L | Loonkar
E | Energy
V | Ventures

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COMPANY PROFILE

Loonkar Energy Ventures supplies Stainless Steel, Carbon Steel, Alloy Steel, and Nickel Alloy in the form of Pipes, Tubes, Fittings, Flanges, Round Bars, Plates, and Fasteners. Loonkar Energy Ventures has been producing steel tubular products since 1997, and it is now one of the largest steel exporters in India. We have obtained ISO 9001:2015, ISO 14001:2015, and OHSAS 18001:2015 certifications. All of our materials are sourced from reputable mills around the world, with PED and IBR certifications.

In addition to manufacturing pipe fittings and flanges, Loonkar Energy Ventures has expanded its business to include all sorts and sizes of industrial items such as pipes, tubes, fittings, flanges, fasteners, round bars, and plates.

Loonkar Energy Ventures also stocks pipes, fittings, flanges, and other industrial products. To suit our client's off-hand requirements, Loonkar Energy Ventures maintains a buffer stock of standard Pipes, Fittings, and Flanges ranging in size from 1/2" to 24". Customer-specified unique goods are created in accordance with ASTM/ASME standards within a limited time frame.

In addition to material delivery, we give a Mill Test Certificate by EN 10204 3.1/3.2.
We also complete orders under third-party inspections such as LRIS, BVIS, IBR, TUV, DNV, MECON, and MDL.

We are already registered with numerous Indian government enterprises to supply raw materials. Our products have been exported to the United States, the United Kingdom, the United Arab Emirates, Kuwait, Bahrain, Oman, Saudi Arabia, Malaysia, Thailand, Singapore, France, South Africa, Egypt, and Indonesia.

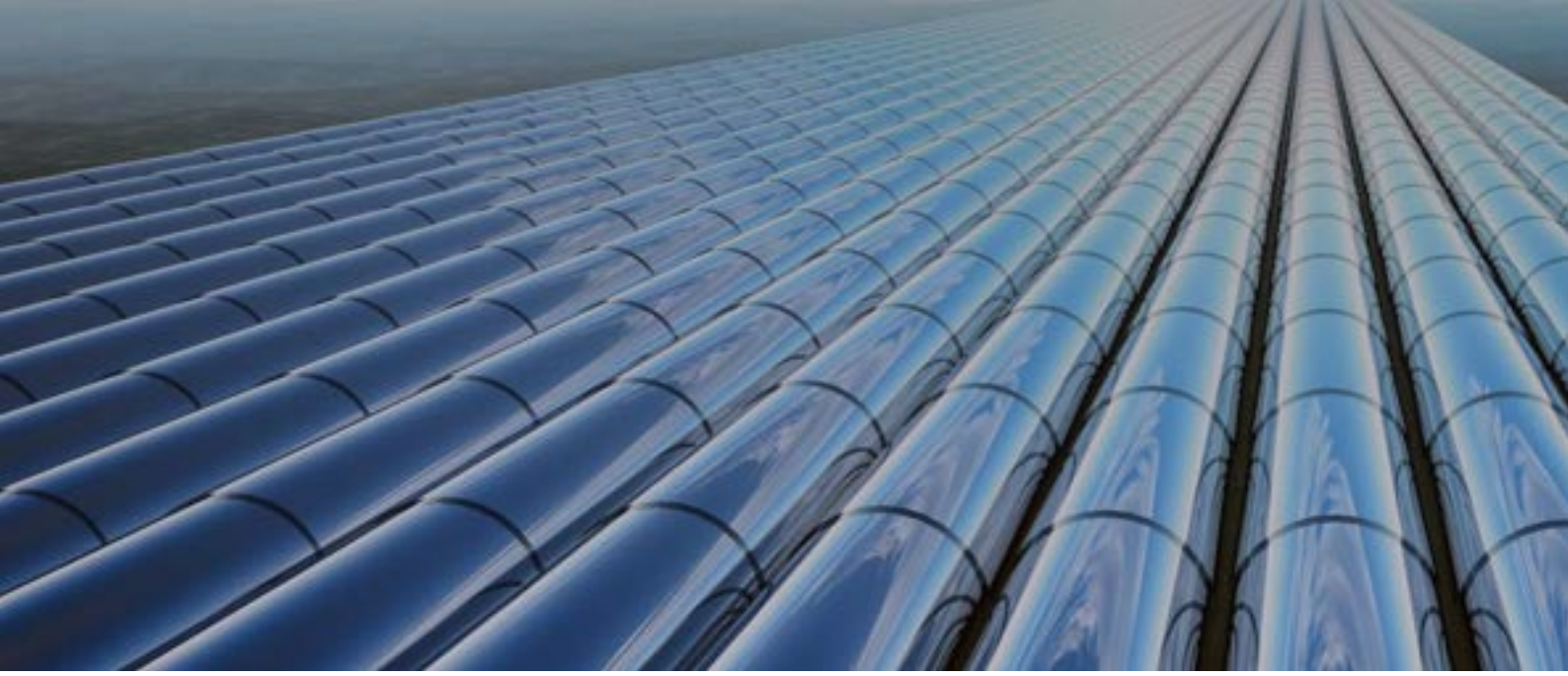
QUALITY HEALTH & SAFETY

A strict quality control system is in place to guarantee that every manufactured good complies with international standards of excellence.

Quality assurance is at the heart of all activities, and stringent quality control procedures are implemented in its in-house facilities for forging, machining, and heat treatment processes. We are proud to offer high-quality products that are manufactured to international standards.

THIRD PARTY INSPECTION

DNV · BUREAU VERITAS · NPCIL · TÜV · Lloyd's Register · SGS



GRADES

Stainless Steel

304, 304L, 304H, 309, 309S, 310, 310S, 310H, 316, 316L, 316H, 316Ti, 317, 317L, 321, 321H, 347, 347H, 310, UNS $31254, 904L Etc.

Duplex & Super Duplex

3UNS S31803, UNS $32205, UNS S32750, UNS S32760 Etc.

Carbon Steel

A106 Gr.B/Gr.C, A53 Gr.B, A179, A210 Gr.A1, BS 3059 Gr.360/440, A333 Gr.6,
API 5L Gr.B, X42, X46, X52, X56, X60, X65, X70 Etc.

Hastelloy Alloy

Hastelloy B2, Hastelloy C276, Hastelloy C22 Etc.

Incoloy Alloys

Alloy 800H/800HT, Alloy 825 Etc.

Inconel Alloys

Alloy 600, Alloy 601, Alloy 625, Alloy 718, Alloy 725 Etc.

Monel Alloys

Monel 400, Monel K500.Etc.

Titanium Alloy

Grade1,2&5 Etc.

Nickel Alloy

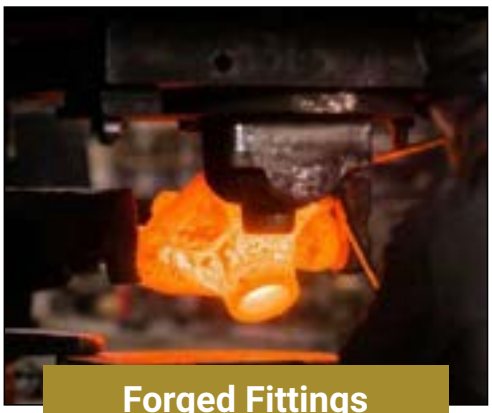
Alloy 200 & Alloy 201. Etc.

