.7	6.4
3/4"	20	101.6	73	4	12.7	6.4
1"	25	114.3	82.6	4	12.7	7.1
1.1/4"	32	120.7	87.3	4	12.7	7.9
1.1/2"	40	133.4	98.4	4	12.7	8.7
2"	50	152.4	114.3	4	15.9	9.5
2.1/2"	65	165.1	127	4	15.9	10.3
3"	80	184.2	146.1	4	15.9	11.1
3.1/2"	90	203.2	165.1	8	15.9	11.9
4"	100	215.9	177.8	8	15.9	12.7
5"	125	254	209.6	8	15.9	14.3
6"	150	279.4	234.9	8	19.1	17.5
7"	175	304.8	260.4	8	19.1	19.1
8"	200	336.6	292.1	8	19.1	19.1
9"	230	368.3	323.9	12	19.1	20.6
10"	250	406.4	355.6	12	19.1	22.2
12"	300	457.2	406.4	12	22.2	25.4
14"	350	527.1	469.9	12	22.2	28.6
16"	400	577.9	520.7	12	22.2	31.8
18"	450	641.4	584.2	16	22.2	34.9
20	500	704.9	641.4	16	22	38.1
24"	600	825.5	755.7	16	28.6	47.6

TABLE - F

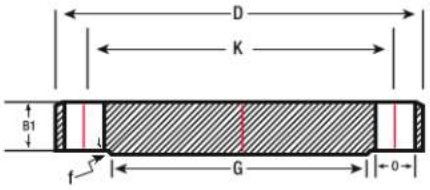
DIMENSION OF FLANGES AS PER ANSI B16.5						
Nominal Pipe Size		OD	P.C.D	No. of Bolt	Dia of Bolt	Thickness
Inch	mm					
1/2"	15	95.3	66.7	4	12.7	9.5
3/4"	20	101.6	73.0	4	12.7	9.5
1"	25	120.7	87.3	4	15.9	9.5
1.1/4"	32	133.4	98.4	4	15.9	12.7
1.1/2"	40	139.7	104.8	4	15.9	12.7
2"	50	165.1	127.0	4	15.9	15.9
2.1/2"	65	184.2	146.1	8	15.9	15.9
3"	80	203.2	165.1	8	15.9	15.9
3.1/2"	90	215.9	177.8	8	15.9	19.1
4"	100	228.6	190.5	8	15.9	19.1
5"	125	279.4	235.0	8	19.1	22.2
6"	150	304.8	260.4	12	19.1	22.2
7"	175	336.7	292.1	12	19.1	22.2
8"	200	368.3	323.8	12	19.1	25.4
9"	230	406.4	355.6	12	22.2	28.6
10"	250	431.8	381.0	12	22.2	28.6
12"	300	489.0	438.2	16	22.2	31.8
14"	350	552.5	495.3	16	25.4	34.9
16"	400	609.6	552.5	20	25.4	41.3
18"	450	673.1	609.6	20	28.6	44.5
20	500	736.6	673.1	24	28.6	50.8
24"	600	850.9	781.1	24	31.8	57.2

TABLE - H

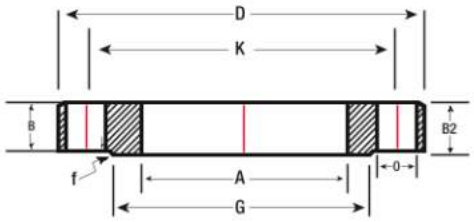
DIMENSION OF FLANGES AS PER ANSI B16.5						
Nominal Pipe Size		OD	P.C.D	No. of Bolt	Dia of Bolt	Thickness
Inch	mm					
1/2"	15	114.3	82.6	4	15.9	12.7
3/4"	20	114.3	82.6	4	15.9	12.7
1"	25	120.7	87.4	4	15.9	14.3
1.1/4"	32	133.4	98.4	4	15.9	17.5
1.1/2"	40	139.7	104.8	4	15.9	17.5
2"	50	165.1	127.0	4	15.9	19.1
2.1/2"	65	184.2	146.1	8	15.9	19.1
3"	80	203.2	165.1	8	15.9	22.2
3.1/2"	90	215.9	177.8	8	15.9	22.2
4"	100	228.6	190.5	8	15.9	25.4
5"	125	279.4	235.0	8	19.1	28.6
6"	150	304.8	260.4	12	19.1	28.6
7"	175	336.6	292.1	12	19.1	31.8
8"	200	368.3	323.9	12	19.1	31.8
9"	230	406.4	355.6	12	22.2	34.9
10"	250	431.8	381.0	12	22.2	34.9
12"	300	489.0	438.2	16	22.2	41.3
14"	350	552.5	495.3	16	25.4	47.6
16"	400	609.6	552.5	20	25.4	54.0
18"	450	673.1	609.6	20	28.6	60.3
20	500	736.6	673.1	24	28.6	66.6
24"	600	850.9	781.1	24	31.8	76.2

All Dimensions are in MM Millimetres. All the Dimensions of Flange are as per ANSI B16.5

