BHAGYALAXMI INDUSTRIAL

We Stand Ahead In Quality...

PRODUCT CATALOGUE

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BHAGYALAXMI INDUSTRIAL

We Stand Ahead In Quality...

ABOUT US

OUR COMPANY

Bhagyalaxmi Industrial has earned an outstanding reputation as a Quality & cost efficient manufacturer for Butt-weld pipe Fittings, High pressure forged Socketweld & Threaded Fittings & Flanges. Today with our Strong fundamentals in manufacturing, marketing, customer care and backed by 20 years of hardcore experience & expertise, we are in position to cater to any demand in any part of the world.

AREA OF APPLICATION

- Oil & Gas
- Petrochemicals
- Organic Chemicals
- Power Plants
- Pulp & Paper Plant
- Acid Industries
- Cement Plants
- Water Treatments
- Textile & Rubber
- Pharmaceutical
- Food & Beverages
- Water Piping Systems
- Sugar
- Heavy Engineering
- Pipe Lines

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ABS

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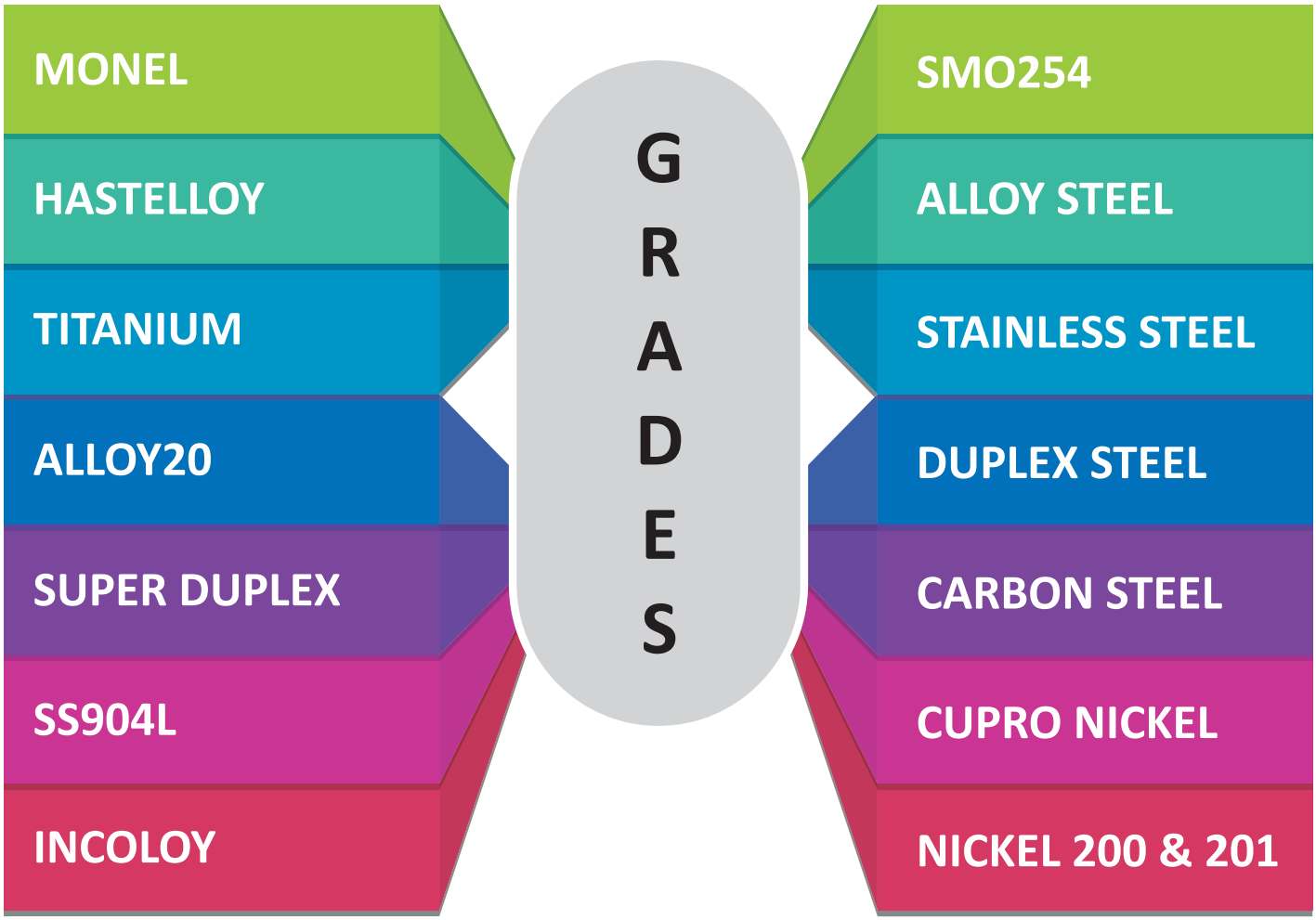
GRADES



Stainless Steel	:	304, 304L, 316, 316L, 316Ti, 321, 321H, 310, UNS S31254, 904L
Duplex & Super Duplex	:	UNS S31803, UNS S32205, UNS S32750, UNS S32760.
Hastelloy Alloy	:	Hastelloy B2, Hastelloy C276, Hastelloy C22.
Incoloy Alloys	:	Alloy 800H/800HT, Alloy 825.
Inconel Alloys	:	Alloy 600, Alloy 601, Alloy 625, Alloy 718, Alloy 725.
Monel Alloys	:	Monel 400, Monel K500.
Titanium	:	Grade 1, 2 & 5.
Nickel	:	Alloy 200 & Alloy 201.
Copper / Cupro Nickel	:	90/10 (UNS C70600), 70/30 (UNS C71500).
Carbon Steel	:	A234 & A105

PIPES

Stainless Steel Seamless Pipe

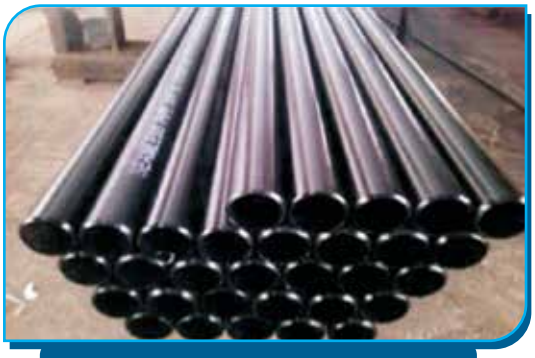
Stainless Steel Tubes

Stainless Steel Square Pipes

Stainless Steel Polished Pipe

Stainless Steel Welded Tubes

Galvanized Pipes [Gi Pipes]



Carbon Steel Seamless Pipe

Carbon Steel Welded Pipes

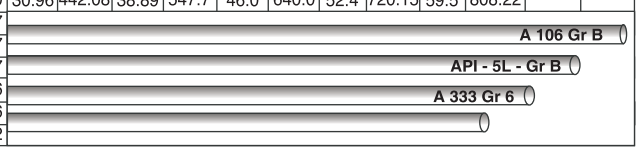
BHAGYALAXMI INDUSTRIAL

STAINLESS STEEL PIPE DIMENSION & WEIGHT-KG. PER MTR. (ANSI B36.19)

Nominal Bore		Outside Diameter	Schedule 5S		Schedule 10S		Schedule 40S		Schedule 80S		Schedule 160S		Schedule XXS	
mm	INCH	mm	Wt mm	Weight (Kg/mt)	Wt mm	Weight (Kg/mt)	Wt mm	Weight (Kg/mt)	Wt mm	Weight (Kg/mt)	Wt mm	Weight (Kg/mt)	Wt mm	Weight (Kg/mt)
3	1/8	10.3	1.24	0.276	1.24	0.28	1.73	0.37	2.41	0.47	-	-	-	-
6	1/4	13.7	1.24	0.390	1.65	0.49	2.24	0.631	3.02	0.80	-	-	-	-
10	3/8	17.1	1.24	0.490	1.65	0.63	2.31	0.845	3.20	1.10	-	-	-	-
15	1/2	21.3	1.65	0.800	2.11	1.00	2.77	1.27	3.75	1.62	4.75	1.94	7.47	2.55
20	3/4	26.7	1.65	1.03	2.11	1.28	2.87	1.68	3.91	2.20	5.54	2.89	7.82	3.63
25	1	33.4	1.65	1.30	2.77	2.09	3.38	2.50	4.55	3.24	6.35	4.24	9.09	5.45
32	1 1/4	42.2	1.65	1.65	2.77	2.70	3.56	3.38	4.85	4.47	6.35	5.61	9.70	7.77
40	1 1/2	48.3	1.65	1.91	2.77	3.11	3.68	4.05	5.08	5.41	7.14	7.25	10.16	9.54
50	2	60.3	1.65	2.40	2.77	3.93	3.91	5.44	5.54	7.48	8.74	11.1	11.07	13.44
65	2 1/2	73.0	2.11	3.69	3.05	5.26	5.16	8.63	7.01	11.4	9.53	14.9	14.2	20.39
80	3	88.9	2.11	4.51	3.05	6.45	5.49	11.30	7.62	15.2	11.1	21.3	15.24	27.65
100	4	114.3	2.11	5.84	3.05	8.36	6.02	16.07	8.56	22.3	13.49	33.54	17.12	41.03
125	5	141.3	2.77	9.47	3.40	11.57	6.55	21.8	9.53	31.97	15.88	49.11	19.05	57.43
150	6	168.3	2.77	11.32	3.40	13.84	7.11	28.3	10.97	42.7	18.2	67.56	21.95	79.22
200	8	219.1	2.77	14.79	3.76	19.96	8.18	42.6	12.7	64.6	23.0	111.2	22.23	107.8
250	10	273.1	3.40	22.63	4.19	27.78	9.27	60.5	12.7	96.0	28.6	172.4	25.40	155.15
300	12	323.9	3.96	31.25	4.57	36.00	9.52	73.88	12.7	132.0	33.32	238.76	25.40	186.97
350	14	355.6	3.96	34.36	4.78	41.3	11.13	94.59	19.05	158.08	35.71	281.70	-	-
400	16	406.4	4.19	41.56	4.78	47.29	12.7	123.30	21.41	203.33	40.46	365.11	-	-
450	18	457.2	4.19	46.80	4.78	53.42	14.27	155.80	23.8	254.36	45.71	466.40	-	-
500	20	508.0	4.78	59.25	5.54	68.71	15.09	183.42	26.19	311.2	49.99	564.68	-	-
600	24	609.6	5.54	82.47	6.35	94.45	17.48	255.41	30.96	442.08	59.54	808.22	-	-

CARBON STEEL SEAMLESS PIPE DIMENSION & WEIGHT - KG. PER MTR. (ANSI B 36.10)