Copper / Cupro Nickel

90/10 (UNS C70600), 70/30 (UNS C71500). Etc.

Pipes & Tubes

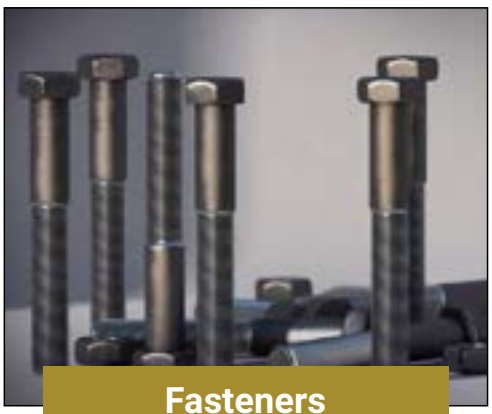
Buttweld Fittings



Forged Fittings

Round Bar

Flanges

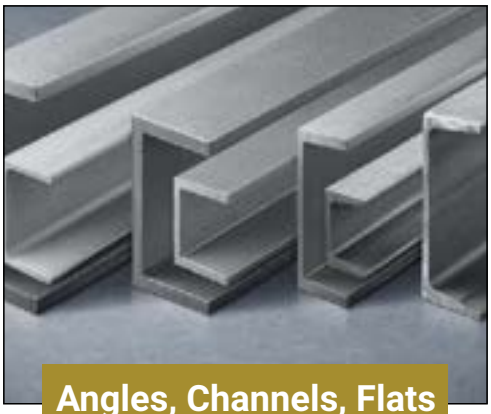


Fasteners

Sheet, Plates, Coils

Valves

Wire Road



Angles, Channels, Flats

Instrumentation Fittings

Wire Cable

We stockist, supplier, and export an extensive selection of high-quality pipes and tubes. Our clientele appreciate our qualities such as dimensional correctness, precise operation, and durability. Seamless steel pipe is formed by heating a solid circular steel 'billet' and pushing or pulling it over a form until it is moulded into a hollow tube. A pipe is a tubular section or hollow cylinder with a circular cross-section that is primarily used to transport flowable substances such as liquids and gases (fluids), slurries, powders, and masses of tiny solids. We provide our valued customers with customised sizes and forms.

Are you looking for a reputable stockist who can provide you with high-quality Pipes and Tubes? If so, you've come to the right place because Loonkar Energy Ventures is a prominent manufacturer, supplier, and exporter of high-quality pipes and tubes around the world. These products are designed in such a way that they may easily meet the wants and desires of customers and clients. These pipes and tubes are best recognised for their great tensile strength, longevity, workability, welding ability, and hardness. Furthermore, they may be employed at high and increased temperatures, providing improved performance.

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

Nominal Bore		Outside Diameter	Schedule 5S		Schedule 10S		Schedule 40S		Schedule SOS		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 Extn 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	10	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	10	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	20	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	30	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												
700 750	28 30	711.0 762.0	7.92 7.92	137.4 147.3	12.7 12.7	218.7 234.6	15.88 15.88	271 .2 292.18	9.53 9.53	165.0 176.8					12.7 12.7	218.7 234.7												
800 850	32 34	813.0 864.0	7.92 7.92	157.0 167.0	12.7 12.7	250.6 266.6	15.88 15.88	312.0 332.1	9.53 9.53	188.2 200.3	17.48 17.48	342.9 364.9			12.7 12.7	250.6 266.6												
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												

A 106 Gr B
API - 5L Gr.B
A 333 Gr.6


90° Elbow

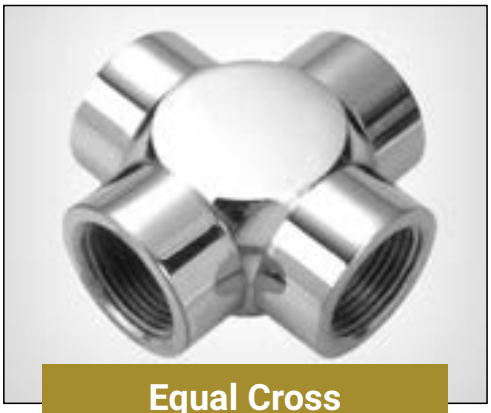

45° Elbow


Equal Tee


Reducing Tee


Concentric Reducer


Eccentric Reducer


Equal Cross


Reducing Cross

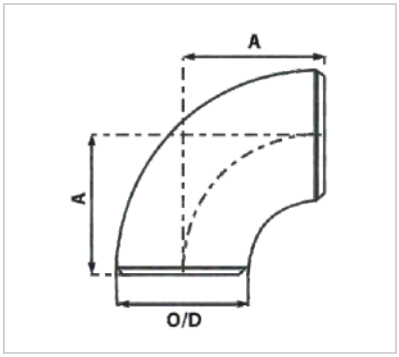

End Cap


Pipe Nipple

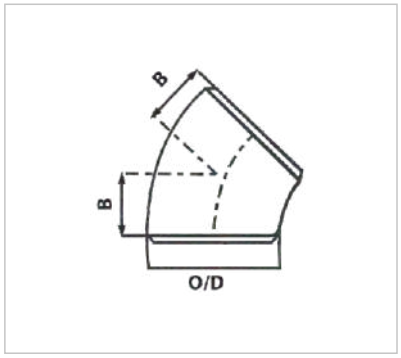

Plug


Union

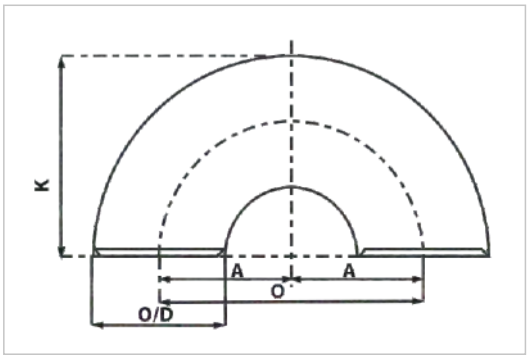
LR ELBOW & LR RETURN / U BEND



90° LR ELBOW



45° LR ELBOW



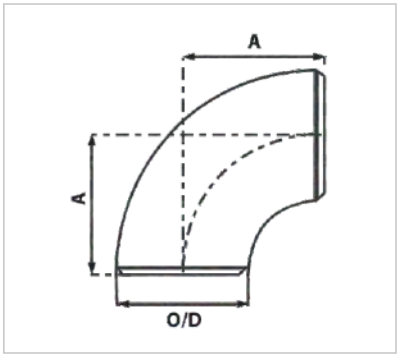
180° LR RETURN / U BEND

B16.9

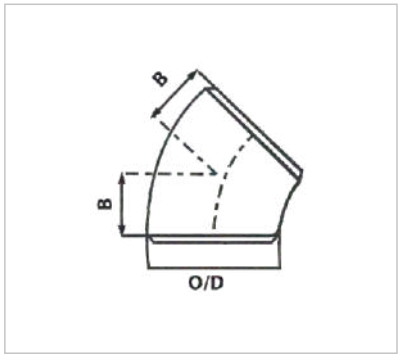
Nominal Pipe Size (NPS)	Outside Diameter at Bevel (O/D)	Dimension A	Dimension B	Center to Center O	Back to Face K
1/2"	21.3	38	16	76	48
3/4"	26.7	38	19	76	51
1"	33.4	38	22	76	56
1.1/4"	42.2	48	25	95	70
1.1/2"	48.3	57	29	114	83
2"	60.3	76	35	152	106
2.1/2"	73.0	95	44	190	132
3"	88.9	114	51	229	159
3.1/2"	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.