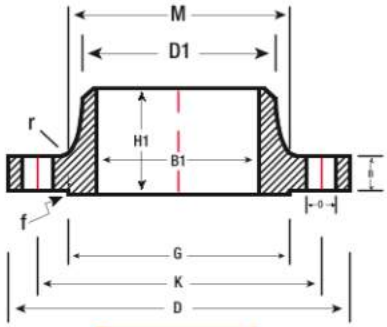
Flange PN10



BLRF



SORF



WNRF

DIMENSION IN MM OF PN 10 FLANGES

Size (NB)	D	D1	A	B	B1	B2	K	H1	M	S	R	H2	G	F	No. of Holes	Size	O
	OD	NK	ID 2576	THK 2633	THK 2527	THK	PCD	WNRF		NK THK			RF 2632	RF THK		BOLT	Hole DIA
			SORF	WNRF	BLRF	SORF		Height					WNRF				
10	90	17.2	17.7	14	14	14	60	35	28	1.8	4	6	40	2	4	M 12	14
15	95	21.3	22	14	14	14	65	35	32	2	4	6	45	2	4	M 12	14
20	105	26.9	27.6	16	16	16	75	38	40	2.3	4	6	58	2	4	M 12	14
25	115	33.7	34	16	16	16	85	38	45	3	4	6	68	2	4	M 12	14
32	140	42.4	43.1	16	16	16	100	40	56	2.6	6	6	78	2	4	M 16	18
40	150	48	49.0	16	16	16	110	42	64	3	6	7	88	3	4	M 16	18
50	165	60.3	61.1	18	18	18	125	45	75	2.9	6	8	102	3	4	M 16	18
65	185	76.1	77.1	18	18	18	145	45	90	2.9	6	10	122	3	4	M 16	18
80	200	88.9	90.3	20	20	20	160	50	105	3.2	8	10	138	3	8	M 16	18
100	220	114.3	115.9	20	20	20	180	52	131	3.6	8	12	158	3	8	M 16	18
125	250	139.5	141.6	22	22	22	210	55	156	4.0	8	12	188	3	8	M 16	18
150	285	168.3	170.5	22	22	22	240	55	184	4.5	10	12	212	3	8	M 20	22
175	315	193.7	196.1	24	24	24	270	60	210	5.4	10	12	242	3	8	M 20	22
200	340	219.1	221.8	24	24	24	295	62	235	5.9	10	16	268	3	8	M 20	22
250	395	273.0	276.2	26	26	26	350	68	292	6.3	12	16	320	3	12	M 20	22
300	445	323.9	327.6	26	26	26	400	68	344	7.1	12	16	370	4	12	M 20	22
350	505	355.6	359.7	26	26	26	460	68	385	7.1	12	16	430	4	16	M 20	22
400	565	406.4	411.0	26	26	32	515	72	440	7.1	12	16	482	4	16	M 24	26
450	615	457.0	462.5	28		38	565	72	488	7.1	12	16	532	4	20	M 24	26
500	670	508.0	513.6	28	28	38	620	75	542	7.1	12	16	585	4	20	M 24	26
600	780	610.0		28			725	80	642	7.1	12	18	685	5	20	M 27	30

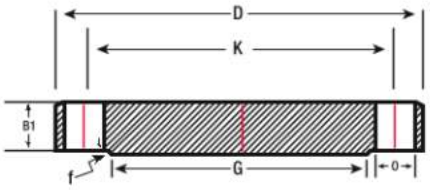
All Dimensions are in MM Millimetres. All the Dimensions of Flange are as per ANSI B16.5



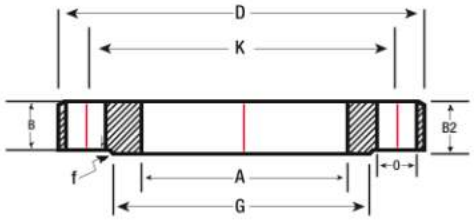




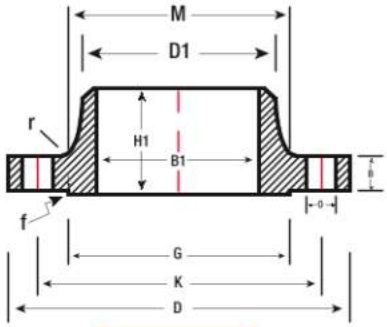
Flange PN16



BLRF



SORF



WNRF

DIMENSION IN MM OF PN 16 FLANGES

Size (NB)	D	D1	A	B	B1	B2	K	H1	M	S	R	H2	G	F	No. of Holes	Size	O
	OD	NK OD	ID	THK 2633	THK 2527	THK	PCD	WNRF		NK THK			RF 2633	RF THK		BOLT	Hole DIA
			SORF	WNRF	BLRF	SORF		Height					WNRF				
10	90	17.2	17.7	14	14	14	60	35	28	1.8	4	6	40	2	4	M 12	14
15	95	21.3	22	14	14	14	65	35	32	2	4	6	45	2	4	M 12	14
20	105	26.9	27.6	16	16	16	75	38	40	2.3	4	6	58	2	4	M 12	14
25	115	33.7	34	16	16	16	85	38	45	2.6	4	6	68	2	4	M 12	14
32	140	42.4	43.1	16	16	16	100	40	56	2.6	6	6	78	2	4	M 16	18
40	150	48.3	49.0	16	16	16	110	42	64	2.6	6	7	88	3	4	M 16	18
50	165	60.3	61.1	18	18	18	125	45	75	2.9	6	8	102	3	4	M 16	18
65	185	76.1	77.1	18	18	18	145	45	90	2.9	6	10	122	3	4	M 16	18
80	200	88.9	90.3	20	20	20	160	50	105	3.2	8	10	138	3	8	M 16	18
100	220	114.3	115.9	20	20	20	180	52	131	3.6	8	12	158	3	8	M 16	18
125	250	139.5	141.6	22	22	22	210	55	156	4	8	12	188	3	8	M 16	18
150	285	168.3	170.5	22	22	22	240	55	184	4.5	10	12	212	3	8	M 20	22
175	315	193.7	196.1	24	24	24	270	60	210	5.4	10	12	242	3	8	M 20	22
200	340	219.1	221.8	24	24	24	295	62	235	5.9	10	16	268	3	8	M 20	22
250	405	273	276.2	26	26	26	355	70	292	6.3	12	16	320	3	12	M 24	26
300	460	323.9	327.6	28	28	28	410	78	344	7.1	12	16	378	4	12	M 24	26
350	520	355.6	359.7	30	30	30	470	82	390	8	12	16	438	4	16	M 24	26
400	580	406.4	411.0	32	32	32	525	85	445	8	12	16	490	4	16	M 27	30
450	640	457	462.5	34		34	585	85	490	8	12	16	550	4	20	M 27	30
500	715	508	513.6	34	34	34	650	90	548	8	12	16	610	4	20	M 30	33
600	840	610		36			770	95	652	8.8	12		725	5	20	M 33	36

All Dimensions are in MM Millimetres. All the Dimensions of Flange are as per ANSI B16.5







Dimension Tolerances for Forged Flange As per ANSI B16.5

DIMENSIONAL TOLERANCES FOR FORGED FLANGES AS PER ANSI B 16.5 - 2013			
WELD NECK			
Outside Diameter	NPS ≤ 5" NPS ≥ 6"	+2.0 mm +4.0 mm	- 1.0 mm - 1.0 mm
Inside Diameter	NPS ≤ 10" 12" ≤ NPS ≤ 18"	+1.0 mm +1.5 mm	-1.0 mm -1.5 mm
	NPS ≥ TO 20"	+3.0mm	-1.5 mm
Diameter of Contact Face	1.58 mm RF (150# & 300#)	+10mm	-1.0mm
	6.35mm RF Tongue & Groove & Femae (Above300#)	+0.5 mm	-0.5 mm
Drilling	Bolt Circle Diameter Bolt Hole to Bolt Hole	+1.5 mm +0.8 mm	-1.5 mm -0.8 mm
Bolt Circle Concentricity	NPS ≤ 2.1/2" NPS ≥ 3"	0.8mm (Max) 1.5 mm (Max)	
Length Thru. HUB	NPS ≤ 4" 5" ≤ NPS ≤ 10" NPS ≥ 12"	+1.5 mm +1.5 mm +3.0 mm	-1.5 mm -3.0 mm -5.0 mm
Thickness	NPS ≤ 18" NPS ≥ 20"	+3.0 mm +5.0 mm	-0.0 mm -0.0 mm