Nominal Pipe size		O/D	Schedule 10		Schedule 20		Schedule 30		Schedule STD		Schedule 40		Schedule 60		Schedule Extra Strong (XS)		Schedule 80		Schedule 100		Schedule 120		Schedule 140		Schedule 160		Schedule Double Extra Strong(XXS)	
mm	inch	mm	mm	kg/m	mm	kg/m	mm	kg/m	wall	wt.	wall	wt.	wall	wt.	wall	wt.	wall	wt.	wall	wt.	wall	wt.	wall	wt.	wall	wt.	wall	wt.
3	1/8	10.3							1.73	0.37	1.73	0.37			2.41	0.47	2.41	0.47										
6	1/4	13.7							2.24	0.63	2.24	0.63			3.02	0.80	3.02	0.80										
10	3/8	17.1							2.31	0.84	2.31	0.84			3.20	1.10	3.20	1.10										
15	1/2	21.3							2.77	1.27	2.77	1.27			3.73	1.62	3.73	1.62							4.78	1.95	7.5	2.55
20	3/4	26.7							2.87	1.69	2.87	1.69			3.91	2.20	3.91	2.20							5.6	2.90	7.82	3.64
25	1	33.4							3.38	2.50	3.38	2.50			4.55	3.24	4.55	3.24							6.35	4.24	9.1	5.45
32	1□	42.2							3.56	3.39	3.56	3.39			4.85	4.47	4.85	4.47							6.35	5.61	9.7	7.77
40	1□	48.3							3.68	4.05	3.68	4.05			5.08	5.41	5.08	5.41							7.14	7.25	10.2	9.56
50	2	60.3							3.91	5.44	3.91	5.44			5.54	7.48	5.54	7.48							8.74	11.11	11.07	13.4
65	2□	73.0							5.16	8.63	5.16	8.63			7.01	11.41	7.01	11.41							9.53	14.92	14.0	20.4
80	3	88.9							5.49	11.3	5.49	11.3			7.62	15.27	7.62	15.3							11.13	21.35	15.24	27.7
90	3□	101.6							5.74	13.57	5.74	13.57			8.08	18.63	8.08	18.63							-		16.2	34.1
100	4	114.3							6.02	16.07	6.02	16.07			8.56	22.3	8.56	22.3			11.13	28.32			13.5	33.5	17.12	41.03
125	5	141.3							6.55	21.77	6.55	21.77			9.53	30.9	9.53	30.9			12.7	40.2			15.9	49.11	19.0	57.4
150	6	168.3							7.11	28.26	7.11	28.26			10.97	42.5	10.97	42.5			14.3	54.2			18.3	67.5	21.95	79.22
200	8	219.1			6.35	33.3	7.0	36.8	8.18	42.5	8.18	42.55	10.31	53.10	12.7	64.6	12.7	64.5	15.1	75.92	18.3	90.4	20.6	100.9	23.0	111.27	22.23	108.0
250	10	273.0			6.35	41.7	7.8	51.3	9.27	60.3	9.27	60.31	12.70	81.50	12.7	81.5	15.1	96.0	18.3	114.7	21.44	133.0	25.4	155	28.6	172.3	25.4	155.0
300	12	323.9			6.35	49.7	8.4	65.2	9.53	73.8	10.31	79.73	14.30	109.0	12.7	97.4	17.5	132.0	21.4	160.0	25.4	187.0	28.6	208	33.3	238.7	25.4	187.0
350	14	355.6	6.35	54.6	7.92	67.9	9.53	81.3	9.53	81.3	11.13	94.55	15.10	126.4	12.7	107.4	19.0	158.0	23.8	195.0	27.8	224.0	31.8	253.5	35.7	281.7		
400	16	406.4	6.35	62.6	7.92	77.9	9.53	93.3	9.53	93.3	12.7	123.3	16.70	160.0	12.7	123.3	21.44	203.5	26.2	245.5	30.9	286.6	36.53	333	40.5	365.4		
450	18	457.0	6.35	70.5	7.92	87.7	11.13	122.4	9.53	105.0	14.27	156.0	19.05	206.0	12.7	139.0	23.8	254.6	29.36	309.6	34.9	363.6	39.7	408.3	45.2	459.4		
500	20	508.0	6.35	78.5	9.53	117.2	12.7	155.1	9.53	117.2	15.09	183.4	20.62	248.5	12.7	155.1	26.2	311.2	32.54	381.5	38.1	441.5	44.4	508	50.0	564.8		
550	22	559.0	6.35	86.5	9.53	129.0	12.7	171.0	9.53	129.0			22.20	294.0	12.7	171.0	28.6	373.8	34.9	451.4	41.3	527.0	47.6	600	54.0	672.0		
600	24	610.0	6.35	94.5	9.53	141.0	14.3	209.7	9.53	141.0	17.48	255.4	24.61	355.0	12.7	187.0	30.96	442.08	38.89	547.7	46.0	640.0	52.4	720.15	59.5	808.22		
650	26	660.0	7.92	127.0	12.7	203.0			9.53	153.0					12.7	202.7												
700	28	711.0	7.92	137.4	12.7	218.7	15.88	271.2	9.53	165.0					12.7	218.7												
750	30	762.0	7.92	147.3	12.7	234.6	15.88	292.18	9.53	176.8					12.7	234.7												
800	32	813.0	7.92	157.0	12.7	250.6	15.88	312.0	9.53	188.2	17.48	342.9			12.7	250.6												
850	34	864.0	7.92	167.0	12.7	266.6	15.88	332.1	9.53	200.3	17.48	364.9			12.7	266.6												
900	36	914.4	7.92	176.9	12.7	282.3	15.88	351.7	9.53	212.5	19.05	420.4			12.7	282.2												



BUTTWELD PIPE FITTINGS

90° Elbow

45° Elbow

U Bend

Piggable Bend

Concentric Reducer

Eccentric Reducer

Equal Tee

Unequal Tee

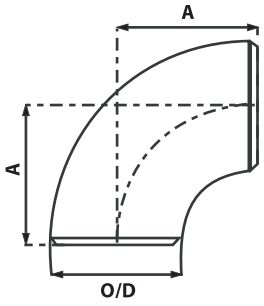
Stubends

Caps

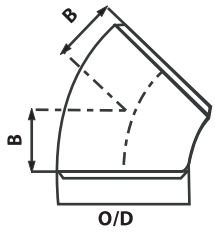
Barrel Nipple

Dairy Fittings

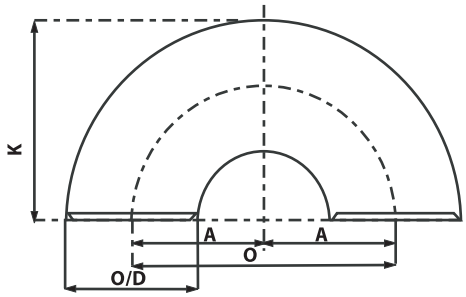
LR ELBOW & LR RETURN / U BEND



90° LR ELBOW



45 ° LR ELBOW



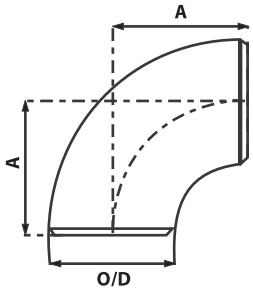
180 ° LR RETURN / U BEND

B16.9

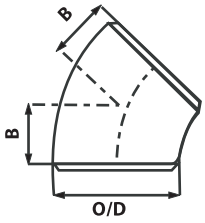
Nominal Pipe Size (NPS)	Outside Diameter at Bevel (O/D)	Dimension A	Dimension B	Center to Center O	Back to Face K
1/2"	21.3	38	16	76	48
3/4”	26.7	38	19	76	51
1”	33.4	38	22	76	56
1.1/4”	42.2	48	25	95	70
1.1/2”	48.3	57	29	114	83
2”	60.3	76	35	152	106
2.1/2”	73.0	95	44	190	132
3”	88.9	114	51	229	159
3.1/2”	101.6	133	57	267	184
4”	114.3	152	64	305	210
5”	141.3	190	79	381	262
6”	168.3	229	95	457	313
8”	219.1	305	127	610	414
10”	273.0	381	159	762	518
12”	323.8	457	190	914	619
14”	355.6	533	222	1067	711
16”	406.4	610	254	1219	813
18”	457.0	686	286	1372	914
20”	508.0	762	318	1524	1016
22”	559.0	838	343	1676	1118
24”	610.0	914	381	1829	1219
26"	660.0	991	406	.....	....
28"	711.0	1067	438	.....	.....
30"	762.0	1143	470	.....	.....
32"	813.0	1219	502	.....	.....
34"	864.0	1295	533	.....	.....
36"	914.0	1372	565	....	.....

Note : All Dimensions are in millimeters (mm)
Dimension for 40” and above on request.

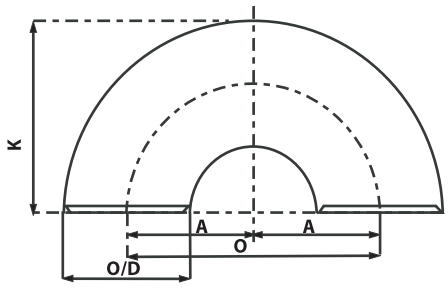
SR ELBOW & SR RETURN BEND



90° SR ELBOW



45°SR ELBOW



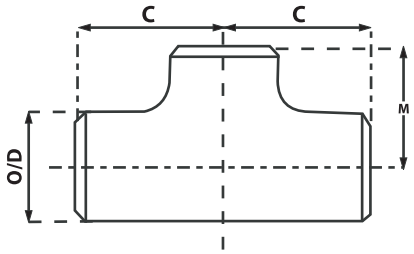
180° SR RETURN BEND

B16.9 / B16.28

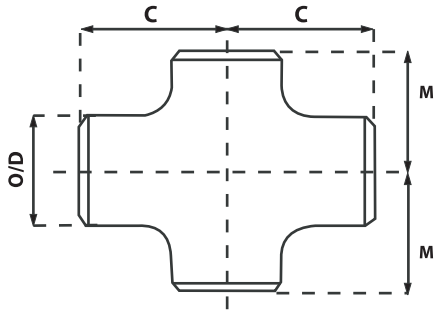
Nominal Pipe Size (NPS)	Outside Diameter at Bevel (O/D)	Dimension A	Dimension B	Center to Center O	Back to Face K
1/2"	21.3	.....	.....	.....	.....
3/4"	26.7	.....	.....	.....	....
1"	33.4	25	....	51	41
1.1/4"	42.2	32	....	64	52
1.1/2"	48.3	38	....	76	62
2"	60.3	51	...	102	81
2.1/2"	73.0	64	....	127	100
3"	88.9	76	31.6	152	121
3.1/2"	101.6	89	36.8	178	140
4"	114.3	102	42.1	203	159
5"	141.3	127	52.6	254	197
6"	168.3	152	63.4	305	237
8"	219.1	203	84.2	406	313
10"	273.0	254	105.2	508	391
12"	323.8	305	126.3	610	467
14"	355.6	356	147.3	711	533
16"	406.4	406	168.3	813	610
18"	457.0	457	189.4	914	686
20"	508.0	508	210.4	1016	762
22"	559.0	559	231.5	1118	838
24"	610.0	610	252.5	1219	914

Note : All Dimensions are in millimeters (mm)

EQUAL TEE & CROSS



EQUAL TEE



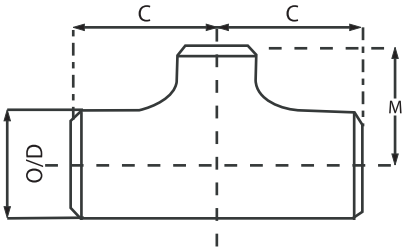
CROSS

B16.9

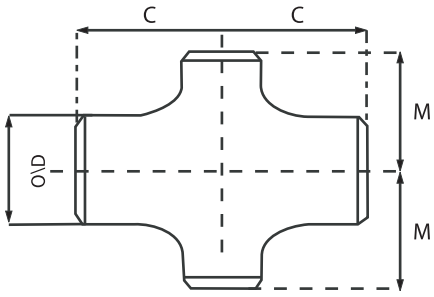
Nominal Pipe Size (NPS)	Outside Diameter at Bevel (O/D)	Run 'C'	Outlet 'M'
1/2"	21.3	25	25
3/4"	26.7	29	29
1"	33.4	38	38
1.1/4"	42.2	48	48
1.1/2"	48.3	57	57
2"	60.3	64	64
2.1/2"	73.0	76	76
3"	88.9	86	86
3.1/2"	101.6	95	95
4"	114.3	105	105
5"	141.3	124	124
6"	168.3	143	143
8"	219.1	178	178
10"	273.0	216	216
12"	323.8	254	254
14"	355.6	279	279
16"	406.4	305	305
18"	457.0	343	343
20"	508.0	381	381
22"	559.0	419	419
24"	610.0	432	432
26"	660.0	495	495
28"	711.0	521	521
30"	762.0	559	559
32"	813.0	597	597
34"	864.0	635	635
36"	914.0	673	673

Note : All Dimensions are in millimeters (mm)
Dimension for 40" and above on request.