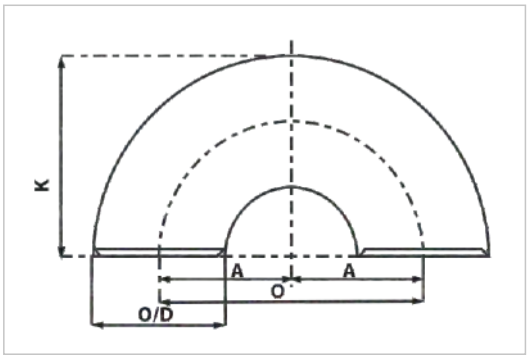
SR ELBOW & LR RETURN / U BEND



90° SR ELBOW



45° SR ELBOW



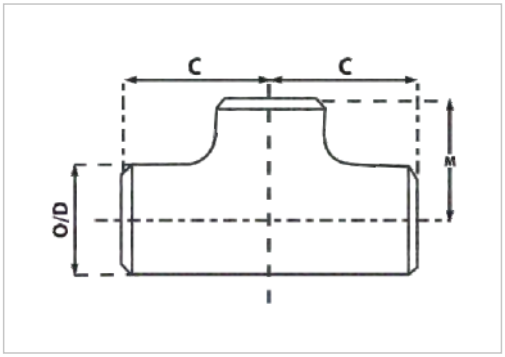
180° SR RETURN / U BEND

B16.9 / B16.28

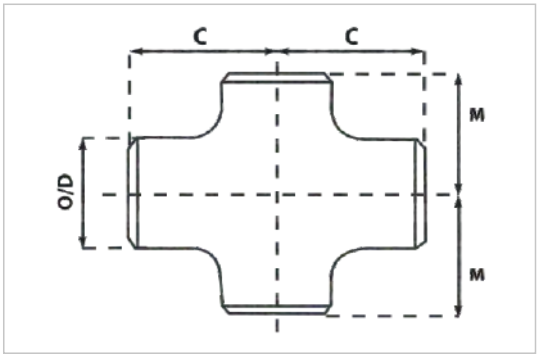
Nominal Pipe Size (NPS)	Outside Diameter at Bevel (O/D)	Dimension A	Dimension B	Center to Center O	Back to Face K
1/2"	21.3	.....	.....	.....	.....
3/4"	26.7	.....	.....	.....	....
1"	33.4	25	....	51	41
1.1/4"	42.2	32	....	64	52
1.1/2"	48 .3	38	....	76	62
2"	60.3	51	...	102	81
2.1/2"	73.0	64	....	127	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



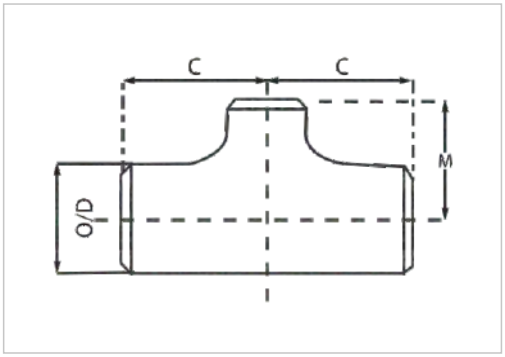
EQUAL CROSS

B16.9

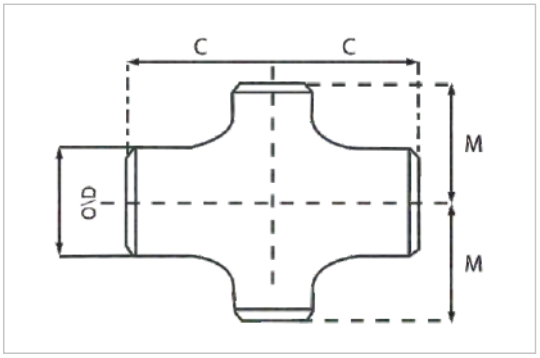
Nominal Pipe Size (NPS)	Outside Diameter at Bevel (O/D)	Run 'C'	Outlet 'M'
1/2"	21.3	25	25
3/4"	26 .7	29	29
1"	33.4	38	38
1.1/4"	42 .2	48	48
1.1/2"	48 .3	57	57
2"	60.3	64	64
2.1/2"	73.0	76	76
3"	88.9	86	86
3.1/2"	101.6	95	95
4"	114.3	105	105
5"	141.3	124	124
6"	168.3	143	143
8"	219.1	178	178
10"	273.0	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.

EQUAL TEE & CROSS



UNEQUAL TEE



UNEQUAL CROSS

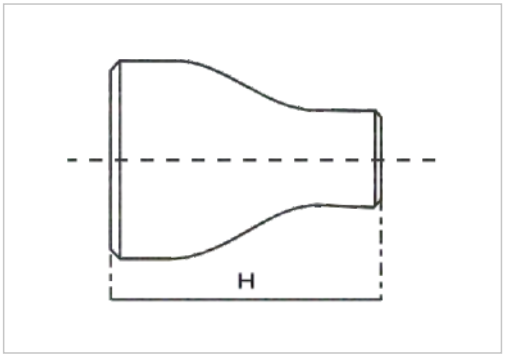
B16.9

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		
11/4"	1/2"	42.2	21.3	48	48
	3/4"		26.7		
	1"		33.4		
11/2"	1/2"	48.3	21.3	57	57
	3/4"		26.7		
	1"		33.4		
	11/4"		42.2		
2"	3/4"	60.3	26.7	64	44
	1"		33.4		51
	11/4"		42.2		57
	11/2"		48.3		60
2 1/2"	1"	73	33.4	76	57
	11/4"		42.2		64
	11/2"		48.3		67
	2"		60.3		70
3"	11/4"	88.9	42.2	86	70
	11/2"		48.3		73
	2"		60.3		76
	21/2"		73		83
31/2"	11/2"	101.6	48.3	95	79
	2"		60.3		83
	21/2"		73		89
	3"		88.9		92
4"	11/2"	114.3	48.3	105	86
	2"		60.3		89
	21/2"		73		95
	3"		88.9		98
	31/2"		101.6		102
5"	2"	141.3	60.3	124	105
	21/2"		73		108
	3"		88.9		111
	31/2"		101.6		114
	4"		114.3		117
6"	21/2"	168.3	73	143	121
	3"		88.9		124
	31/2"		101.6		127
	4"		114.3		130
	5		141.3		137

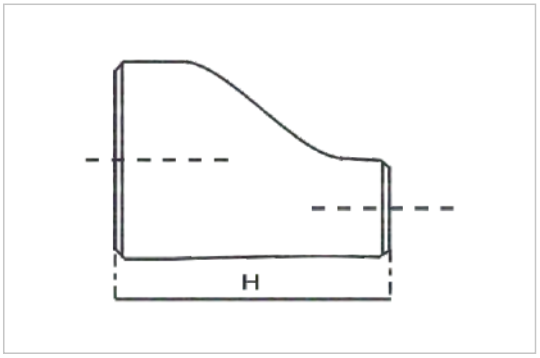
Nominal Pipe Size		Outside diameter at bevel		Center-to-End	
				Run (C)	Outlet (M)
8"	31/2"	219.1	101.6	178	152
	4"		114.3		156
	5"		141.3		162
	6"		168.3		168
10"	4"	273	114.3	216	184
	5"		141.3		191
	6"		168.3		194
	8"		219.1		203
12"	5"	323.8	141.3	254	216
	6"		168.3		219
	8"		219.1		229
	10"		273		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