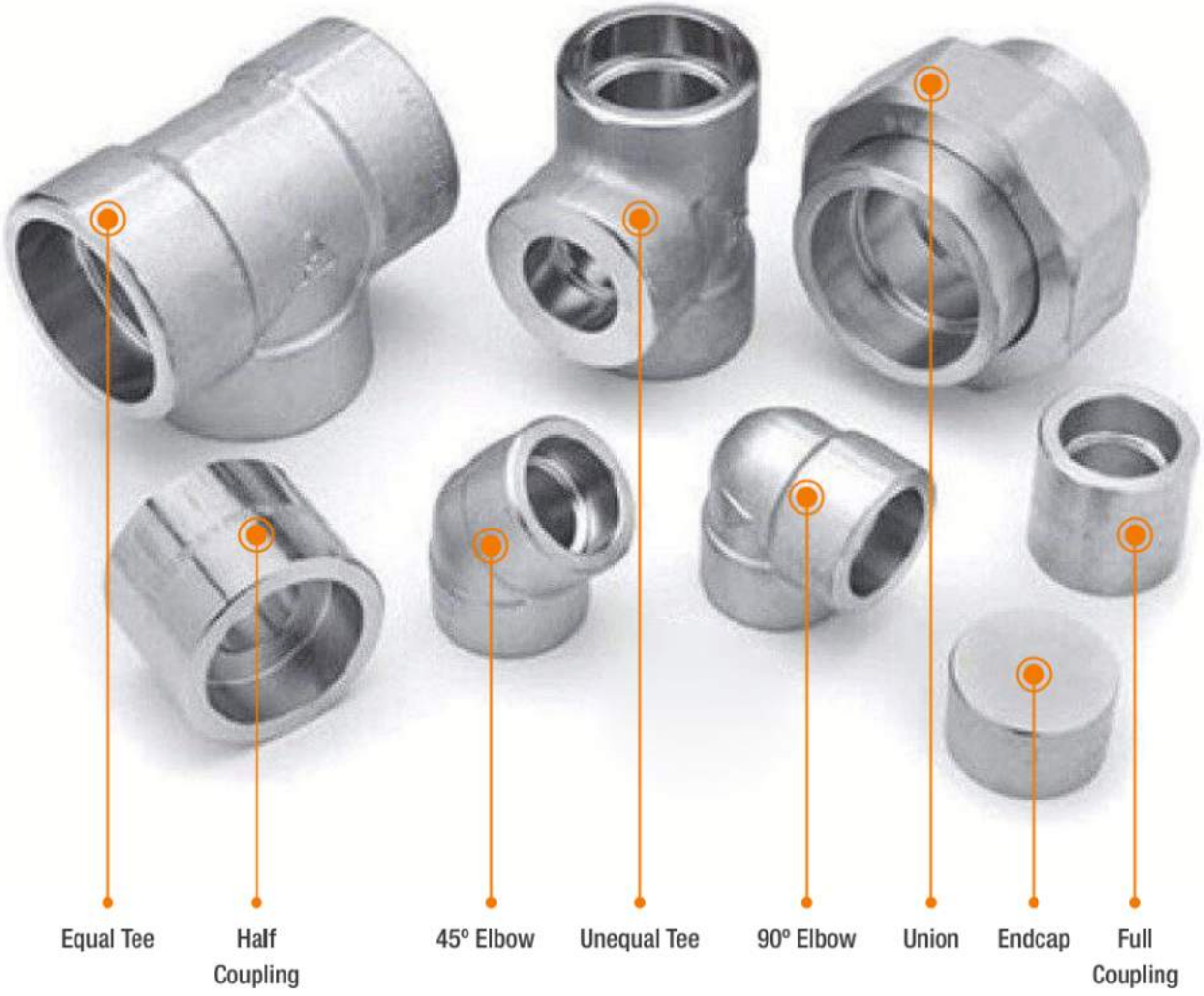
DIMENSIONAL TOLERANCES FOR FORGED FLANGES AS PER ANSI B 16.5 - 2013			
THREAD, SLIP-ON, LAP JOINT AND BLIND FLANGES			
Ouside Diameter	NPS ≤ 5" NPS ≥ 6"	+2.0 mm +4.0 mm	-1.0 mm -1.0 mm
Inside Diameter	NPS ≤ 10" NPS ≥ 12"	+1.0 mm +1.5 mm	-0.0 mm -0.0 mm
Diameter of Contact Face	15 8mm RF (150# & 300#)	+1.0 mm	-0.0 mm
	6.35mm RF Tongue & Groove & Femae (Above 300#)	+0.5 mm	-0.5 mm
Drilling	Bolt Circle Diameter Bolt Hole to Bolt Hole	+1.5 mm +0.8 mm	-1.5 mm -0.8 mm
Bolt Circle Concentricity	NPS ≤ 2.12" NPS ≥ 3	0.8 mm (Max) 1.5 mm (Max)	
Length Thru. HUB	NPS ≤ 4" 5" ≤ NPS ≤10" NPS ≥ 12"	+1.5 mm +1.5 mm +3.0 mm	-1.5 mm -3.0 mm -5.0 mm
Thickness	NPS ≤ 18" NPS ≥ 20"	+3.0 mm +5.0 mm	-0.0 mm -0.0 mm

All Dimensions are in MM Millimetres. All the Dimensions of Flange are as per ANSI B16.5

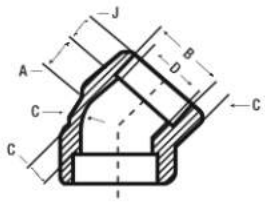
FORGED FITTINGS

- 45° Elbow & 90° Elbow
- Equal Tee & Unequal Tee
- Full Coupling & Half Coupling
- Plug
- Nipple

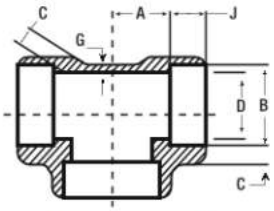
Size : ¼" to 4"
Dimension : ANSI, ASME, DIN, JIS, MSS, ETC.
Thickness : 3000#, 6000#, 9000#, Any Other Special Thickness.
Grade : Stainless Steel, Carbon Steel, Alloy Steel, Nickel Steel, Etc.