UNEQUAL TEE & UNEQUAL CROSS



UNEQUAL TEE



CROSS UNEQUAL

B16.9

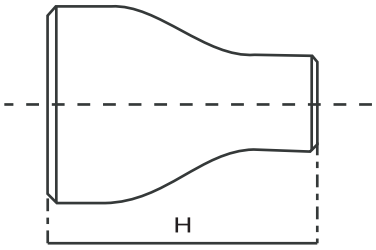
Nominal Pipe Size		Outside diameter at bevel		Center-to-End	
Run	Outlet	Run	Outlet	Run (C)	Outlet (M)
1/2"	1/4"	21.3	13.7	25	25
	3/8"		17.3		
3/4"	3/8"	26.7	17.3	29	29
	1/2"		21.3		
1"	1/2"	33.4	21.3	38	38
	3/4"		26.7		
1 1/4"	1/2"	42.2	21.3	48	48
	3/4"		26.7		
	1"		33.4		
1 1/2"	1/2"	48.3	21.3	57	57
	3/4"		26.7		
	1"		33.4		
	1 1/4"		42.2		
2"	3/4"	60.3	26.7	64	44
	1"		33.4		51
	1 1/4"		42.2		57
	1 1/2"		48.3		60
2 1/2"	1"	73	33.4	76	57
	1 1/4"		42.2		64
	1 1/2"		48.3		67
	2"		60.3		70
3"	1 1/4"	88.9	42.2	86	70
	1 1/2"		48.3		73
	2"		60.3		76
	2 1/2"		73		83
3 1/2"	1 1/2"	101.6	48.3	95	79
	2"		60.3		83
	2 1/2"		73		89
	3"		88.9		92
4"	1 1/2"	114.3	48.3	105	86
	2"		60.3		89
	2 1/2"		73		95
	3"		88.9		98
	3 1/2"		101.6		102
5"	2"	141.3	60.3	124	105
	2 1/2"		73		108
	3"		88.9		111
	3 1/2"		101.6		114
	4"		114.3		117
6"	2 1/2"	168.3	73	143	121
	3"		88.9		124
	3 1/2"		101.6		127
	4"		114.3		130
	5		141.3		137

Nominal Pipe Size		Outside diameter at bevel		Center-to-End	
				Run (C)	Outlet (M)
8"	3 1/2"	219.1	101.6	178	152
	4"		114.3		156
	5"		141.3		162
	6"		168.3		168
10"	4"	273	114.3	216	184
	5"		141.3		191
	6"		168.3		194
	8"		219.1		203
12"	5"	323.8	141.3	254	216
	6"		168.3		219
	8"		219.1		229
	10"		273		241
14"	6"	355.6	168.3	279	238
	8"		219.1		248
	10"		273		257
	12"		323.8		270
16"	6"	406.4	168.3	305	264
	8"		219.1		273
	10"		273		283
	12"		323.8		295
	14"		355.6		305
18"	8"	457	219.1	343	298
	10"		273		308
	12"		323.8		321
	14"		355.6		330
	16"		406.4		330
20"	8"	508	219.1	381	324
	10"		273		333
	12"		323.8		346
	14"		355.6		356
	16"		406.4		356
	18"		457		368
22"	10"	559	273	419	359
	12"		323.8		371
	14"		355.6		381
	16"		406.4		381
	18"		457		394
	20"		508		406
24"	10"	610	273	432	384
	12"		323.8		397
	14"		355.6		406
	16"		406.4		406
	18"		457		419
	20"		508		432
	22"		559		432

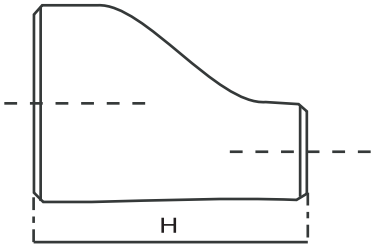
Note : All Dimensions are in millimetres [mm]
Dimension for 26" and above on request

BHAGYALAXMI INDUSTRIAL

REDUCER : CONCENTRIC & ECCENTRIC



CONCENTRIC REDUCER



ECCENTRIC REDUCER

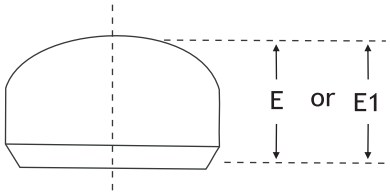
B16.9

NOMINAL PIPE SIZE	OUTSIDE DIAMETER		END TO END
Inch	D	P	H
3/4 x 1/2	26.7	21.3	38
3/4 x 3/8	26.7	17.1	38
1 x 3/4	33.4	26.7	51
1 x 1/2	33.4	21.3	51
1 1/4 x 1	42.2	33.4	51
1 1/4 x 3/4	42.2	26.7	51
1 1/4 x 1/2	42.2	21.3	51
1 1/2 x 1 1/2	48.3	42.2	64
1 1/2 x 1	48.3	33.4	64
1 1/2 x 3/4	48.3	26.7	64
1 1/2 x 1/2	48.3	21.3	64
2 x 1 1/2	60.3	48.2	76
2 x 1 1/4	60.3	42.2	76
2 x 1	60.3	33.4	76
2 x 3/4	60.3	26.7	76
2 1/2 x 2	73	60.3	89
2 1/2 x 1 1/2	73	48.3	89
2 1/2 x 1 1/4	73	42.2	89
2 1/2 x 1	73	33.4	89
3 x 2 1/2	88.9	73	89
3 x 2	88.9	60.3	89
3 x 1 1/2	88.9	48.3	89
3 x 1 1/4	88.9	42.2	89
3 1/2 x 3	101.6	88.9	102
3 1/2 x 21/2	101.6	73	102
3 1/2 x 2	101.6	60.3	102
3 1/2 x 1 1/2	101.6	48.3	102
3 1/2 x 1 1/4	101.6	42.2	102
4 x 3 1/2	114.3	101.6	102
4 x 3	114.3	88.9	102
4 x 2 1/2	114.3	73	102
4 x 2	114.3	60.3	102
4 x 1 1/2	114.3	48.3	102
5 x 4	141.3	114.3	127
5 x 3 1/2	141.3	101.6	127
5 x 3	141.3	88.9	127
5 x 2 1/2	141.3	73	127
5 x 2	141.3	60.3	127
6 x 5	168.3	141.3	140
6 x 4	168.3	114.3	140
6 x 3 1/2	168.3	101.6	140
6 x 3	168.3	88.9	140
6 x 2 1/2	168.3	73	140
8 x 6	219.1	168.3	152

NOMINAL PIPE SIZE	OUTSIDE DIAMETER		END TO END
Inch	D	P	H
8 x 5	219.1	141.3	152
8 x 4	219.1	114.3	152
8 x 3 1/2	219.1	101.6	152
10 x 8	273.1	219.1	178
10 x 6	273.1	168.1	178
10 x 5	273.1	141.3	178
10 x 4	273.1	114.3	178
12 x 10	323.9	273.1	203
12 x 8	323.9	219.1	203
12 x 6	323.9	168.3	203
12 x 5	323.9	141.3	203
14 x 12	355.6	323.9	330
14 x 10	355.6	273.1	330
14 x 8	355.6	219.1	330
14 x 6	355.6	168.3	330
16 x 14	406.4	355.6	356
16 x 12	406.4	323.9	356
16 x 10	406.4	273.1	356
16 x 8	406.4	219.1	356
16 x 6	406.4	168.3	356
18 x 16	457	406.4	381
18 x 14	457	355.6	381
18 x 12	457	323.9	381
18 x 10	457	273.1	381
18 x 8	457	219.1	381
20 x 18	508	457	508
20 x 16	508	406.4	508
20 x 14	508	355.6	508
20 x 12	508	323.9	508
20 x 10	508	273.1	508
20 x 8	508	219.1	508
22 x 20	559	508	508
22 x 18	559	457	508
22 x 16	559	406.4	508
22 x 14	559	355.6	508
22 x 12	559	323.9	508
24 x 10	559	273.1	508
24 x 22	610	559	508
24 x 20	610	508	508
24 x 18	610	457	508
24 x 16	610	406.4	508
24 x 14	610	355.6	508
24 x 12	610	323.9	508
24 x 10	610	273.1	508

Note : All Dimensions are in millimetres [mm]
Dimension for 26” and above on request

CAPS



B16.9

Nominal Pipe Size (NPS)	Outside Diameter at Bevel D	Length (1) E	Limiting Wall Thickness for Length E	Length (2) E1
1/2	0.84	1.00	0.18	1.00
3/4	1.05	1.00	1.15	1.00
1	1.32	1.50	0.18	1.50
11/4	1.66	1.50	0.19	1.50
1 1/2	1.90	1.50	0.20	1.50
2	2.38	1.50	0.22	1.75
2 1/2	2.88	1.50	0.28	2.00
3	3.50	2.00	0.30	2.50
3 1/2	4.00	2.50	0.32	3.00
4	4.50	2.50	0.34	3.00
5	5.56	3.00	0.38	3.50
6	6.62	3.50	0.43	4.00
8	8.62	4.00	0.50	5.00
10	10.75	5.00	0.50	6.00
12	12.75	6.00	0.50	7.00
14	14.00	6.50	0.50	7.50
16	16.00	7.00	0.50	8.00
18	18.00	8.00	0.50	9.00
20	20.00	9.00	0.50	10.00
22	22.00	10.00	0.50	10.00
24	24.00	10.50	0.50	12.00
26	26.00	10.50	...	...
28	28.00	10.50	...	...
30	30.00	10.50	...	...
32	32.00	10.50	...	...
34	34.00	10.50	...	...
36	36.00	10.50	...	...
38	38.00	12.00	...	...
40	40.00	12.00	...	...
42	42.00	12.00	...	...
44	44.00	13.50	...	...
46	46.00	13.50	...	...
48	48.00	13.50	...	...

Note : All Dimensions are in inches

GENERAL NOTE :

(a) Dimensions are in inches.