REDUCER : CONCENTRIC & ECCENTRIC



CONCENTRIC REDUCER



ECCENTRIC REDUCER

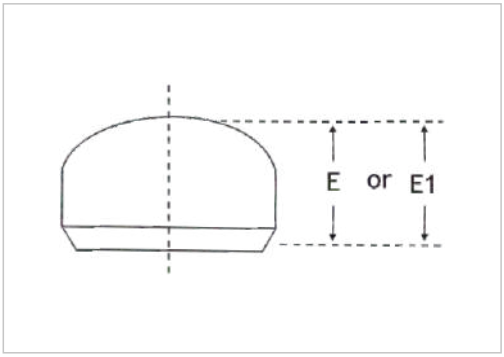
B16.9

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
1x 3/4	33.4	26.7	51
1x 1/2	33.4	21.3	51
11/4 x 1	42.2	33.4	51
11/4 x 3/4	42.2	26.7	51
11/4 x 1/2	42.2	21.3	51
11/2 x 11/2	48.3	42.2	64
11/2 x 1	48.3	33.4	64
11/2 x 3/4	48.3	26.7	64
11/2 x 1/2	48.3	21.3	64
2 x 11/2	60.3	48.2	76
2 x 11/4	60.3	42.2	76
2 x I	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 11/2	73	48.3	89
2 1/2 x 11/4	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 11/2	88.9	48.3	89
3 x 11/4	88.9	42 .2	89
3 1/2 x 3	101.6	88.9	102
31/2 x 21/2	101.6	73	102
3 1/2 x 2	101.6	60.3	102
3 1/2 x 11/2	101.6	48.3	102
3 1/2 x 11/4	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 11/2	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
IO x 6	273.1	168.1	178
IO 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

PIPE ENDS CAPS



ENDS 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	...	...

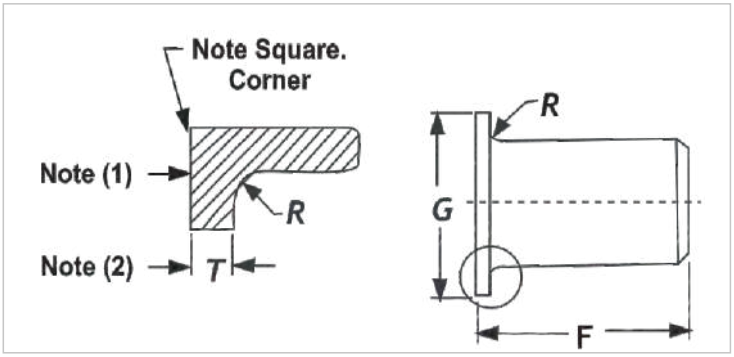
GENERAL NOTE:
(a) Dimensions are in inches.
(b) The shape of these caps shall be ellipsoidal and shall con- form to the shape requirements as given in the ASME Boiler and Pressure Vessel Code

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.

Note : All Dimensions are in inches

LAP-JOINT STUB ENDS



Enlarged Section of Lap

B16.9

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

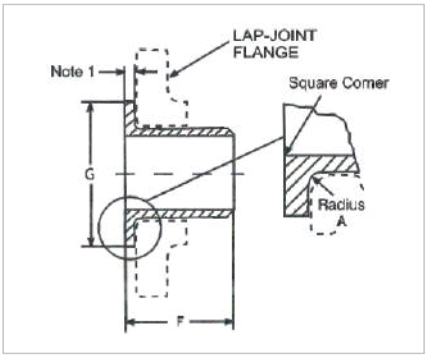
GENERAL NOTES:

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.

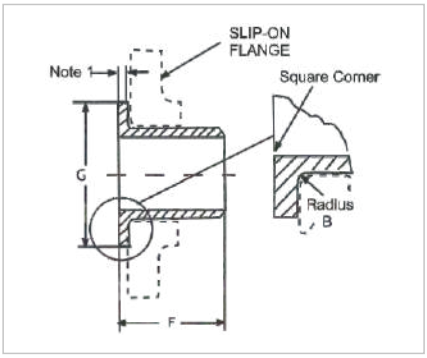
NOTES:

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

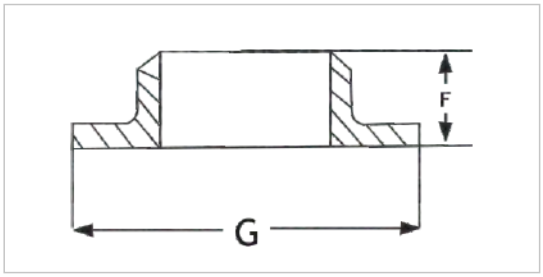
MSS SP 43

Nominal Pipe Size	Outside Diameter at Bevel	Out side Diameter of lap G	Stub Ends		
				Radius* of Fi	let
			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 40$ 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.

LAP-JOINT STUB ENDS MSS SP 43

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


Slipon Without Hub

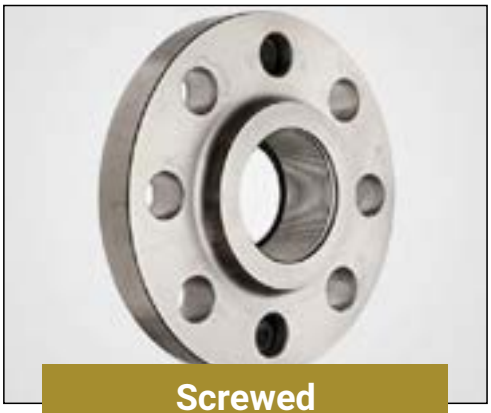

Slipon With Hub


Weldneck


Blind


Socketweld


Lap Joint


Screwed


Orifice

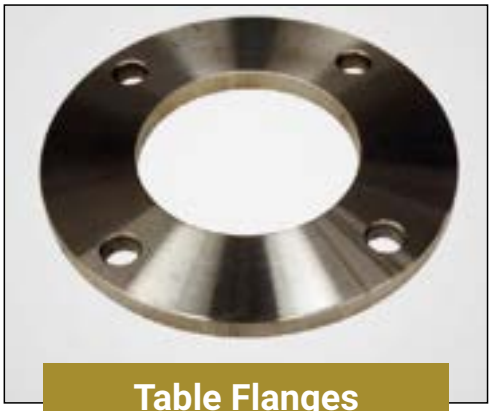
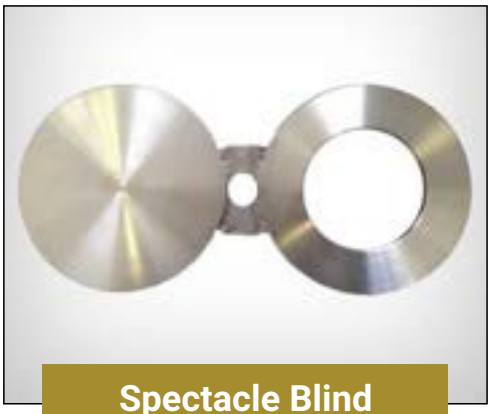