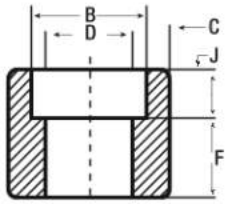
Socket Weld Fittings



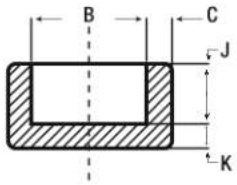
45° Elbow



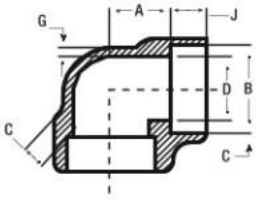
Tee



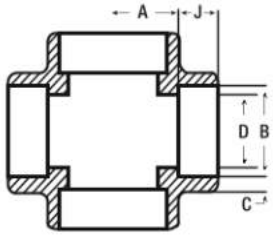
Half Coupling



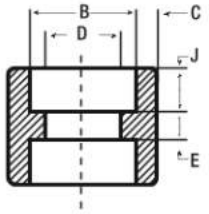
End Cap



90° Elbow



Cross



Coupling

Dimensions of Socket Weld Fittings as per ANSI B16.11

Nom Pipe Size	Socket Bore Dia B Note 1	Bore Diameter of Fitting D			Socket Wall Thickness - C Note 2						Body Wal Thickness-G			Depth of Socket Min-J	Centre to Bottom of Socket-A						Coup-ling E	Half Coupling F	End to End L	Width A/F nut
					3000		6000		9000						90° Elbow / Tees and Crosses			45' Elbows						
		3000	6000	9000	Ave.	Min	Ave.	Min	Ave.	Min	Min	Min	Min		3000	6000	9000	3000	6000	9000				
1/8	10.90 10.65	7.6 6.1	4.8 3.2	0	3.20	3.20	3.95	3.45	-	-	2.40	3.15		10	12 10	12 10		9 7	9 7		8 5	17 15	37	32
1/4	14.35 14.10	10.0 8.5	7.1 5.6	0	3.80	3.30	4.60	4.00			3.00	3.70		10	12 10	17 13	0	9 7	9 7	0	8 5	17 15	37	32
3/8	17.80 17.55	13.3 11.8	9.9 8.4		4.00	3.50	5.05	4.35			3.20	4.00		10	15 12	17 14	0	9 6	13 10		9 3	19 16	37	36
1/2	21.95 21.70	16.6 15.0	12.5 11.0	7.2 5.6	4.65	4.10	5.95	5.20	9.35	8.20	3.75	4.80	7.45	10	17 14	21 18	27 24	13 10	14 11	17 14	13 6	24 21	37	43
3/4	27.30 27.05	21.7 20.2	16.3 14.8	11.8 10.3	4.90	4.25	6.95	6.05	9.80	8.55	3.90	5.55	7.80	13	21 18	24 21	30 27	14 11	16 13	21 17	13 6	25 22	38	50
1	34.05 33.80	27.4 25.9	21.5 19.9	16.0 14.5	5.70	5.00	7.90	6.95	11.40	9.95	4.55	6.35	9.10	13	24 20	29 25	34 30	16 12	19 15	23 19	17 9	31 27	46	60
1.1/4	42.80 42.55	35.8 34.3	30.2 28.7	23.5 22.0	6.05	5.30	7.90	6.95	12.15	10.60	4.85	6.35	9.70	13	29 25	34 30	37 33	19 15	23 19	24 20	17 9	32 28	52	70
1.1/2	58.90 47.65	41.7 40.1	34.7 33.2	28.7 27.2	6.35	5.55	8.90	7.80	12.70	11.15	5.10	7.15	10.15	13	34 30	40 36	40 36	23 19	27 23	28 23	17 9	34 30	54	78
2	61.35 61.10	53.5 51.7	43.6 42.1	38.9 37.4	6.95	6.05	10.90	9.50	13.85	12.15	5.55	8.75	11.05	16	40 36	43 39	56 52	27 23	31 27	31 26	23 15	43 39	56	95
2.1/2	74.20 73.80	64.2 61.2			8.75	7.65					7.00			16	44 39			31 27			24 14	45 40	68	125
3	90.15 89.80	79.5 79.4			9.50	8.30					7.60			16	60 55			34 29			24 14"	47 42	99	140
4	115.80 115.45	103.8 100.7			10.70	9.35					8.55			19	69 64			44 39			24 14	50 45		

Note: (1) Upper and lower values for each size are the respective maximum and minimum dimensions.
(2) Average of socket wall thickness around periphery shall be no less than listed values. The minimum values are permitted in localized areas.

General Note:

1. All Dimensions are in MM Millimetres. All the Dimensions of Socket Weld Fittings are as per ANSI B16.11
2. Average of socket wall thickness around periphery shall not be less than listed values. The minimum values are permitted in localized areas.
3. The Upper Value and Lower Value of each size are the respective maximum & minimum dimensions.

Pipe Dimension Chart

SS PIPE DIMENSION CHART AS PER ANSI B 36.19

NOMINAL PIPE SIZE	NB	O.D.MM	NOMINAL WALL THICKNESS & WEIGHTS						
			5S	10S	20S	40 / 40S		80 / 80S		160
1/8"	6 NB	10.3		1.24 0.28	1.55 0.33	1.73 0.37		2.41 0.47		
1/4"	8 NB	13.7		1.65 0.49	2.00 0.58	2.24 0.63		3.02 0.80		
3/8"	10 NB	17.1		1.65 0.63	2.00 0.74	2.31 0.84		3.20 1.10		
1/2"	15 NB	21.3	1.65 0.80	2.11 1.00	2.30 1.07	2.77 1.27		3.73 1.62		4.78 1.95
3/4"	20 NB	26.7	1.65 1.03	2.11 1.28	2.55 1.52	2.87 1.69		3.91 2.20		5.56 2.90
1"	25 NB	33.4	1.65 1.30	2.77 2.09	3.00 2.25	3.38 2.50		4.55 3.24		6.35 4.24
1 1/4"	32 NB	42.16	1.65 1.65	2.77 2.70	3.00 2.90	3.56 3.39		4.85 4.77		6.35 5.61
1 1/2"	40 NB	48.26	1.65 1.91	2.77 3.11	3.00 3.35	3.68 4.05		5.08 5.41		7.14 7.25
2"	50 NB	60.3	1.65 2.40	2.77 3.93	3.00 4.24	3.91 5.44		5.54 7.48		8.74 11.11
2 1/2"	65 NB	73	2.11 3.69	3.05 5.26	4.00 6.81	5.16 8.63		7.01 11.41		9.53 14.92
3"	80 NB	88.9	2.11 4.51	3.05 6.45	4.00 8.37	5.49 11.29		7.62 15.27		11.13 21.35
3 1/2"	90 NB	101.6	2.11 5.18	3.05 7.40		5.74 13.57		8.08 18.63		
4"	100 NB	114.3	2.11 5.84	3.05 8.36	4.50 12.18	6.02 16.07		8.56 22.32		13.49 33.54
5"	125 NB	141.3	2.77 9.47	3.40 11.57	5.00 16.80	6.55 21.77		9.53 30.97		15.88 49.11
6"	150 NB	168.3	2.77 11.32	3.40 13.84	6.35 25.36	7.11 28.26		10.97 42.56		18.26 67.56
8"	200 NB	219.1	2.77 14.79	3.76 19.96	6.35 33.31	8.18 42.55		12.70 64.64		23.01 111.27
10"	250 NB	273	3.40 22.63	4.19 27.78	6.35 41.77	9.27 0.31		12.70 81.55	15.09 96.01	28.58 172.33
12'	300 NB	323.9	3.96 31.25	4.57 36.00	6.35 49.70	9.53 73.88	10.31 79.73	12.70 97.46	17.48 132.08	33.32 238.76
14"	350 NB	355.6	3.96 34.36	4.78 41.30	7.29 67.90	9.53 81.33	11.13 94.55	12.70 107.39	19.05 158.10	35.71 281.70
16"	400 NB	406.4	4.19 41.56	4.78 47.29	7.29 77.82	9.53 93.27	12.70 123.30	12.70 123.30	21.44 203.53	40.49 365.35
18"	450 NB	457	4.19 46.81	4.78 53.26	7.29 87.74	9.53 105.16	14.27 155.80	12.70 139.15	23.83 254.55	45.24 459.37
20"	500 NB	508	4.78 59.25	5.54 68.61	9.53 117.14	9.53 117.15	15.09 183.42	12.70 155.12	26.19 311.17	50.01 564.81
22"	550 NB	559	4.78 65.24	5.54 75.53		9.53 129.13		12.70 171.09	28.58 373.83	53.98 672.26
24"	600 NB	610	5.54 82.47	6.35 94.53	9.53 114.11	9.53 141.12	17.48 255.41	12.70 187.06	30.96 442.08	59.54 808.22
26"	650 NB	660				9.53 152.87		12.70 202.72		
28"	700 NB	711				9.53 164.85		12.70 218.69		
30"	750 NB	762	6.35 118.31	7.92 147.28		9.53 176.84		12.70 234.67		
32"	800 NB	813				9.53 188.82	17.48 34.91	12.70 250.64		