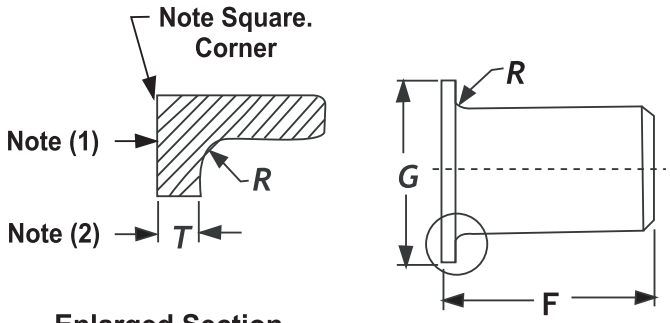
(b) The shape of these caps shall be ellipsoidal and shall conform to the shape requirements as given in the ASME Boiler and Pressure Vessel Code

NOTES :

(1) Length E applies for thickness not exceeding that given in column "Limiting Wall Thickness for Length E".

(2) Length E1 applies for thickness greater than that given in column "Limiting Wall Thickness" for NPS 24 and smaller. For NPS 26 and larger, length E1 shall be by agreement between manufacturer and purchaser.

LAP-JOINT STUB ENDS B16.9



Enlarged Section
of Lap

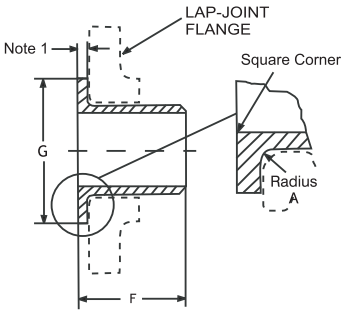
Nominal Pipe Size NPS	Outside Diameter of Barrel		long pattern length (F) notes(3)(4)	Short pattern length (F) notes(3)(4)	Radius of Fillet R Note(5)	Diameter of Lap (G) Note (6)
	Max	Min				
1/2"	0.896	0.809	3	2	0.12	1.38
3/4"	1.106	1.019	3	2	0.12	1.69
1"	1.376	1.284	4	2	0.12	2
11/4"	1.716	1.629	4	2	0.19	2.5
11/2"	1.965	1.869	4	2	0.25	2.88
2"	2.456	2.344	6	2.5	0.31	3.62
21/2"	2.966	2.844	6	2.5	0.31	4.12
3"	3.596	3.469	6	2.5	0.38	5
31/2"	4.096	3.969	6	3	0.38	5.5
4"	4.593	4.469	6	3	0.44	6.19
5"	5.683	5.532	6	3	0.44	7.3
6"	6.743	6.594	8	3.5	0.5	8.5
8"	8.743	8.594	8	4	0.5	10.62
10"	10.913	10.719	8	5	0.5	12.75
12"	12.913	12.719	10	6	0.5	15
14"	14.17	13.969	10	6	0.5	16.25
16"	16.18	15.969	12	6	0.5	18.5
18"	18.19	17.969	12	6	0.5	21
20"	20.24	19.969	12	6	0.5	23
22"	22.24	21.969	12	6	0.5	25.25
24"	24.24	23.969	12	6	0.5	27.25

GENERAL NOTES:
a) All dimensions are in inches.
b) For Tolerance see B/W Fitting tolerances chart
c) Service conditions and joint construction often dictate stub end length requirements. Therefor, the purchaser must specify long or short patten fitting when ordering.

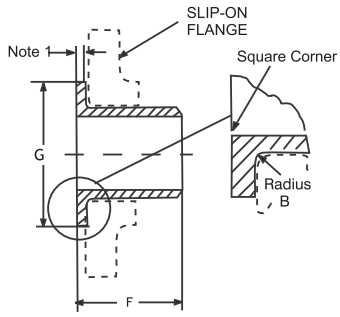
NOTES:
1) Gasket face finish shall be in accordance with ASME B16.5 for raised face flanges.
2) The lap thickness T shall not be less than nominal pipe wall thickness (see B/W Fitting tolerances chart)
3) When short pattern stub ends are used with larger flanges in classes 300 and 600, with most sizes in classes 900 and higher, and when long pattern stub ends are used with larger flanges in classes 1500 and 2500, It may be necessary to increase the length of the stub ends in order to avoid covering the weld with the flange. Such increases in length shall be matter of agreement between the Manufacturer and purchaser.
4) When special facings such as tongue and groove, male and female, etc., are employed, additional lap thickness must be provided and such additional thickness shall be in addition to (not included in) the basic length F.
5) These dimensions conform to the radius established for lap joint flanges in ASME B16.5.
6) This dimension conforms to standard machined facings shown in ASME B16.5. The back face of the lap shall be machined to conform to the surface on which it seats. Where ring joint facings are to be applied, use dimension K as given in ASME B16.5.

LAP-JOINT STUB ENDS MSS SP 43

TYPE A for LAP-JOINT FLANGE



TYPE B for SLIP - ON FLANGE



MSS SP 43

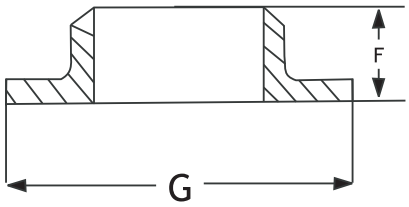
Nominal Pipe Size	Outside Diameter at Bevel	Out side Diameter of lap G	Stub Ends		
				Radius* of Fillet	
			Length F*	A - nominal and max	B (max)
1/2	0.84	1.38	2	0.12	0.03
3/4	1.05	1.69	2	0.12	0.03
1	1.32	2	2	0.12	0.03
1 1/4	1.66	2.5	2	0.19	0.03
1 1/2	1.9	2.88	2	0.25	0.03
2	2.38	3.63	2.5	0.31	0.03
2 1/2	2.88	4.13	2.5	0.31	0.03
3	3.5	5	2.5	0.38	0.03
3 1/2	4	5.5	3	0.38	0.03
4	4.5	6.19	3	0.44	0.03
5	5.56	7.31	3	0.44	0.06
6	6.63	8.5	3.5	0.5	0.06
8	8.63	10.62	4	0.5	0.06
10	10.75	12.75	4	0.5	0.06
12	12.75	15	6	0.5	0.06
14	14	16.25	6	0.5	0.06
16	16	18.5	6	0.5	0.06
18	18	21	6	0.5	0.06
20	20	23	6	0.5	0.06
24	24	27.25	6	0.5	0.06

All Dimension are in Inches

* These lengths and radii for use with Schedule 40S or thinner pipe.
Note 1. The minimum lap thickness shall not be less than nominal pipe wall thickness.
Note 2. Contact faces of stub ends shall have a modified spiral or concentric serration.

PRESSED STUBENDS / WELDING COLLARS

NOMINAL BORE (INCH)	OUTSIDE DIAMETER AT BEVEL	OUT SIDE DIAMETER OF LAP G	HEIGHT 'F'
1/2	0.84	1.38	0.31
3/4	1.05	1.69	0.31
1	1.32	2	0.39
1 1/4	1.66	2.5	0.47
1 1/2	1.9	2.88	0.47
2	2.38	3.63	0.62
2 1/2	2.88	4.13	0.62
3	3.5	5	0.70
3 1/2	4	5.5	0.78
4	4.5	6.19	0.78
5	5.56	7.31	0.98
6	6.63	8.5	0.98
8	8.63	10.62	1.18
10	10.75	12.75	1.37
12	12.75	15	1.57



NOTE : 1) All Dimension are in Inches
2) Thk as per Sch10S/40S etc.
3) Also can be manufactured in DIN Standard or as per your drawings

FLANGES

Slipon Without Hub

Slipon with Hub

Weldneck

Blind

Socketweld

Lap Joint

Screwed

Orifice

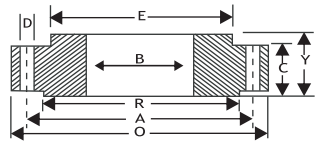
Table Flanges

Spectacle Bind

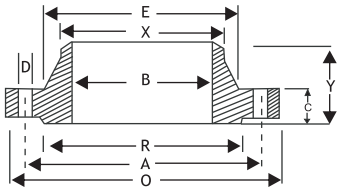
Ring Joint

Long Weldneck

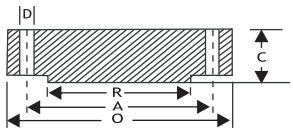
FLANGES CLASS 150 & 300



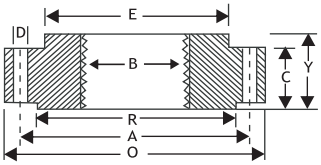
SLIP-ON FLANGE



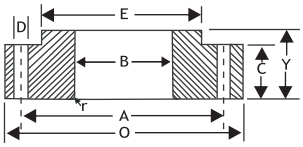
WELDING NECK FLANGE



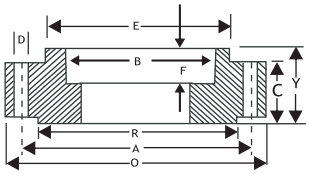
BLIND FLANGE



THREADED FLANGE



LAP JOINT FLANGE



SOCKET WELD FLANGE

DIMENSIONS OF CLASS150 FLANGES AS PER B16.5

Nominal Pipe Size	Flange Dia	Dia of Bolt Circle	No. Of Bolt Holes	No. Of Holes	Thk of Flange	Dia of Hub	Length through Hub			Dia Bore		Dia of R/F	Depth of Socket	Pipe Dia
							S / O & S / W	W/N	L/J	S/O & S/W	L/J			
	O	A	D		C	E	Y	Y	Y	B	B	R	F	X
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

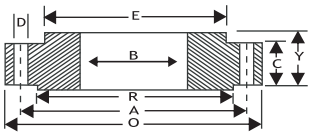
DIMENSIONS OF CLASS 300 FLANGES AS PER B16.5

Nominal Pipe Size	Flange Dia	Dia of Bolt Circle	No. Of Bolt Holes	No. Of Holes	Thk of Flange	Dia of Hub	Length through Hub			Dia Bore		Dia of R/F	Depth of Socket	Pipe Dia
							S / O & S / W	W/N	L/J	S/O & S/W	L/J			
	O	A	D		C	E	Y	Y	Y	B	B	R	F	X
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

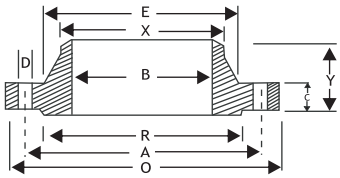
Metric values are direct conversion from Inches table of B16.5
Flanges except Lap Joint will be furnished with (1.6 mm) raised face, Which is included in " Thickness" (C) and Length Through Hub (Y).