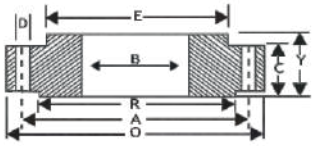
Table Flanges


Spectacle Blind

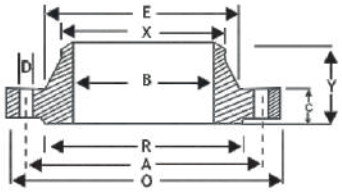

Ring Joint


Long Weldneck

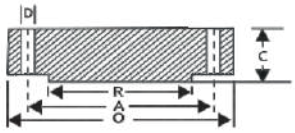
FLANGES CLASS 150 & 300



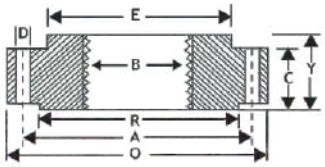
Slip-On Flanges



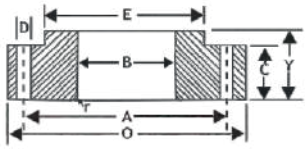
Welding Neck Flanges



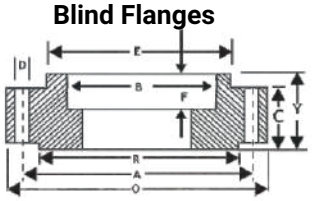
Blind Flanges



Threaded Flanges



Lap Joint Flanges



Socket Weld Flanges

DIMENSIONS OF CLASS150 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			Dia Bore		Dia of R/F R	Depth of Socket F	Pipe Dia X
							S / O & S IW y	WIN y	UJ y	S/O & SIW B	UJ B			
15	88.9	60.3	15.9	4	11.1	30.2	15.9	47.6	15.9	22.3	22.9	34.9	9.5	21.33
20	98.4	69.8	15.9	4	12.7	38.1	15.9	52.4	15.9	27.7	28.2	42.9	11.1	26.67
25	107.9	79.4	15.9	4	14.3	49.2	17.5	55.6	17.5	34.5	35.0	50.8	12.7	33.40
32	117.5	88.9	15.9	4	15.9	58.7	20.6	57.1	20.6	43.2	43.7	63.5	14.3	42.16
40	127.0	98.4	15.9	4	17.5	65.1	22.2	61.9	22.2	49.5	50.0	73.0	15.9	48.26
50	152.4	120.6	19.0	4	19.0	77.8	25.4	63.5	25.4	62.0	62.5	92.1	17.5	60.31
65	177.8	139.7	19.0	4	22.2	90.5	28.6	69.8	28.6	74.7	75.4	104.8	19.0	73.02
80	190.5	152.4	19.0	4	23.8	107.9	30.2	69.8	30.2	90.7	91.4	127.0	20.6	88.90
100	228 .6	190.5	19.0	8	23.8	134.9	33.3	76.2	33.3	116.1	116.8	157.2	23.8	114.30
125	254 .0	215.9	22 .2	8	23.8	163.5	36.5	88.9	36.5	143.8	144.5	185.7	23.8	141.30
150	279.4	241 .3	22 .2	8	25.4	192.1	39.7	88.9	39.7	170.7	171.4	215.9	27.0	168.27
200	342.9	298.4	22.2	8	28.6	246.1	44.4	101.6	44.4	221 .5	222.2	269.9	31.7	219 07
250	406.4	361.9	25.4	12	30.2	304.8	49.2	101.6	49.2	276.3	277.4	323.8	33.3	273.05
300	482.6	431.8	25.4	12	31.8	365.1	55.6	114.3	55.6	327.1	328.2	381.0	39.7	323.85
350	533.4	476.2	28.6	12	34.9	400.0	57.1	127.0	79.4	359.1	360.2	412.7	41.3	355.60
400	596.9	539.7	28.6	16	36.5	457.2	63.5	127.0	87.3	410.5	411.2	469.9	44.4	406.40
450	635.0	577.8	31.7	16	39.7	504.8	68.3	139.7	96.8	461.8	462.3	533.4	49.2	457.20
500	698.5	635.0	31.7	20	42.9	558.8	73.0	144.5	103.2	513.1	514.3	584.2	54.0	508.00
600	812.8	749.3	34.9	20	47.6	663.6	82.5	152.4	111.1	615.9	615.9	692.1	63.5	609.60

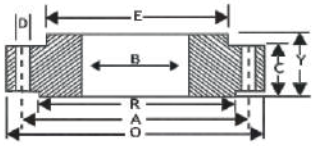
DIMENSIONS OF CLASS 300 FLANGES AS PER B 16.5

Nominal Pipe Size	Flange Dia O	Dia of Bolt Circle A	No. Of Bolt Holes D	No. Of Holes	Thk of Flange C	Dia of Hub E	Length through Hub			Dia Bore		Dia of R/F R	Depth of Socket F	Pipe Dia X
							S / O & S / W y	WIN y	L/ J y	SIO & SIW B	L/ J B			
15	95.2	66.7	15.9	4	14.3	38.1	22.2	52.4	22.2	22.3	22.9	34.9	9.5	21.33
20	117.5	82.5	19.0	4	15.9	47 .6	25.4	57.1	25.4	27.7	28.2	42.9	11.1	26.67
25	123.8	88.9	19.0	4	17.5	54.0	27.0	61.9	27.0	34.5	35.0	50.8	12.7	33.40
32	133.3	98.4	19.0	4	19.0	63.5	27.0	65.1	27.0	43.2	43.7	63.5	14.3	42.16
40	155.6	114.3	22.2	4	20 .6	69.8	30.2	68.3	30.2	49.5	50.0	73.0	15.9	48.26
50	165.1	127.0	19.0	8	22.2	84.1	33.3	69.8	33.3	62.0	62.5	92.1	17.5	60.31
65	190.5	149.2	22 .2	8	25.4	100.0	38.1	76.2	38.1	74.7	75.4	104.8	19.0	73.02
80	209.5	168.3	22.2	8	28.6	117.5	42.9	79.4	42.9	90.7	91.4	127.0	20.6	88.90
100	254.0	200.0	22.2	8	31.8	146.0	47.6	85.7	47.6	116.1	116.8	157.2		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	23.8	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

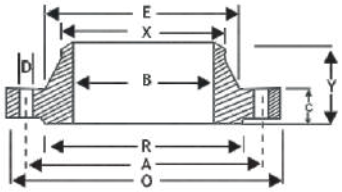
Metric values are direct conversion from Inches table of B16.5

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

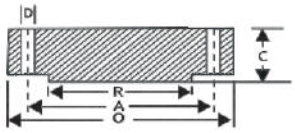
FLANGES CLASS 600 & 900



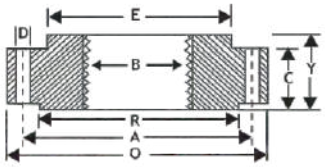
Slip-On Flanges



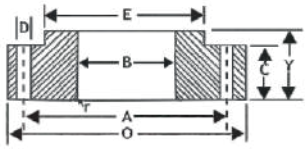
Welding Neck Flanges



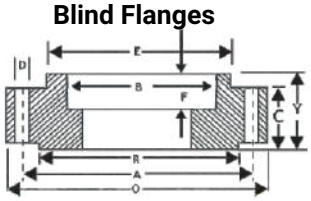
Blind Flanges



Threaded Flanges



Lap Joint Flanges



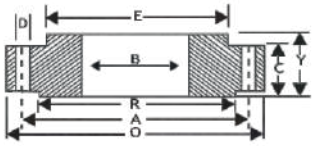
Socket Weld Flanges

DIMENSIONS OF CLASS 600 FLANGES AS PER B 16.5														
Nominal Pipe Size	Flange Dia 0	Dia of Bolt Circle A	No. of Bolt Holes D	No. of Holes	Thk of Flange C	Dia of Hub E	Length through Hub			Dia Bore		Dia of R/F R	Depth of Socket F	Pipe Dia X
							S / O & S IW y	WIN y	UJ y	S/O & SNI B	UJ B			
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		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	19.0	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