UPPER VALUE - THICKNESS | LOWER VALUE - WEIGHT

RATE = WEIGHT X PER KG RATE

All Dimensions are in MM Millimetres.

CERTIFICATIONS & APPROVALS



GLOBA

Declaration of Compliance

Name & Address of Manufacturer:

MRB FORGE & FITTINGS LLP

Plot No. 56, Kamla Amrut Industrial Park, Opp. Torrent Pharma, Ahmedabad-Mehsana Highway, Village-Indrad, Ta.-Kadi, Dist.- Mehsana-382715, Gujarat, India.

This is to certify that the manufacturer has implemented and applied QA System.

Applied Pressure Equipment Directive 2014/68/EU

System Acc. To Ch. 7/4-3, article 4.2 and AD- 2000 Merkblatt W0.

For Following Scope:

Manufacturer of Stainless Steel, Carbon Steel, Alloy Steel & Nickel Alloy Pipe Fittings and Flanges.

Production Site:

Plot No. 56, Kamla Amrut Industrial Park, Opp. Torrent Pharma, Ahmedabad-Mehsana Highway, Village-Indrad, Ta.-Kadi, Dist.- Mehsana-382715, Gujarat, India.

Certificate No. : 1011-PED-BA-03-1202-SIAC-01243-IN

This certificate is valid from 25-Mar-2021 until 24-Mar-2024 and remain valid subject to satisfactory Annual surveillance audits. Certification expiry on 24-Mar-2024.

The validity of the certificate is connected to a valid certification accordance with ISO 9001 : 2015.

Head – Certification
(Vessel Equipment)
Gulf Lloyds Business Assurance

СВИДЕТЕЛЬСТВО | CERTIFICATE | CERTIFICAT | CERTIFICATO | ZERTIFIKAT | شهادة



GLOBA

MANAGEMENT SYSTEM CERTIFICATE

This is to certify that Quality Management System of

MRB FORGE & FITTINGS LLP

Plot No. 56, Kamla Amrut Industrial Park, Opp. Torrent Pharma, Ahmedabad-Mehsana Highway, Village-Indrad, Ta.-Kadi, Dist.- Mehsana-382715, Gujarat, India.

Has been assessed and found to conform to the requirements of

ISO 9001 : 2015

For Following Scope:

Manufacturer, Supplier and Exporter of Stainless Steel, Carbon Steel, Alloy Steel & Nickel Alloy Pipe Fittings and Flanges.

Certificate No. : 1011-QMS-BA-03-1202-SIAC-01240-IN

This certificate is valid from 18-Mar-2021 until 18-Mar-2024 and remain valid subject to satisfactory surveillance audits on 17-Mar-2022 and 17-Mar-2023. Recertification audit due on 18-Mar-2024. Certification expiry on 17-Mar-2024.

Certification Manager
Gulf Lloyds Business Assurance

ISO 9001 : 2015



GLOBA

MANAGEMENT SYSTEM CERTIFICATE

This is to certify that Environmental Management System of

MRB FORGE & FITTINGS LLP

Plot No. 56, Kamla Amrut Industrial Park, Opp. Torrent Pharma, Ahmedabad-Mehsana Highway, Village-Indrad, Ta.-Kadi, Dist.- Mehsana-382715, Gujarat, India.

Has been assessed and found to conform to the requirements of

ISO 14001 : 2015

For Following Scope:

Manufacturer, Supplier and Exporter of Stainless Steel, Carbon Steel, Alloy Steel & Nickel Alloy Pipe Fittings and Flanges.

Certificate No. : 1011-EMS-BA-03-1202-SIAC-01241-IN

This certificate is valid from 18-Mar-2021 until 18-Mar-2024 and remain valid subject to satisfactory surveillance audits on 17-Mar-2022 and 17-Mar-2023. Re-certification audit due on 18-Mar-2024. Certification expiry on 17-Mar-2024.

Certification Manager
Gulf Lloyds Business Assurance

ISO 14001 : 2015



GLOBA

MANAGEMENT SYSTEM CERTIFICATE

This is to certify that Occupational Health and Safety Management System of

MRB FORGE & FITTINGS LLP

Plot No. 56, Kamla Amrut Industrial Park, Opp. Torrent Pharma, Ahmedabad-Mehsana Highway, Village-Indrad, Ta.-Kadi, Dist.- Mehsana-382715, Gujarat, India.

Has been assessed and found to conform to the requirements of

ISO 45001 : 2018

For Following Scope:

Manufacturer, Supplier and Exporter of Stainless Steel, Carbon Steel, Alloy Steel & Nickel Alloy Pipe Fittings and Flanges.