BHAGYALAXMI INDUSTRIAL

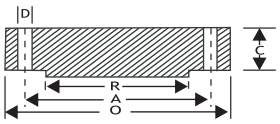
FLANGES CLASS 600 & 900



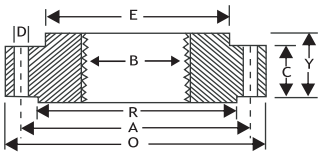
SLIP-ON FLANGE



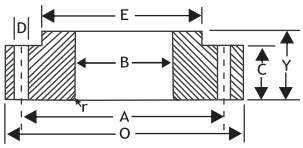
WELDING NECK FLANGE



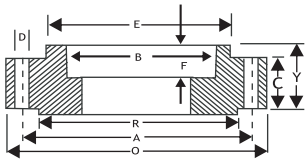
BLIND FLANGE



THREADED FLANGE



LAP JOINT FLANGE



SOCKET WELD FLANGE

DIMENSIONS OF CLASS 600 FLANGES AS PER 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 S / O & S / W Y	Length through Hub W/N Y	Length through Hub L/J Y	Dia Bore S/O & S/W B	Dia Bore L/J B	Dia of R/F R	Depth of Socket F	Pipe Dia X
15	95.2	66.7	15.9	4	14.3	38.1	22.2	52.4	22.3	22.3	22.8	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	28.1	42.9	11.1	26.67
25	123.8	88.9	19.0	4	17.5	54.0	27.0	61.9	26.9	34.5	35.0	50.8	12.7	33.40
32	133.3	98.4	19.0	4	20.6	63.5	28.6	66.7	28.4	43.2	43.6	63.5	14.2	42.16
40	155.6	114.3	22.2	4	22.2	69.8	31.7	69.8	31.7	49.5	50.0	73.0	15.8	48.26
50	165.1	127.0	19.0	8	25.4	84.1	36.5	73.0	36.5	62.0	62.4	92.1	17.4	60.31
65	190.5	149.2	22.2	8	28.6	100.0	41.3	79.4	41.1	74.7	75.4	104.8	19.0	73.02
80	209.5	168.3	22.2	8	31.8	117.5	46.0	82.5	45.9	90.7	91.4	127.0	-	88.90
100	273.0	215.9	25.4	8	38.1	152.4	54.0	101.6	53.8	116.1	116.8	157.2	-	114.30
125	330.2	266.7	28.6	8	44.4	188.9	60.3	114.3	60.4	143.8	141.5	185.7	-	141.30
150	355.6	292.1	28.6	12	47.6	222.2	66.7	117.5	66.5	170.7	171.4	215.9	-	168.27
200	419.1	349.2	31.7	12	55.6	273.0	76.2	133.3	76.2	221.5	222.2	269.9	-	219.07
250	508.0	431.8	34.9	16	63.5	342.9	85.7	152.4	111.2	276.3	277.3	323.8	-	273.05
300	558.8	488.9	34.9	20	66.7	400.0	92.1	155.6	117.3	327.1	328.1	381.0	-	323.85
350	603.2	527.0	38.1	20	69.9	431.8	93.7	165.1	127.0	359.1	360.1	412.7	-	355.60
400	685.8	603.2	41.3	20	76.2	495.3	106.4	177.8	139.7	410.5	411.2	469.9	-	406.40
450	742.9	654.0	44.4	20	82.6	546.1	117.5	184.1	152.4	461.8	462.2	533.4	-	457.20
500	812.8	723.9	44.4	24	88.9	609.6	127.0	190.5	165.1	513.1	514.3	584.2	-	508.00
600	939.8	838.2	50.8	24	101.6	717.5	139.7	203.2	184.1	615.9	615.9	692.1	-	609.60

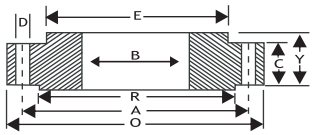
DIMENSIONS OF CLASS 900 FLANGES AS PER B 16.5

Nominal Pipe Size	Flange Dia O	Dia of Bolt Circle A	Dai Of Bolt Holes D	No. Of Holes	Thk of Flange C	Dia of Hub E	Length through Hub S / O & S / W Y	Length through Hub W/N Y	Length through Hub L/J Y	Dia Bore S/O & S/W B	Dia Bore L/J B	Dia of R/F R	Depth of Socket F	Pipe Dia X
15	120.6	82.5	22.2	4	22.2	38.1	31.7	60.3	31.7	22.3	22.8	34.9	9.5	21.33
20	130.2	88.9	22.2	4	25.4	44.4	34.9	69.8	35.0	27.7	28.1	42.9	11.1	26.67
25	149.2	101.6	25.4	4	28.6	52.4	41.3	73.0	41.1	34.5	35.0	50.8	12.7	33.40
32	158.7	111.1	25.4	4	28.6	63.5	41.3	73.0	41.1	43.2	43.6	63.5	14.2	42.16
40	177.8	123.8	28.6	4	31.8	69.8	44.4	82.5	44.4	49.5	50.0	73.0	15.8	48.26
50	215.9	165.1	25.4	8	38.1	104.8	57.1	101.6	57.1	62.0	62.4	92.1	17.4	60.31
65	244.5	190.5	28.6	8	41.3	123.8	63.5	104.8	63.5	74.7	75.4	104.8	19.0	73.02
80	241.3	190.5	25.4	8	38.1	127.0	53.9	101.6	53.8	90.7	91.4	127.0	-	88.90
100	292.1	234.9	31.7	8	44.4	158.7	69.8	114.3	69.8	116.0	116.8	157.1	-	114.30
125	349.2	279.4	35.0	8	50.8	190.5	79.3	127.0	79.2	143.7	114.5	185.7	-	141.30
150	381.0	317.5	31.7	12	55.6	234.9	85.8	139.7	85.8	170.6	171.4	215.9	-	168.27
200	469.9	393.7	38.1	12	63.5	298.4	101.6	162.0	114.3	221.4	222.2	269.8	-	219.07
250	546.1	469.9	38.1	16	69.8	368.3	107.9	184.1	127.0	276.3	277.3	323.8	-	273.05
300	609.6	533.4	38.1	20	79.3	419.1	117.4	200.0	142.7	327.1	328.1	381.0	-	323.85

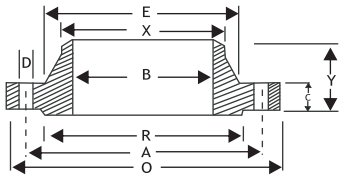
Metric values are direct conversion from Inches table of B16.5
RF Thickness 6.3 mm Extra to be provided (Except Lap Joint Flange & FF Flanges).

BHAGYALAXMI INDUSTRIAL

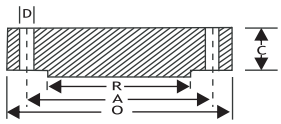
FLANGES CLASS 1500 & 2500



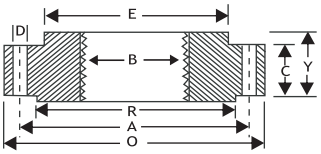
SLIP-ON FLANGE



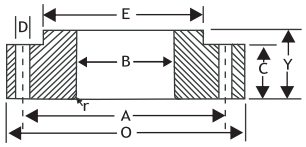
WELDING NECK FLANGE



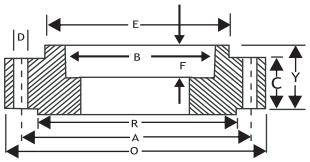
BLIND FLANGE



THREADED FLANGE



LAP JOINT FLANGE



SOCKET WELD FLANGE

DIMENSIONS OF CLASS1500 FLANGES AS PER B16.5

Nominal Pipe Size	Flange Dia	Dia of Bolt Circle	Dai Of Bolt Holes	No. Of Holes	Thk of Flange	Dia of Hub	Length through Hub			Dia Bore		Dia of R/F	Depth of Socket	Pipe Dia
							S / O & S / W	W/N	L/J	S/O & S/W	L/J			
	O	A	D		C	E	Y	Y	Y	B	B	R	F	X
15	120.6	82.5	22.2	4	22.2	38.1	31.7	60.3	31.7	22.3	22.8	34.9	9.5	21.33
20	130.2	88.9	22.2	4	25.4	44.4	34.9	69.8	34.9	27.7	28.1	42.9	11.1	26.67
25	149.2	101.6	25.4	4	28.6	52.4	41.3	73.0	41.3	34.5	35.0	50.8	12.7	33.40
32	158.7	111.1	25.4	4	28.6	63.5	41.3	73.0	41.3	43.2	43.6	63.5	14.2	42.16
40	177.8	123.8	28.6	4	31.8	69.8	44.4	82.5	44.4	49.5	50.0	73.0	15.8	48.26
50	215.9	165.1	25.4	8	38.1	104.8	57.1	101.6	57.1	62.0	62.0	92.1	17.4	60.31
65	244.5	190.5	28.6	8	41.3	123.8	63.5	104.8	63.5	74.7	75.4	104.8	19.0	73.02
80	266.7	203.2	31.7	8	47.6	133.3	73.0	117.5	73.0	90.7	91.4	127.0	-	88.90
100	311.1	241.3	34.9	8	54.0	161.9	90.5	123.0	90.4	116.1	116.8	157.2	-	114.30
125	374.6	292.1	41.3	8	73.0	196.8	104.8	155.6	104.8	143.8	144.5	185.7	-	141.30
150	393.7	317.5	38.1	12	82.6	228.6	119.1	171.4	119.1	170.7	171.4	215.9	-	168.27
200	482.6	393.7	44.4	12	92.1	292.1	142.9	212.7	142.8	221.5	222.2	269.9	-	219.07
250	584.2	482.6	50.8	12	107.9	368.3	158.7	254.0	177.8	276.3	277.3	323.8	-	273.05
300	673.1	571.5	54.0	16	123.8	450.8	181.0	285.5	218.9	327.1	328.1	381.0	-	323.85

DIMENSIONS OF CLASS 2500 FLANGES AS PER B16.5

Nominal Pipe Size	Flange Dia	Dia of Bolt Circle	Dai Of Bolt Holes	No. Of Holes	Thk of Flange	Dia of Hub	Length through Hub			Dia Bore		Dia of R/F	Depth of Socket	Pipe Dia
							S / O & S / W	W/N	L/J	S/O & S/W	L/J			
	O	A	D		C	E	Y	Y	Y	B	B	R	F	X
15	133.3	88.9	22.2	4	30.2	42.9	39.7	73.0	39.7	22.3	22.3	34.9	-	21.33
20	139.7	95.2	22.2	4	31.7	50.8	42.9	79.4	42.9	27.7	27.7	42.9	-	26.67
25	158.7	107.9	25.4	4	34.9	57.1	47.7	88.9	47.7	34.5	34.5	50.8	-	33.40
32	184.1	130.2	28.6	4	38.1	73.0	52.4	95.2	52.4	43.2	43.2	63.5	-	42.16
40	203.2	146.0	31.7	4	44.4	79.4	60.3	111.1	60.3	49.5	49.5	73.0	-	48.26
50	234.9	171.4	28.6	8	50.8	95.2	69.8	127.0	69.8	62.4	62.0	92.1	-	60.31
65	266.7	196.8	31.7	8	57.1	114.3	79.4	142.9	79.4	74.7	74.7	104.8	-	73.02
80	304.8	228.6	34.9	8	66.7	133.3	92.1	168.3	92.1	90.7	90.7	127.0	-	88.90
100	355.6	273.0	41.3	8	76.2	165.1	107.9	190.5	107.9	116.1	116.1	157.2	-	114.30
125	419.1	323.8	47.6	8	92.1	203.2	130.0	228.6	130.0	143.8	143.8	185.7	-	141.30
150	482.6	368.3	54.0	8	107.9	234.9	152.4	273.0	152.4	170.7	170.7	215.9	-	168.27
200	552.4	438.1	54.0	12	127.0	304.8	177.8	317.5	177.8	221.5	221.5	269.9	-	219.07
250	673.1	539.7	66.7	12	165.1	374.6	228.6	419.1	228.6	276.3	276.3	323.8	-	273.05
300	762.0	619.1	73.0	12	184.1	441.3	254.0	463.5	254.0	327.1	327.1	381.0	-	323.85

Metric values are direct conversion from Inches table of B16.5
RF Thickness 6.3 mm Extra to be provided (Except Lap Joint Flange & FF Flanges).