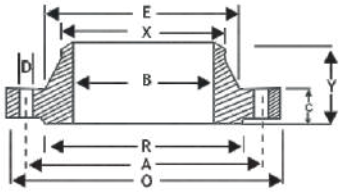
DIMENSIONS OF CLASS 900 FLANGES AS PER B 16.5														
Nominal Pipe Size	Flange Dia 0	Dia of Bolt Circle A	Dai Of Bolt Holes D	No. Of Holes	Thk of Flange C	Dia of Hub E	Length through Hub			Dia Bore		Dia of R/F R	Depth of Socket F	Pipe Dia X
							S / O & S / W y	W/N y	UJ y	S/O & SNI B	UJ B			
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).

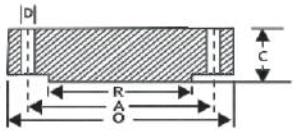
FLANGES CLASS 1500 & 2500



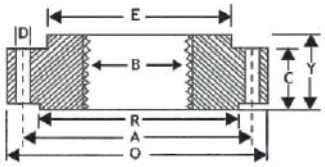
Slip-On Flanges



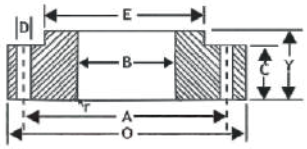
Welding Neck Flanges



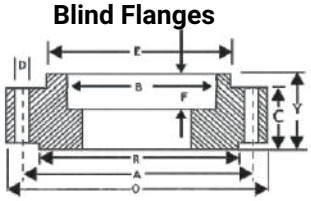
Blind Flanges



Threaded Flanges



Lap Joint Flanges



Socket Weld Flanges

DIMENSIONS OF CLASS1500 FLANGES AS PER B 16.5														
Nominal Pipe Size	Flange Dia 0	Dia of Bolt Circle A	Dai Of Bolt Holes D	No. Of Holes	Thk of Flange C	Dia of Hub E	Length through Hub			Dia Bore		Dia of R/F R	Depth of Socket F	Pipe Dia X
							S / O& S / W y	W/N y	UJ y	S/O & SN/ B	UJ B			
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 B 16.5														
Nominal Pipe Size	Flange Dia 0	Dia of Bolt Circle A	Dai Of Bolt Holes D	No. Of Holes	Thk of Flange C	Dia of Hub E	Length through Hub			Dia Bore		Dia of R/F R	Depth of Socket F	Pipe Dia X
							S / O & S / W y	W/N y	UJ y	S/O & SN/ B	UJ B			
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	730		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	730	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).


90° Elbow


45° Elbow


Tee

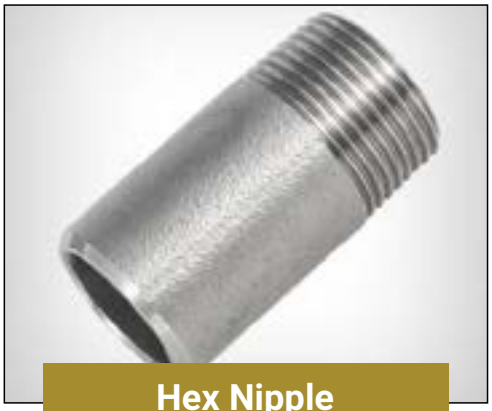

Cross Tee

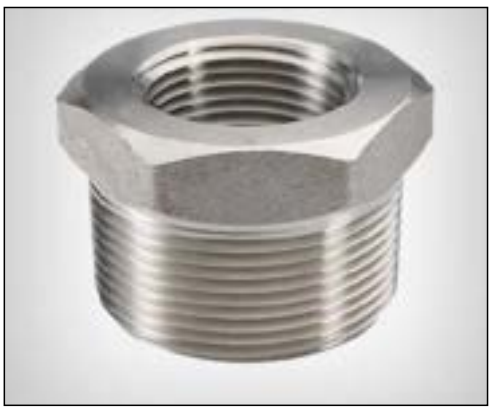

Coupling


Street Elbow

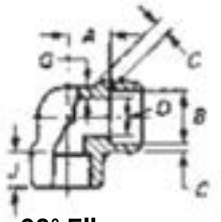

End Caps


Plug

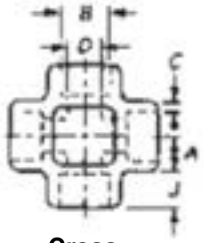

Hex Nipple



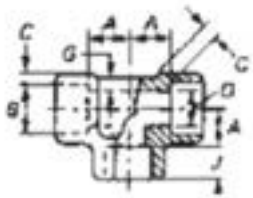
SOCKET WELDING FITTINGS



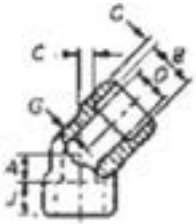
90° Elbow



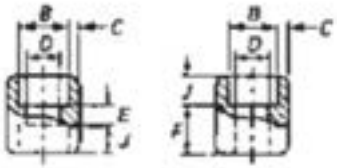
Cross



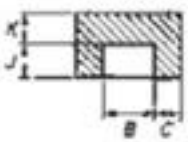
Tee



45° Elbow



Half Coupling



Cap

B16.11

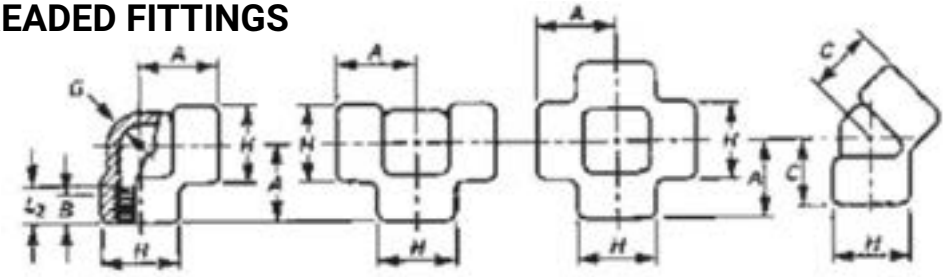
Norn. Pipe Size	Socket Bore Dia.(2) B	Bore Diameter of Fittings (2) D			Socket Wall Thickness (1) C						Body Wall G			Depth of Socket J Min.	Center to Bottom of Socket - A						Laying Lengths		Tolerances .:':			End Wall Thickness K mio		
		Class Designation			3000		6000		9000		Class Designation				90° Elbows, Tees, and Crosses			45° Elbows			Couplings E	Half Couplings F	A	E	F	Class Designation		
		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
314	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 *y,*	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 *y,*	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



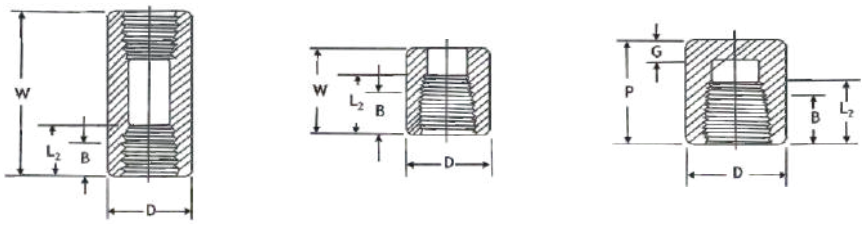
90° Elbow | Tee | Cross | 45° Elbow

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,
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
318	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
314	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
2 112	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, (effective length of external thread) required by American National Standard for Pipe Threads (ANSI/ASME B1.20.1).