Certificate No. : 1011-OHSMS-BA-03-1202-SIAC-01242-IN

This certificate is valid from 18-Mar-2021 until 18-Mar-2024 and remain valid subject to satisfactory surveillance audits on 17-Mar-2022 and 17-Mar-2023. Re-certification audit due on 18-Mar-2024. Certification expiry on 17-Mar-2024.

Certification Manager
Gulf Lloyds Business Assurance

ISO 45001 : 2018



GLIS

Certificate No : GLIS/AHD/WRBF/2021/03/MCC-5879 GL Ref. No: 101-091-1202-03-0344

APPROVAL OF MATERIAL MANUFACTURER

This is to Certify that :

M/s. MRB FORGE & FITTINGS LLP.
Plot No. 56, Kamla Amrut Industrial Park, Opp. Torrent Pharma,
Ahmedabad-Mehsana Highway, Village-Indrad, Ta.-Kadi, Dist.- Mehsana-382715, Gujarat, India.

has been approved as a manufacturer in accordance with the requirements of International Code / Standards & Gulf Lloyds Guidelines in f. Following items:

Sr. No.	Product Name	Type	Manufacturing Range	Material Specification
01	Stainless Steel Pipe Fittings	Elbow, Bends, Reducer, Tee, Cap, Lateral	1/2" to 48"	Stainless Steel, A 312/A 358, Grade TP 304/304L, 304H, 316/316L, 316H, 317/317L, 321, 321H, 347, 347H, 348, 348H, 904L, 2205, 2507
			1/2" to 48"	Duplex Steel, UNS S31803, S32205, S32750, S32760, S32550, S32520, S32707
			1/2" to 48"	Super Duplex Steel, UNS S32750, S32760, S32550, S32520, S32707
			1/2" to 48"	Alloy Steel, A 234 / WPA, WPB, WPC, WP1, WP5, WP9, WP11, WP22, WP91, P5, P9, P11, P22, P91
			1/2" to 48"	Carbon Steel, A 234 / WPB, WPC, WPL6, LF2, A 420 / WPL6
02	Forged Fittings	Socket weld, Threaded, Elbow, Tee, Cap, Coupling, Reducer, Hex Plug, Union	1/8" to 4"	Stainless Steel, A 182 / F 304, 304L, 304H, 316, 316L, 316H, 317, 317L, 321, 321H, 347, 347H, 348, 348H, 904L, 2205, 2507
			1/8" to 4"	Duplex Steel, UNS S31803, S32205, S32750, S32760, S32550, S32520, S32707
			1/8" to 4"	Super Duplex Steel, UNS S32750, S32760, S32550, S32520, S32707
			1/8" to 4"	Alloy Steel, A 182 / F 5, F 9, F 11, F 22, F 91
			1/8" to 4"	Carbon Steel, A 105
03	Forged Fittings	Socket weld, Threaded, Elbow, Tee, Cap, Coupling, Reducer, Hex Plug, Union	1/8" to 4"	Stainless Steel, A 182 / F 304, 304L, 304H, 316, 316L, 316H, 317, 317L, 321, 321H, 347, 347H, 348, 348H, 904L, 2205, 2507
			1/8" to 4"	Duplex Steel, UNS S31803, S32205, S32750, S32760, S32550, S32520, S32707
			1/8" to 4"	Super Duplex Steel, UNS S32750, S32760, S32550, S32520, S32707
			1/8" to 4"	Alloy Steel, A 182 / F 5, F 9, F 11, F 22, F 91
			1/8" to 4"	Carbon Steel, A 105
04	Forged Fittings	Socket weld, Threaded, Elbow, Tee, Cap, Coupling, Reducer, Hex Plug, Union	1/8" to 4"	Stainless Steel, A 182 / F 304, 304L, 304H, 316, 316L, 316H, 317, 317L, 321, 321H, 347, 347H, 348, 348H, 904L, 2205, 2507
			1/8" to 4"	Duplex Steel, UNS S31803, S32205, S32750, S32760, S32550, S32520, S32707
			1/8" to 4"	Super Duplex Steel, UNS S32750, S32760, S32550, S32520, S32707
			1/8" to 4"	Alloy Steel, A 182 / F 5, F 9, F 11, F 22, F 91
			1/8" to 4"	Carbon Steel, A 105
05	Flanges (Slip On, Weld Neck, Blind, Socket Weld, Lap Joint)	Flanges	1/2" to 24"	Stainless Steel, A 182 / F 304, 304L, 304H, 316, 316L, 316H, 317, 317L, 321, 321H, 347, 347H, 348, 348H, 904L, 2205, 2507
			1/2" to 24"	Duplex Steel, UNS S31803, S32205, S32750, S32760, S32550, S32520, S32707
			1/2" to 24"	Super Duplex Steel, UNS S32750, S32760, S32550, S32520, S32707
			1/2" to 24"	Alloy Steel, A 182 / F 5, F 9, F 11, F 22, F 91
			1/2" to 24"	Carbon Steel, A 105

This Certificate / Approval is subject to compliance with the Rules for the Manufacturing, Testing and Certification of Material. GLIS (India) Pvt. Ltd. to be notified of any changes that may affect the validity of this certificate. This certificate is issued to the above Manufacturer and is valid until the dated given below.

Date of Initial Issued : 29 March 2018
Date of Renewal : 27 March 2021
Date of Expiry : 28 March 2024

Issued at: Ahmedabad — 27-03-2021

Place — Date — Manager-Inspection

H.O.(INDIA): Gulf Lloyds Industrial Services (India) Pvt. Ltd.



Office of the Director of Boiler,Gujarat State

3rd Floor, D Block, Dabasali Bhawan,Sanjeevani Mill Compound, Asarwa, Girdharnagar Ahmedabad- 380016.
e-mail - dirboiler-lab-dshl@gujarat.gov.in & Web site :- http://www.boiler.gujarat.gov.in

No. DOB/TECH/2020/CAI/AI2020-2021/0000625 Date:15/10/2020

To,
MRB FORGE AND FITTINGS LLP,
PLOT NO 56, KAMLA AMRUT INDUSTRIAL PARK, OPP TORRENT PHARMA,
VILLAGE INDRAD, TALUKA KADI,382715

Sub : New Approval of your workshop for **Manufacturing of Elbow, Tee, Reducer, End Cap & Plate Flanges up to 12", Nipple & Socket weld coupling up to 2"** under inspection of IBR -1950 Code.