HIGH PRESSURE FORGED FITTINGS - SOCKETWELD & THREAD

90 deg Elbow

45 Deg Elbow

Tee

Cross Tee

Couplings

Street Elbow

End Caps

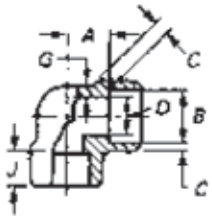
Plug

Hex Nipple

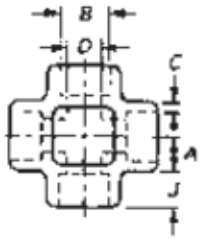
Union

Hose Nipple

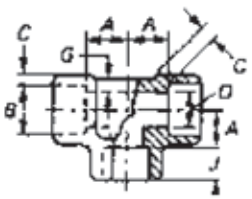
Bushing



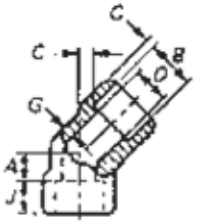
90° Elbow



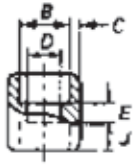
Cross



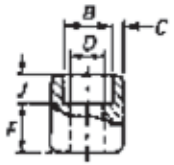
Tee



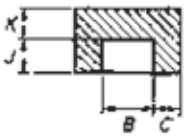
45° Elbow



Coupling



Half Coupling



Cap

B16.11

Nom. Pipe Size	Socket Bore Dia.(2) B	Bore Diameter of Fittings (2) D			Socket Wall Thickness (1) C						Body Wall G			Depth of Socket J Min.	Center to Bottom of Socket - A						Laying Lengths		Tolerances ±			End Wall Thickness K_{min}		
		Class Designation			Class Designation						Class Designation				90° Elbows, Tees, and Crosses			45° Elbows								Class Designation		
					3000		6000		9000		3000	6000	9000		Class Designation						Couplings E	Half Couplings F	A	E	F			
		3000	6000	9000	Ave	Min.	Ave	Min.	Ave	Min.	Min.	Min.	Min.		3000	6000	9000	3000	6000	9000						3000	6000	9000
1/8	0.440 0.420	0.299 0.239	0.189 0.126		0.125	0.125	0.156	0.135			0.095	0.124		0.38	0.44	0.44		0.31	0.31		0.25	0.62	0.03	0.06	0.03	0.19	0.25	
1/4	0.575 0.555	0.394 0.334	0.280 0.220		0.149	0.130	0.181	0.158			0.119	0.145		0.38	0.44	0.53		0.31	0.31		0.25	0.62	0.03	0.06	0.03	0.19	0.25	
3/8	0.710 0.690	0.523 0.463	0.389 0.329		0.158	0.138	0.198	0.172			0.126	0.158		0.38	0.53	0.62		0.31	0.44		0.25	0.69	0.06	0.12	0.06	0.19	0.25	
1/2	0.875 0.855	0.652 0.592	0.494 0.434	0.282 0.222	0.184	0.161	0.235	0.204	0.368	0.322	0.147	0.188	0.294	0.38	0.62	0.75	1.00	0.44	0.50	0.62	0.38	0.88	0.06	0.12	0.06	0.25	0.31	0.44
3/4	1.085 1.065	0.854 0.794	0.642 0.582	0.464 0.404	0.193	0.168	0.274	0.238	0.385	0.337	0.154	0.219	0.308	0.50	0.75	0.88	1.12	0.50	0.56	0.75	0.38	0.94	0.06	0.12	0.06	0.25	0.31	0.50
1	1.350 1.330	1.094 1.019	0.845 0.785	0.629 0.569	0.224	0.196	0.312	0.273	0.448	0.392	0.179	0.250	0.358	0.50	0.88	1.06	1.25	0.56	0.69	0.81	0.50	1.12	0.08	0.16	0.08	0.38	0.44	0.56
1 1/4	1.695 1.675	1.410 1.350	1.190 1.130	0.926 0.866	0.239	0.208	0.312	0.273	0.478	0.418	0.191	0.250	0.382	0.50	1.06	1.25	1.38	0.69	0.81	0.88	0.50	1.19	0.08	0.16	0.08	0.38	0.44	0.56
1 ½	1.935 1.915	1.640 1.580	1.368 1.308	1.130 1.070	0.250	0.218	0.351	0.307	0.500	0.438	0.200	0.281	0.400	0.50	1.25	1.50	1.50	0.81	1.00	1.00	0.50	1.25	0.08	0.16	0.08	0.44	0.50	0.62
2	2.426 2.406	2.097 2.037	1.717 1.657	1.533 1.473	0.273	0.238	0.430	0.374	0.545	0.477	0.218	0.344	0.436	0.62	1.50	1.62	2.12	1.00	1.12	1.12	0.75	1.62	0.08	0.16	0.08	0.50	0.62	0.75
2 ½	2.931 2.906	2.529 2.409			0.345	0.302					0.276			0.62	1.62			1.12			0.75	1.69	0.10	0.20	0.10	0.62	0.75	
3	3.560 3.535	3.128 3.008			0.375	0.327					0.300			0.62	2.25			1.25			0.75	1.75	0.10	0.20	0.10	0.75	0.88	
4	4.570 4.545	4.086 3.966			0.421	0.368					0.337			0.75	2.62			1.62			0.75	1.88	0.10	0.20	0.10	0.88	1.12	

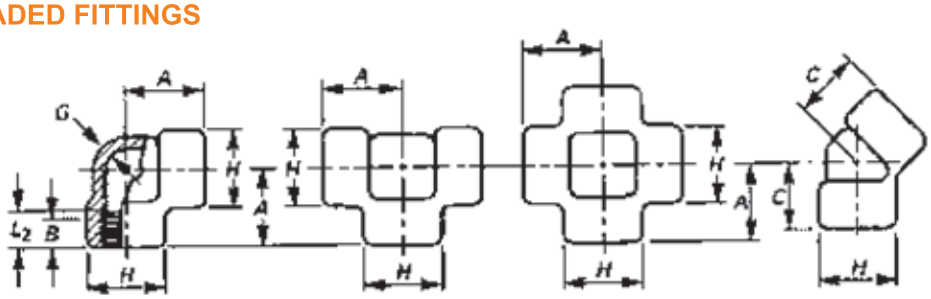
General Note : Dimensions are in inches

Note :

(1) Avarage of socket wall Thickness around periphery shall be no less than listed. The minimum value are permitted in localized areas

(2) Upper and lower values for each size are the respective maximum and minium dimensions.

FORGED THREADED FITTINGS



90° Elbow | Tee | Cross | 45° Elbow

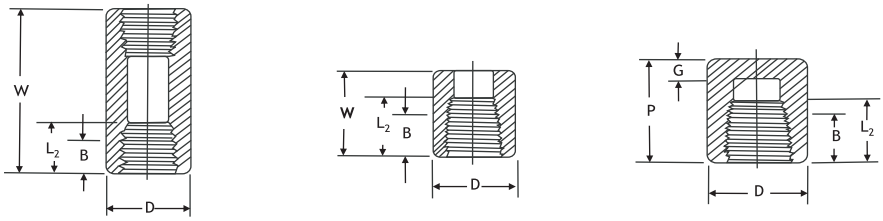
B16.11

Nominal Pipe Size	Center to End Elbows, Tees, Crosses A			Center to End 45° Elbow C			Outside Diameter of Bend H			Minimum Wall Thickness G			Length of Thread Min (1)	
	2000	3000	6000	2000	3000	6000	2000	3000	6000	2000	3000	6000	B	L_2
1/8	0.81	0.81	0.97	0.69	0.69	0.75	0.88	0.88	1.00	0.125	0.125	0.250	0.25	0.2639
1/4	0.81	0.97	1.12	0.69	0.75	0.88	0.88	1.00	1.31	0.125	0.130	0.260	0.32	0.4018
3/8	0.97	1.12	1.31	0.75	0.88	1.00	1.00	1.31	1.50	0.125	0.138	0.275	0.36	0.4078
1/2	1.12	1.31	1.50	0.88	1.00	1.12	1.31	1.50	1.81	0.125	0.161	0.321	0.43	0.5337
3/4	1.31	1.50	1.75	1.00	1.12	1.31	1.50	1.81	2.19	0.125	0.170	0.336	0.50	0.5457
1	1.50	1.75	2.00	1.12	1.31	1.38	1.81	2.19	2.44	0.145	0.196	0.391	0.58	0.6828
1 1/4	1.75	2.00	2.38	1.31	1.38	1.69	2.19	2.44	2.97	0.153	0.208	0.417	0.67	0.7068
1 1/2	2.00	2.38	2.50	1.38	1.69	1.72	2.44	2.97	3.31	0.158	0.219	0.436	0.70	0.7235
2	2.38	2.50	3.25	1.69	1.72	2.06	2.97	3.31	4.00	0.168	0.281	0.476	0.75	0.7565
2 1/2	3.00	3.25	3.75	2.06	2.06	2.50	3.62	4.00	4.75	0.221	0.301	0.602	0.93	1.138
3	3.38	3.75	4.19	2.50	2.50	3.12	4.31	4.75	5.75	0.236	0.348	0.655	1.02	1.200
4	4.19	4.50	4.50	3.12	3.12	3.12	5.75	6.00	6.00	0.258	0.440	0.735	1.09	1.300

General Note : Dimensions are in inches

Note : 1) Dimension B is minimum length of perfect thread. The length of useful thread (B plus threads with fully formed roots and flat crests) shall not be less than L_2 (effective length of external thread) required by American National Standard for Pipe Threads (ANSI/ASME B1.20.1).