COUPLINGS & CAPS



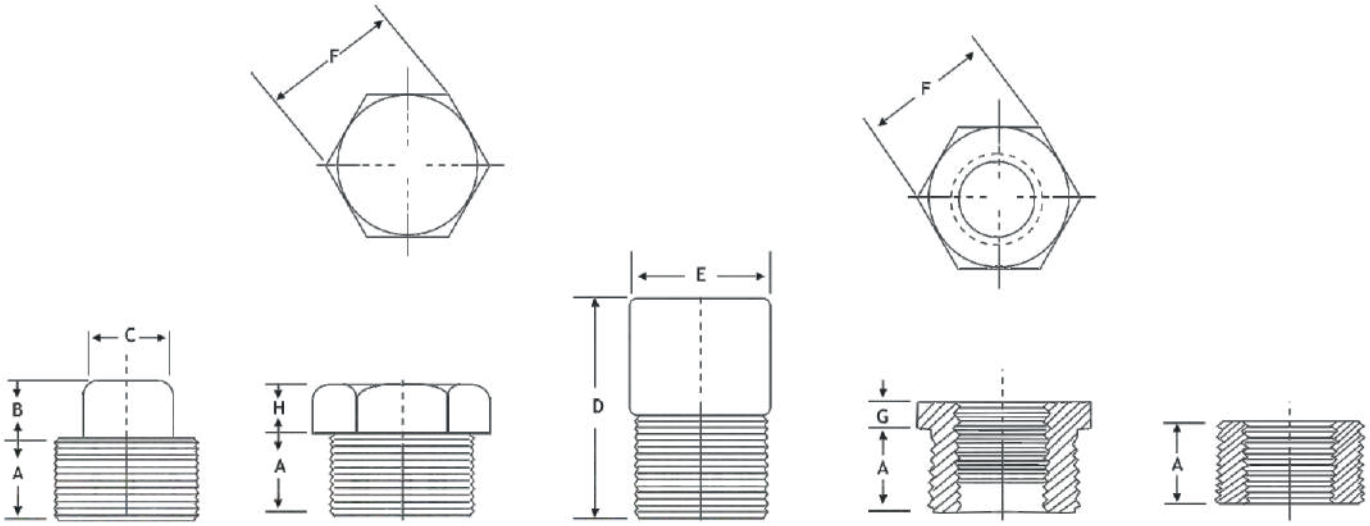
B16.11

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 8: 6000	3000	6000	3000	6000	3000	6000	B	L,
1/8	1.25	0.75	1.06	0.62	0.88	0.19	0.25	0.25	0.2639
1/4	1.38	1.00		0.75	1.00	0.19		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, (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



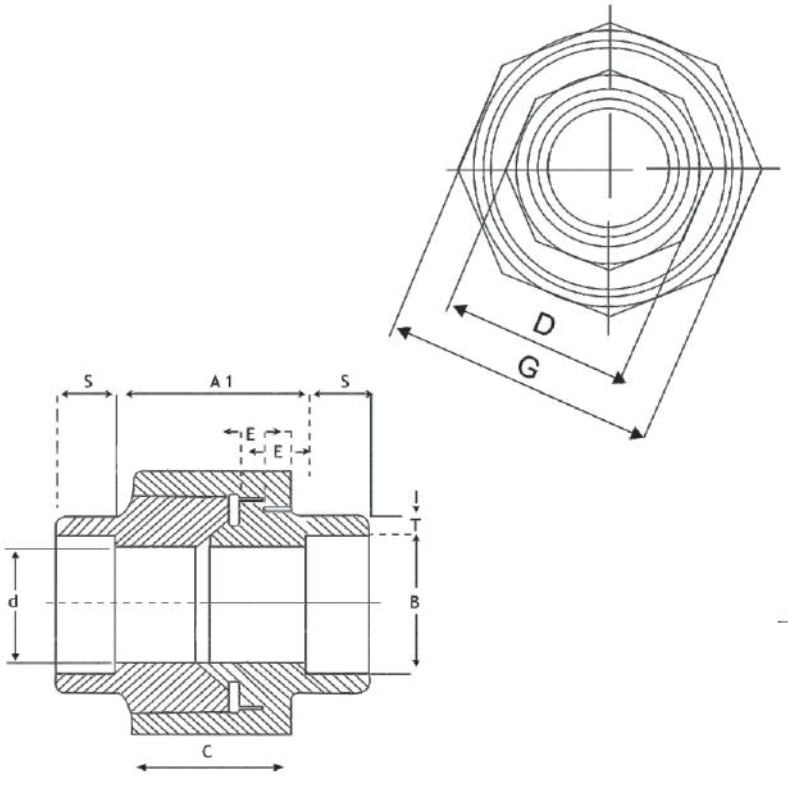
Square Head Plug | Hex Head Plug | Round Head Plug | Hex Head Bushing | Flush Bushing

B16.11

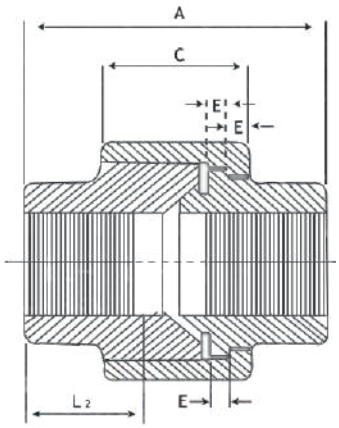
Nominal Pipe Size	Length (Minimum) A	Plugs Square Head		Plugs Round Head		Hex Plugs & Bushings		
		Height of Square (Minimum) B	Width Flats (Minimum) C	Nominal Diameter of Head E	Length (Minimum) D	Width Flats (Nominal) F	Hex Height (Min.)	
							Bushing G	Plug H
1/8	0.38	0.25	0.28	0.41	1.38	0.44	--	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

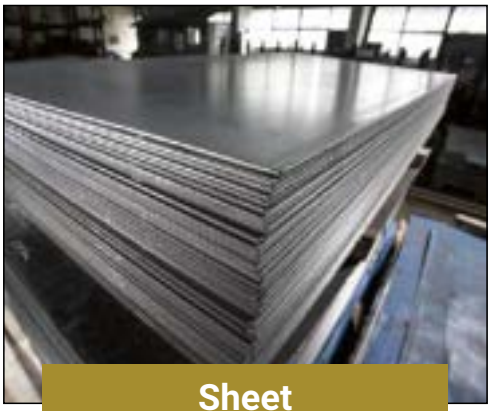


Screwed Union

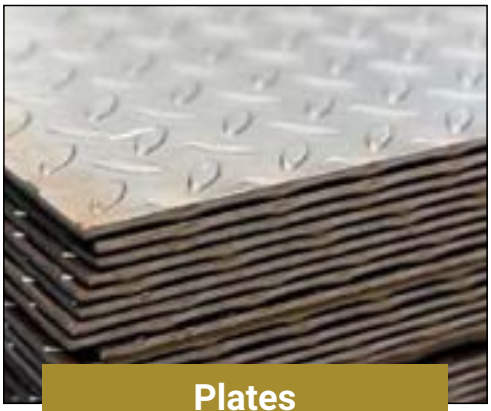
BS 3799

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,	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.