Ref: 1. Your application no:A/0/2020-2021/0000/0/0 dtd. 10-08-2020
2. This office Inward no.20200810CIB1251/79/0/0 dtd. 10-08-2020
3. Visit dtd. 06-10-2020 of Shri J G Bhatt Assistant Director of boilers-Mahesana on for verification of Workshop Facilities,Staff,Tools & Tackles & their letter no. A/0/CH20-2021/0000/0/0 dtd.15-10-2020
4. Government of Gujarat Notification No. GR - 2007 - 73 - IBR. - 1099 - 1055 (1) - M - (3) dtd. 31/05/2007

Sir,

With reference to above your subject & referd letter you are permitted for **Manufacturing of Elbow, Tee, Reducer, End Cap & Plate Flanges up to 12" , Nipple & Socket weld coupling up to 2"** under inspection of IBR -1950 for **Two year .** i.e from **15/10/2020** to **14/10/2022** subject to conditions as per Annexture.

Online receipt No.1545196 of Rs.10000.00 dtd.22/09/2020 for registration fees is received. Also you shall apply for renewal of firm recognition at least two months before the expiry of said period.

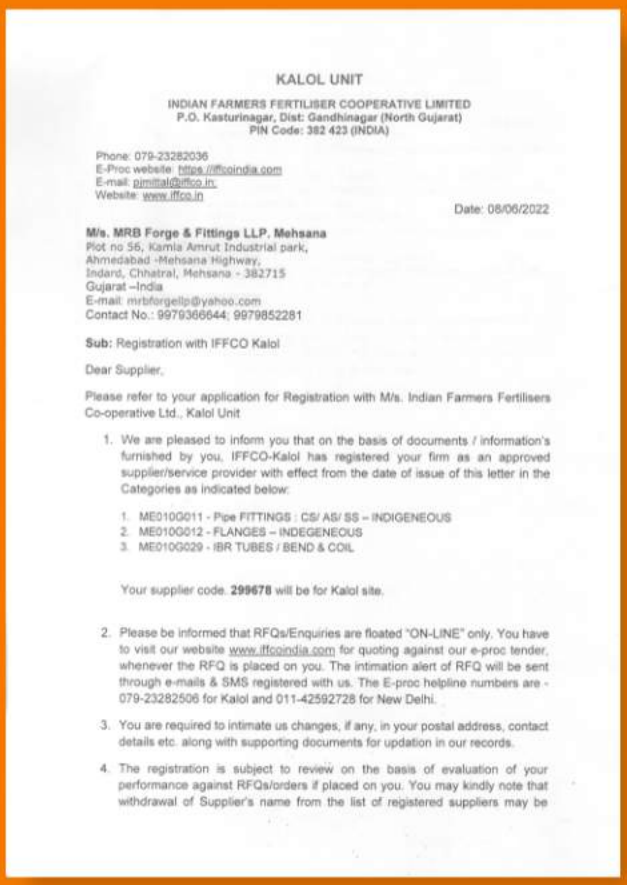
Yours Faithfully,
Not Verified
Digitally signed by Shri R.K.Tyagi
Date: 15-10-2020 17:10:39
Shri R.K.Tyagi
Director of Boilers,
Gujarat State, Ahmedabad.

Copy to: D.O.B : TECH /2020 -CAI/AI2020-2021/0000625 15/10/2020 Dated
Shri J. G. Bhatt, Assistant Director of Boilers, Mehsana Division for information and necessary action

IBR Approved

APPROVED VENDOR

IFFCO



KALOL UNIT

INDIAN FARMERS FERTILISER COOPERATIVE LIMITED
P.O. Kasturinagar, Dist: Gandhinagar (North Gujarat)
PIN Code: 382 423 (INDIA)

Phone: 079-23282036
E-Proc website: https://iffcoindia.com
E-mail: pimittal@iffco.in;
Website: www.iffco.in

Date: 08/06/2022

M/s. MRB Forge & Fittings LLP, Mehsana
Plot no 56, Kamla Amrut Industrial park,
Ahmedabad -Mehsana Highway,
Indard, Chhatral, Mehsana - 382715
Gujarat –India
E-mail: mrbforgellp@yahoo.com
Contact No.: 9979366644; 9979852281

Sub: Registration with IFFCO Kalol

Dear Supplier,

Please refer to your application for Registration with M/s. Indian Farmers Fertilisers Co-operative Ltd., Kalol Unit

1. We are pleased to inform you that on the basis of documents / information's furnished by you, IFFCO-Kalol has registered your firm as an approved supplier/service provider with effect from the date of issue of this letter in the Categories as indicated below:

   1. ME010G011 - Pipe FITTINGS : CS/ AS/ SS – INDIGENEOUS
   2. ME010G012 - FLANGES – INDEGENEOUS
   3. ME010G029 - IBR TUBES / BEND & COIL

   Your supplier code. **299678** will be for Kalol site.

2. Please be informed that RFQs/Enquiries are floated "ON-LINE" only. You have to visit our website www.iffcoindia.com for quoting against our e-proc tender, whenever the RFQ is placed on you. The intimation alert of RFQ will be sent through e-mails & SMS registered with us. The E-proc helpline numbers are - 079-23282506 for Kalol and 011-42592728 for New Delhi.
3. You are required to intimate us changes, if any, in your postal address, contact details etc. along with supporting documents for updation in our records.
4. The registration is subject to review on the basis of evaluation of your performance against RFQs/orders if placed on you. You may kindly note that withdrawal of Supplier's name from the list of registered suppliers may be ordered by competent authority without any liability – financial / or otherwise on our part in the event of occurrence of any of the following:

   a) If you fail to adhere to any / all terms and conditions of Tender enquiry.
   b) If you modify rates after opening of price bids.
   c) If you fail to execute a contract/supply after getting order/contract within time.
   d) If you are declared bankrupt or undergoing Arbitration with IFFCO.
   e) If you are supplying inferior material and fail to replace the rejected material within reasonable period.
   f) If you fail to quote in response to RFQ on five successive occasions.
   g) Raising false bills or duplicate bills after receiving payment of original bills.
   h) Placed on Holiday by other Government agencies.
   i) Any other ground which in the opinion of competent authority; render retention undesirable in the interest of IFFCO.

5. Being registered is no guarantee to issue an enquiry/order relating to the accepted products. The registration shall not bind INDIAN FARMERS FERTLISER CO-OPERATIVE LIMITED to give you any priority or preference in placement of purchase orders or assured business.

For Indian Farmers Fertiliser Co-Operative Ltd

P Mittal

JGM (Materials)
IFFCO, KALOL

WE ARE COMMITTED TO CUSTOMER SATISFACTION.



QUALITY POLICY

At MRB, Product Quality is our main Concern. Our employees adhere to and contribute to the efficiency of our quality system in every aspect of our business. This is achieved through a team approach where all the members are aware of the company objectives and work within their own discipline to make an effective contribution.