COUPLINGS & CAPS



Coupling | Half-Coupling | Cap

B16.11

Nominal Pipe Size	End to End Couplings W	End to End Caps P		Outside Diameter D		End Wall Thicknes G Min.		Length of Thread Min (2)	
	3000 & 6000	3000	6000	3000	6000	3000	6000	B	L_2
1/8	1.25	0.75		0.62	0.88	0.19		0.25	0.2639
1/4	1.38	1.00	1.06	0.75	1.00	0.19	0.25	0.32	0.4018
3/8	1.50	1.00	1.06	0.88	1.25	0.19	0.25	0.36	0.4078
1/2	1.88	1.25	1.31	1.12	1.50	0.25	0.31	0.43	0.5337
3/4	2.00	1.44	1.50	1.38	1.75	0.25	0.31	0.50	0.5457
1	2.38	1.62	1.69	1.75	2.25	0.38	0.44	0.58	0.6828
1 1/4	2.62	1.75	1.81	2.25	2.50	0.38	0.44	0.67	0.7068
1 1/2	3.12	1.75	1.88	2.50	3.00	0.44	0.50	0.70	0.7235
2	3.38	1.88	2.00	3.00	3.62	0.50	0.62	0.75	0.7565
2 1/2	3.62	2.38	2.50	3.62	4.25	0.62	0.75	0.93	1.138
3	4.25	2.56	2.6	4.25	5.00	0.75	0.88	1.02	1.200
4	4.75	2.69	2.94	5.50	6.25	0.88	1.12	1.09	1.300

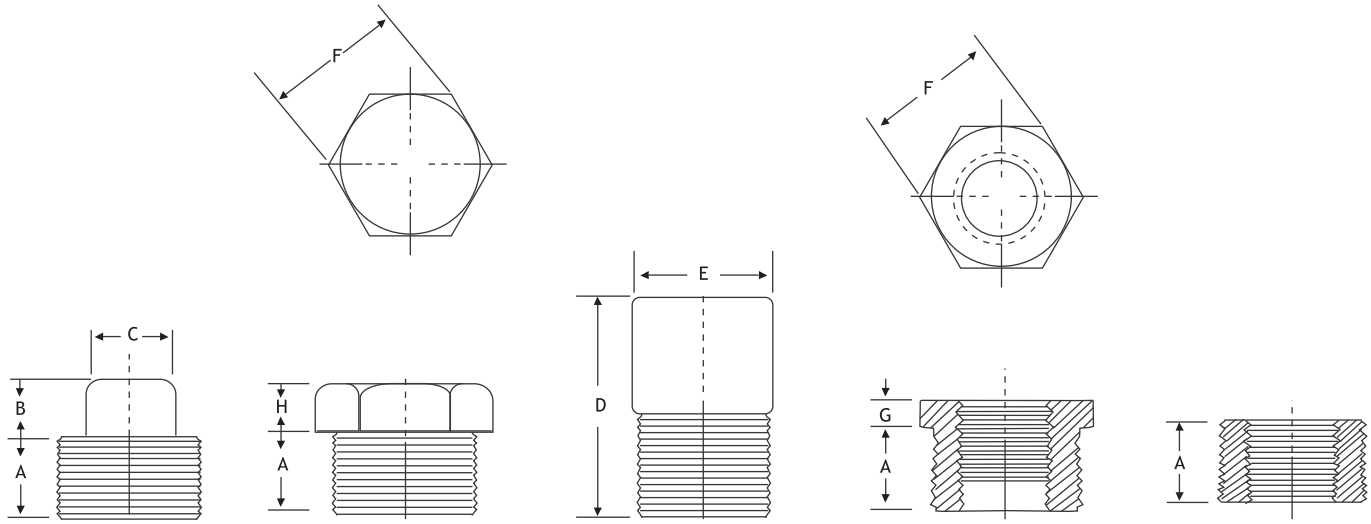
General Note : Dimensions are in inches

Note : 1) Class 2000 and NPS 1/8 Class 6000 couplings, half couplings, and caps are not included in this Standard.

2) Dimension B is minimum length of perfect thread. The length of useful thread (B plus threads with fully formed roots and flat Crests) shall not be less than L_2 (effective length of external thread) required by American National Standard for pipe Threads (ANSI/ASME B1.20.1)

DIMENSIONS OF STREET ELBOW & WELDING BOSS ON REQUEST

PLUGS AND BUSHINGS



Square Head Plug | Hex Head Plug | Round Head Plug | Hex Head Bushing | Flush Bushing

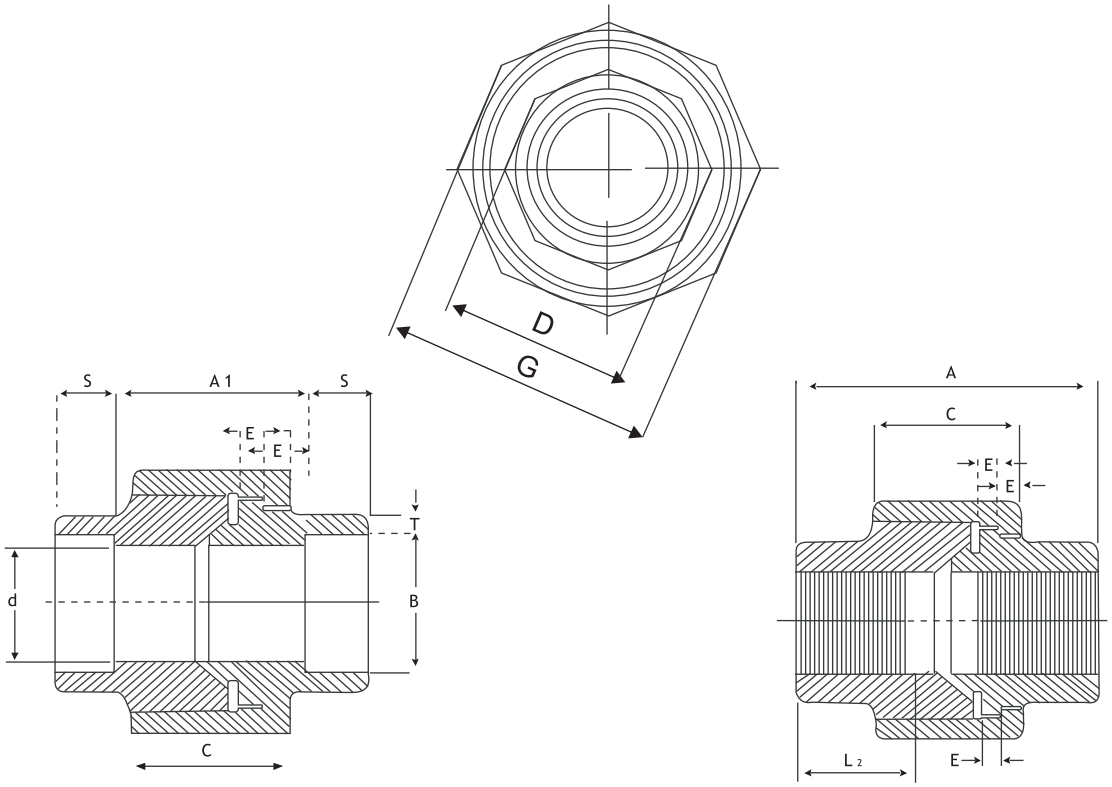
B16.11

Nominal Pipe Size	Length (Minimum) A	Plugs Square Head		Plugs Round Head		Hex Plugs & Bushings		
		Height of Square (Minimum) B	Width Flats (Minimum) C	Nominal Diameter of Head E	Length (Minimum) D	Width Flats (Nominal) F	Hex Height (Min.) Bushing G	Hex Height (Min.) Plug H
1/8	0.38	0.25	0.28	0.41	1.38	0.44	____	0.25
1/4	0.44	0.25	0.38	0.53	1.62	0.62	0.12	0.25
3/8	0.50	0.31	0.44	0.69	1.62	0.69	0.16	0.31
1/2	0.56	0.38	0.56	0.84	1.75	0.88	0.19	0.31
3/4	0.62	0.44	0.62	1.06	1.75	1.06	0.22	0.38
1	0.75	0.50	0.81	1.31	2.00	1.38	0.25	0.38
1 1/4	0.81	0.56	0.94	1.69	2.00	1.75	0.28	0.56
1 1/2	0.81	0.62	1.12	1.91	2.00	2.00	0.31	0.62
2	0.88	0.69	1.31	2.38	2.50	2.50	0.34	0.69
2 1/2	1.06	0.75	1.50	2.88	2.75	3.00	0.38	0.75
3	1.12	0.81	1.69	3.50	2.75	3.50	0.41	0.81
4	1.25	1.00	2.50	4.50	3.00	4.62	0.50	1.00

General Note : Dimensions are in inches

Note : 1) Cautionary Note Regarding Hex Head Bushings. Hex Head Bushings of one-size reduction not be used in services wherein they might be subject to harmful loads and forces other than internal pressures.

SOCKETWELD & SCREWED UNION



SOCKETWELD UNION

SCREWED UNION

BS 3799

Nominal Size		3000 lbs.									Depth of Socket (min) S	Socket wall thickness (min) T
		End to End A	Width Union nut (min.) G	Height of Union nut (min.) C	Width A/F of ends (min.) D	Thickness of shoulder (min.) E	Length of thread (min.) L_2	Distance between bottoms of Socket (min) A1	Bore diameter of Sockets (Min) B	Bore diameter of Union d		
Inches	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
1/8	(6)	40	32	16	17	3.2	6.70	17	10.7	6.8	10	3.2
1/4	(8)	43	32	18	19	3.2	10.21	17	14.1	9.2	10	3.3
3/8	(10)	48	36	19	22	3.2	10.36	17	17.6	12.5	10	3.5
1/2	(15)	51	43	21	30	4.0	13.56	18	21.8	15.5	10	4.1
3/4	(20)	57	50	24	36	4.8	13.86	20	27.4	21.0	13	4.3
1	(25)	64	60	25	41	4.8	17.34	26	34.1	26.5	13	5.0
1 1/4	(32)	70	70	29	50	5.6	17.93	28	42.9	35.0	13	5.3
1 1/2	(40)	79	78	30	60	5.6	18.38	30	49.0	40.5	13	5.6
2	(50)	89	95	37	70	6.4	19.22	36	61.0	52.0	16	6.1
2 1/2	(65)	118	125	48	85	9.6	28.89	57	73.8	62.0	16	7.7
3	(80)	121	140	51	100	12.7	30.48	70	89.7	78.0	16	8.3

All Dimensions are in millimeters (mm)

NOTE : Other external forms of nut & ends are permissible provided the minimum dimensions shown in this table are maintained.
Bore diameter of Sockets corresponds to schedule 40 pipe, subject to tolerance.

FASTENERS

HEXAGON HEAD BOLTS

SOCKET HEAD ALLEN CAP SCREW

FLANGE HEX BOLT

U BOLT

DOME HEAD BOLT

WING BOLT

HEXAGON NUTS

DOME HEAD NUTS

HEX LONG NUT

FLANGE NUT

WEDGE ANCHOR

PLAIN WASHER

SPRING WASHER

THREADED RODS

GRUB SCREW

ALLENCSK SCREW

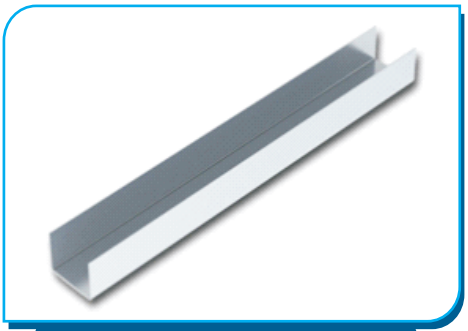
Duplex & Super Duplex	:	UNS S31803, UNS S32205, UNS S32750, UNS S32760.
Hastelloy Alloy	:	Hastelloy B2, Hastelloy C276, Hastelloy C22.
Incoloy Alloys	:	Alloy 800H/800HT, Alloy 825.
Inconel Alloys	:	Alloy 600, Alloy 601, Alloy 625, Alloy 718, Alloy 725.
Monel Alloys	:	Monel 400, Monel K500.
Titanium	:	Grade 1, 2 & 5.
Nickel	:	Alloy 200 & Alloy 201.
Copper / Cupro Nickel	:	90/10 (UNS C70600), 70/30 (UNS C71500).
Stainless Steel	:	304, 304L, 316, 316L, 316Ti, 321, 321H, 310, UNS S31254, 904L