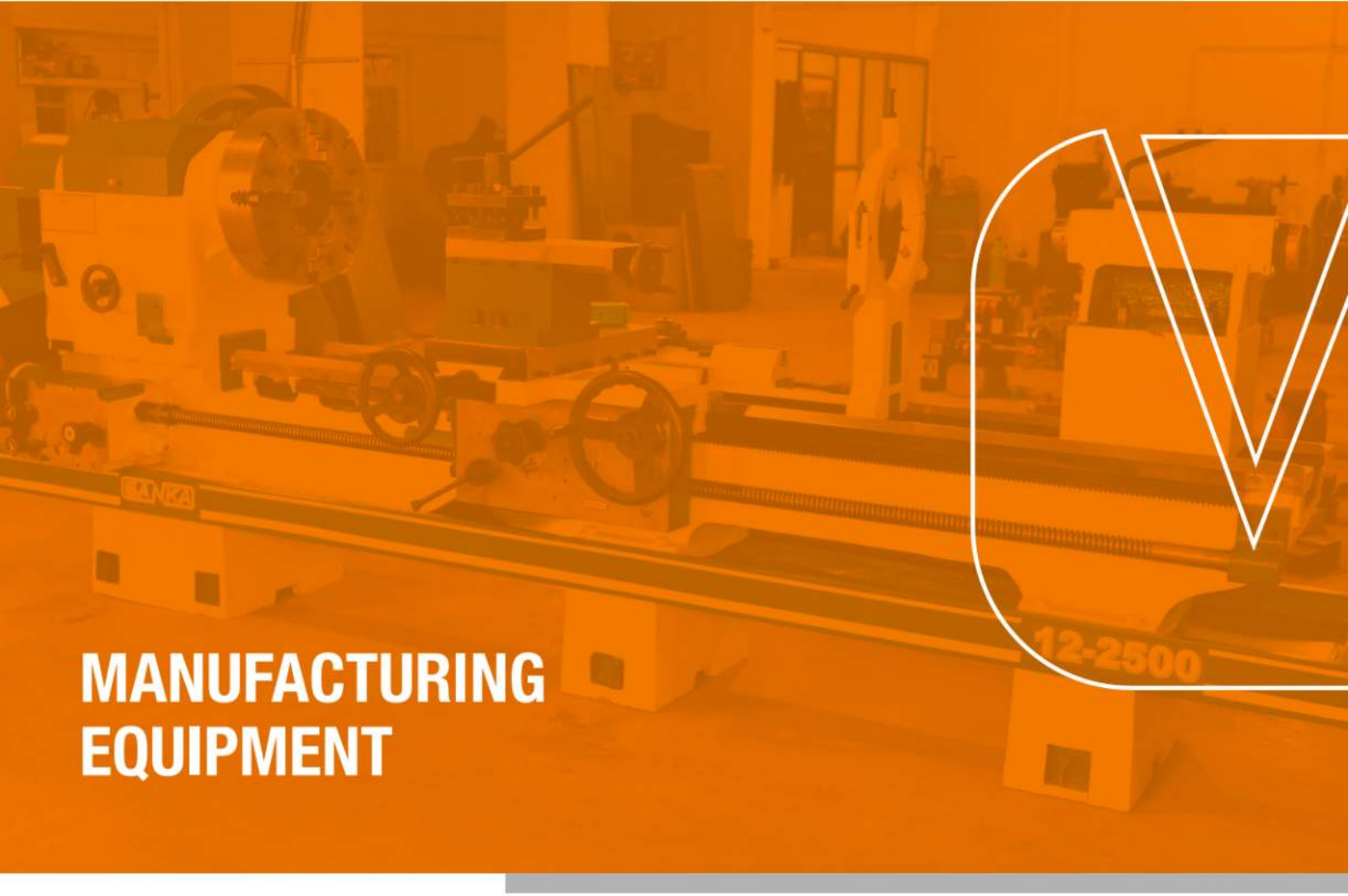
To achieve this commitment, **We at MRB** -

- Make it priority to know our customers and their operations thoroughly, through ongoing open communication.
- Provide timely, accurate design services and value-added solutions to meet the specific needs of each customer.
- Deliver effective technical solutions to our customers through an easily accessible and responsive customer service network.
- Promote an organizational culture of innovation by continuously evaluating and improving our products, processes and systems, thereby enhancing the value provided to our customers.
- Establish and maintain a Quality Management System in compliance with the requirements of ISO 9001:2008, regularly measuring and reviewing its results and continuously seeking to advance its effectiveness.
- Ensure that our Quality Policy and Mission Statement is communicated, understood and adhered to at all levels of the organization through an ongoing program of training, education and reinforcement.

Quality Control - MRB employs strict quality control techniques to ensure that our products have exact dimensions and mechanical properties. Ensures that each product pass through the following procedures:

1) Material Control System
2) Process Control System
3) Machining and Dimensional Control
4) PMI, other Supplementary Test, & MTC
5) Finishing, Marking, Packaging and Dispatching

Quality Assurance - The quality Control system is directed by principle of every effort to keep our commitments and work with Integrity. We are putting constant efforts for developing the technology and equipment in the business to provide best quality products at the most Competitive prices to our customer.



MANUFACTURING EQUIPMENT

- COLD FORMING ELBOW MACHINE
- HOT FORMING ELBOW MACHINE
- COLD FORMING TEE MACHINE
- CNC MACHINE
- VMC MACHINE
- BEVELLING MACHINE
- HYDRUALLIC PRESS MACHINE
- SHOT BLASTING MACHINE
- HEAVY LATHE MACHINE
- SMALL LATHE MACHINE
- CUTTING MACHINE
- FURNACE FOR HEAT TREATMENT
- ALL TYPES OF TESTING TOOLS & EQUIPMENTS (SPECTRO, PMI, & HARDNESS, ETC.)
- WELDIG MACHINE (LINCOLIN BRAND)
- PRINTING MACHINE (LAZER & INK JET)



MANUFACTURER & EXPORTER OF PIPE FITTINGS & FLANGES IN STAINLESS STEEL, CARBON STEEL & ALLOY STEEL.

APPLICATIONS













- Pharmaceutical Industry
- Petrochemical Industry
- Oil & Natural Gas Refineries
- Paper Industry
- Automobile Industries
- Food Industries
- Textile Industries
- Cement Industries
- Chemical & Fertilisers Industry
- Power Industry
- Projects











SOLUTION FOR EXCELLENCE

MRB FORGE & FITTINGS LLP.

Corporate Office

8, Lalabholelal's, Opp. Keshav Estate,
Nr. Kewal Kanta, Nagarwel Hanuman Road,
Rakhial, Ahmedabad.-380023. (Gujarat)

Manufacturing Unit

Plot No. 56, Kamla - Amrut Industrial Park,
Opp. Torrent Pharma, Ahmedabad - Mehsana Highway,
Village: Indrad, Taluka: Kadi, Gujarat - India.

Contact Details

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Web : www.mrbmetals.com