OTHER PRODUCTS

Coils

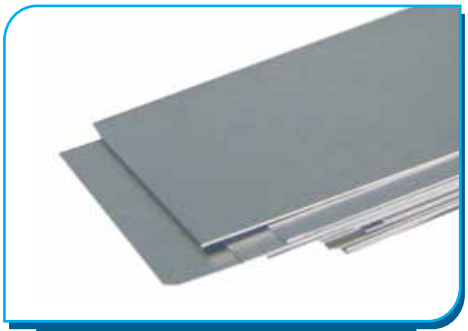
Rods

Angle

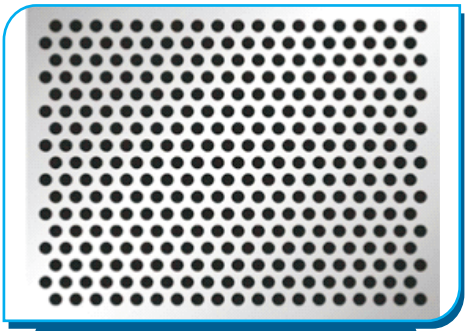


Channel

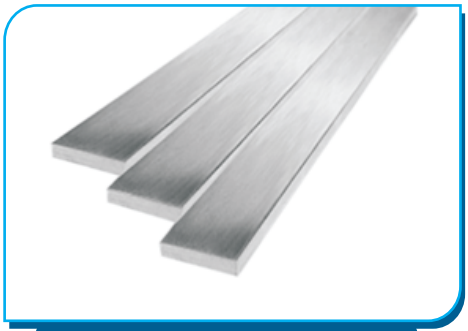
Socketweld Fittings



Sheets



Perforated Sheet



Flats

Nut & Bolts

Line Blanks

Copper Strips

Long Weldneck

BHAGYALAXMI
INDUSTRIAL

CERTIFICATE

ISO 9001:2015

AQSR

Certificate of Registration

QUALITY MANAGEMENT SYSTEM

Certificate No. 15053

This is to certify that the Management System of

BHAGYALAXMI INDUSTRIAL

Regd Off : 156-158, C. P. Tank, Shop No. 4, Laxminiwas Bldg., Ardeshir Dadi Cross Lane, Mumbai – 400004, Maharastra, India.

Factory Address : Ghojaria Estate, Plot No. 1, Kharwa Lane, Mumbai 400004, Maharashtra, India.

has been found to conform to

ISO 9001:2015

This Certificate is valid for the below scope of services

Manufacturer, Supplier & Exporter for Stainless Steel, Carbon Steel & High Nickel Alloys in the form of Pipes, Pipe Fittings, Flanges, Round Bars, Sheets & Fasteners.

Date of Registration 22/11/2019 — Date of Expiry 21/11/2022

Re-certification Date 21/11/2022 — Signed on behalf of AQSR

ISO 14001:2015

AQSR

Certificate of Registration

ENVIRONMENT MANAGEMENT SYSTEM

Certificate No. 15700

This is to certify that the Management System of

BHAGYALAXMI INDUSTRIAL

Regd Off : 156-158, C. P. Tank, Shop No. 4, Laxminiwas Bldg., Ardeshir Dadi Cross Lane, Mumbai – 400004, Maharastra, India.

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This Certificate is valid for the below scope of services

Manufacturer, Supplier & Exporter for Stainless Steel, Carbon Steel & High Nickel Alloys in the form of Pipes, Pipe Fittings, Flanges, Round Bars, Sheets & Fasteners.

Date of Registration 20/11/2021 — Date of Expiry 19/11/2022

Re-certification Date 19/11/2024 — Signed on behalf of AQSR

GOVERNMENT OF INDIA

Ministry of Micro, Small and Medium Enterprises

UDYAM REGISTRATION CERTIFICATE

UDYAM REGISTRATION NUMBER	UDYAM-MH-19-0114673
NAME OF ENTERPRISE	BHAGYALAXMI INDUSTRIAL
TYPE OF ENTERPRISE *	MICRO
MAJOR ACTIVITY	MANUFACTURING
SOCIAL CATEGORY OF ENTREPRENEUR	GENERAL
NAME OF UNIT(S)	1. MH19D0132677 — Bhagyalaxmi Industrial
OFFICAL ADDRESS OF ENTERPRISE	Flat/Door/Block No. 156-158; Name of Premises/ Building: Laxminiwas Building; Village/Town: Mumbai; Block: C. P. Tank Circle; Road/Street/Lane: Ardeshir Dadi Cross Lane; City: Mumbai; State: MAHARASHTRA; District: MUMBAI , Pin 400004; Mobile: 9869121362; Email: bhavik@bhagyalaxmiindustrial.com
DATE OF INCORPORATION / REGISTRATION OF ENTERPRISE	16/10/2006
DATE OF COMMENCEMENT OF PRODUCTION/BUSINESS	16/10/2006
DATE OF UDYAM REGISTRATION	04/02/2022

NATIONAL INDUSTRY CLASSIFICATION CODE(S)

SNo.	NIC 2 Digit	NIC 4 Digit	NIC 5 Digit	Activity
1	24 - Manufacture of basic metals	2410 - Manufacture of basic iron and steel	24105 - Manufacture of hot-rolled and cold-rolled products of steel	Manufacturing
2	24 - Manufacture of basic metals	2410 - Manufacture of basic iron and steel	24106 - Manufacture of tube and tube fittings of basic iron and steel	Manufacturing
3	24 - Manufacture of basic metals	2420 - Manufacture of basic precious and other non-ferrous metals	24204 - Manufacturing of chrome,manganese and nickel products alloys	Manufacturing
4	24 - Manufacture of basic metals	2420 - Manufacture of basic precious and other non-ferrous metals	24209 - Manufacture of other non-ferrous metals n.e.c	Manufacturing
5	25 - Manufacture of fabricated metal products, except machinery and equipment	2511 - Manufacture of structural metal products	25119 - Manufacture of other structural metal products	Manufacturing
6	25 - Manufacture of fabricated metal products, except machinery and equipment	2591 - Forging, pressing, stamping and roll-forming of metal; powder metallurgy	25910 - Forging, pressing, stamping and roll-forming of metal; powder metallurgy	Manufacturing
7	25 - Manufacture of fabricated metal products, except machinery and equipment	2599 - Manufacture of other fabricated metal products n.e.c.	25999 - Manufacture of other fabricated metal products n.e.c.	Manufacturing
8	25 - Manufacture of fabricated metal products, except machinery and equipment	2599 - Manufacture of other fabricated metal products n.e.c.	25991 - Manufacture of metal fasteners (nails, rivets, tacks, pins, staples, washers and similar non-threaded products and nuts, bolts, screws and other threaded products)	Manufacturing
9	32 - Other manufacturing	3290 - Other manufacturing n.e.c.	32909 - Manufacture of other articles n.e.c.	Manufacturing

For any assistance, you may contact:

1. District Industries Centre: MUMBAI CITY (MAHARASHTRA)
2. MSME-DI: MUMBAI (MAHARASHTRA)

BE A CHAMPION with the Ministry of MSME

PED CERTIFIED

AQSR

Certificate of Registration

PRESSURE EQUIPMENT DIRECTIVE

Certificate No. 15699

This is to certify that the Management System of

BHAGYALAXMI INDUSTRIAL

Regd Off : 156-158, C. P. Tank, Shop No. 4, Laxminiwas Bldg., Ardeshir Dadi Cross Lane, Mumbai – 400004, Maharastra, India.

Factory Address : Ghojaria Estate, Plot No. 1, Kharwa Lane, Mumbai 400004, Maharashtra, India.

has been found to conform to

European Directive 2014/68/EU

This Certificate is valid for the below scope of services and as mentioned in Annexure

Manufacturer, Supplier & Exporter for Stainless Steel, Carbon Steel & High Nickel Alloys in the form of Pipes, Pipe Fittings, Flanges, Round Bars, Sheets & Fasteners.

Date of Registration 20/11/2021 — Date of Expiry 19/11/2022

Re-certification Date 19/11/2024 — Signed on behalf of AQSR

ISO 45001:2018

AQSR

Certificate of Registration

OCCUPATIONAL HEALTH & SAFETY

Certificate No. 15701

This is to certify that the Management System of

BHAGYALAXMI INDUSTRIAL

Regd Off : 156-158, C. P. Tank, Shop No. 4, Laxminiwas Bldg., Ardeshir Dadi Cross Lane, Mumbai – 400004, Maharastra, India.

Factory Address : Ghojaria Estate, Plot No. 1, Kharwa Lane, Mumbai 400004, Maharashtra, India.

has been found to conform to

ISO 45001:2018

This Certificate is valid for the below scope of services

Manufacturer, Supplier & Exporter for Stainless Steel, Carbon Steel & High Nickel Alloys in the form of Pipes, Pipe Fittings, Flanges, Round Bars, Sheets & Fasteners.

Date of Registration 20/11/2021 — Date of Expiry 19/11/2022

Re-certification Date 19/11/2024 — Signed on behalf of AQSR

QUALITY POLICY

"Bhagyalaxmi Industrial" is committed to providing "World Class" services to "World Class" customers who share our goal of being the best in our respective industries. Our quality objectives are summarized in our policy:

"We Take Pride In Our Quality"

We are committed to providing superior quality and performance. Our commitment to total customer service and satisfaction includes:

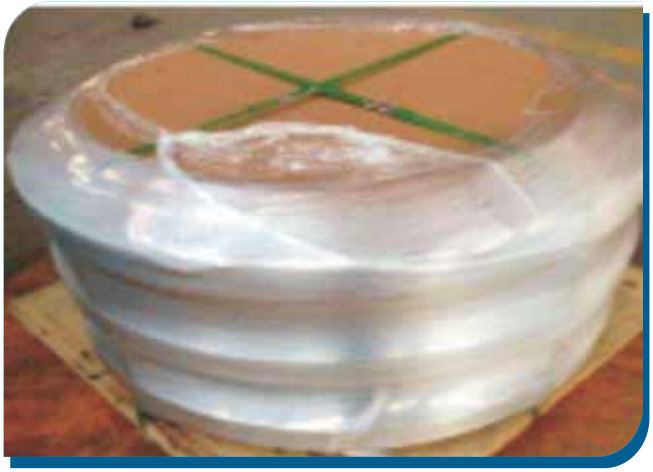
- Using state of the art manufacturing technologies and equipment
- Coupled with highly trained and capable personnel...
- Supported by appropriate professional staff and manufacturing systems...
- Including a Quality Control Lab committed to providing quality testing services to its clients...
- Creating a team environment of Total Quality Management.
- That assures our customers the highest quality products and services; the most
- flexible and responsive delivery performance; at fair and competitive prices.

The commitment to "Best in Class" performance underlies our company philosophy of "Total Quality Management." We strive to form active partnerships with our customers to achieve long term, mutually profitable, and stable relationships.

Through continuous and aggressive efforts to improve our capabilities and performance, we strive to set the standards against which our competition will be measured.

PACKAGING METHODS

Different packing material and method according to the product and size, to protect the products from any harms during land and sea transportation, loading and unloading.



BHAGYALAXMI INDUSTRIAL

We Stand Ahead In Quality...

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Web: www.bhagyalaxmiindustrial.com

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156-158, C. P. Tank, Shop No. 4,
Laxminiwas Building,
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Mumbai – 400 004,
Landline: +91 2266381351

Fact. Address:
Plot No. 1 , Ghojaria Estate,
Mumbai – 400004,
Maharashtra, India,
Landline: +91 2223804444

Carbon Steel, Stainless Steel, Titanium & High Nickel Alloys

Pipes & Tubes, Butt-Weld Pipe Fittings, Forged Fittings,
Forged Flanges, Fasteners, Round Bars, Plates Sheets, Coils, Wires