Sheet



Plates

Coils

Sheet And Plate Weight Chart

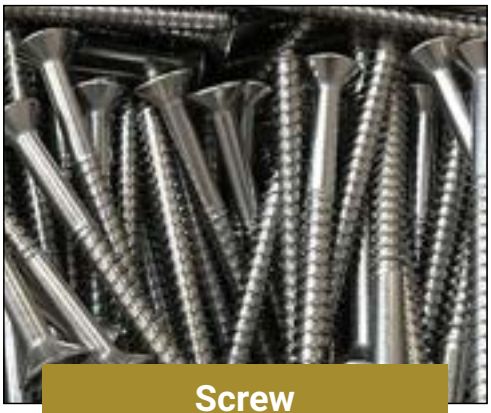
Pla te Thickness (m m)	Weight (kg/m)	kg/meter (width 1200mm)	kg/meter (width 1500mm)	kg/meter (width 1800mm)	kg/meter (w idth 2400mm)
3	23.SS	28.3	3S.3	42.4	S6.S
4	31.4	37.7	47 .1	S6.S	75.4
S	39.2S	47.1	S8.9	70.7	94.2
6	47.1	S6.S	70.7	84.8	113
8	62.8	75.4	94 .2	113	150.7
10	78.S	9•	118	U1	188
12	94.2	11 3	141	170	226
16	125.6	1S1	188	226	301
20	1S7	188	236	283	377
22	172.7	207	2S9	311	41S
2S	196.2S	236	294	3S3	471
28	219.8	264	330	396	S28
32	251 .2	301	377	4S2	603
36	282.6	339	424	S09	678
40	314	377	471	S6S	7S4
4S	3S3.2S	424	S30	636	848
SO	392.S	471	S89	707	942
SS	431 .75	S1 8	648	777	1036
60	471	S6S	707	848	1130
6S	S10	61 2	76S	918	1224
70	549.5	6S9	824	989	1319
7S	S88.7S	707	883	1060	1413
80	628	7S4	942	1130	1507
90	706.S	848	1060	1272	1696
100	78S	942	1178	1413	1884

Note:
All dimension in mm
Range: 0.3 mm to 150 mm thickness in sheet, plates & coils
Type : coils, foils, roll, plain sheet, shim sheet, perforated sheet, chequered plate, strip, flat, blank (circle), ring (flange)

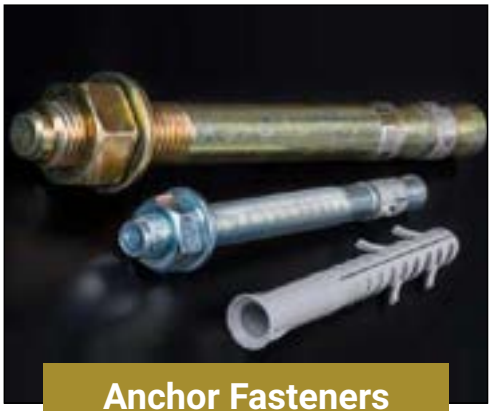

Stud


Nuts


Bolts

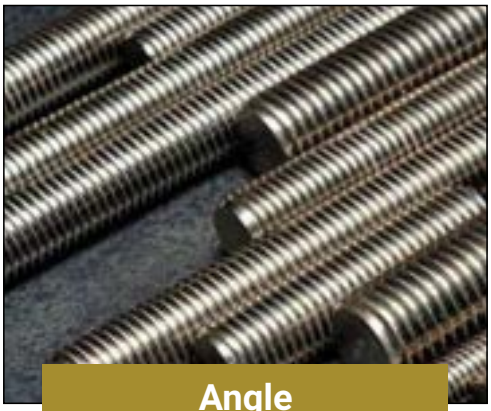

Screw


Washer


Anchor Fasteners

Fasteners Range

SPECIFICATIONS OF FASTENERS	
Standard	ASTM F593, F594, A193,A194 / ASME SF593, F594, SA193, Sa194
Bolt / Screw Size	M3 - M56 j 3/6" to 2" I Custom Sizes
Nuts Size	M3 - M56 j 3/6" to 2" I Custom Sizes
Washers Size	M3 - M56 j 3/6" to 2" I Custom Sizes
Machine Screws Size	M1.6 - M12
Self Tapping Screw Size	No.2 - No. 14
Length	3 mm to 200 mm
Threads	UNF, BSW, BSF, METRIC, UNC, or as required
Form	Hex, Threading, Square, Round as per Gauge Etc.
Dimensions	DIN 931, 933, 934, 7991, 976, 125, ASME B18.2.1, B18.3
Threads	Unless otherwise specified, the threads shall be rolled or cut & tapped horizontally or vertically
Types	Bolts, Nuts, Stud Bolts, Washers, Threaded Rod, Anchor Fasteners, Eye Bolt, Stud, Cotter Pin, Socket Screw, Fine Fasteners & Spares, Foundation Fasteners, Hexagon Castle Nuts, Hexagon Domed Cap Bolts, Hexagon Thin Nuts etc.



Angle

Channel

Flat

Angle, Channel & Flat Range

SPECIFICATIONS OF ANG LE I CHAN NEL I FLAT	
Standard	ASTM A 276/A 276M, A 484/A 484M, A 564/A 564M, A 582/A582M, A 638 /A 638M, A705/A705M
Dimension	EN, DIN, JIS, ASTM, BS, ASME, AISI
Angle Sizes	Smm to 9mm
Flat Sizes	2mm 100mm etc.
Thickness	3.0mm - 120mm
Length	3MTR, 4MTR, SMTR, 6MTR, or Custom Cut Sizes
Manufacturing Process	Hot rolled (HR), Cold rolled (CR), Galvanized etc

Wire Road Range

SPECIFICATIONS OF WIRE & FILLER WIRES	
Standard	ASTM A580, A313, A555, A493 / ASME SA580, SA313, SA555, SA493, AMS 5514
Dimensions	ANSI/AWCI - 01 -1992 and ASTM E 2016-11 and RRW 360
Length	Cut Lengths: 0.125" to 72", No Limit on Spooled Lengths
Diameter	0.0004" to 0.040", 10 microns to 1.0 mm, 1/16" (1.6 mm), Other Sizes on Request
Wire Density	8.89 g/cm3
Ultimate Strength (Mpa):	580-750
Wire Resistance (.m):	as standard
Wire Elongation (%):	28-30
Surface	Polished bright, Smooth, Bare, Enamel, PTFE, Ceramic, Plated
Tempers	Tempers range from dead soft annealed to ultra spring temper
Welded Wire mesh	Roll Width: 24inch, 36inch, 1Metre, 48inch, 72inch, or 84inch Roll Length: 100feet or 150feet
Wire Mesh Weaving Methods	plain *weave,* twill *weave,* dutch *weave*
Technique	Cold Rolled, hot rolled
Condition	M, Y, 1/2Hard
Offered in a wide range of packages including:	Spool, Reel, Coil, Bobbin, Carrier Custom packaging provided from as low as 1lb to 2001b tapered plastics
Form	Filler Wire, Flat Wire, Coil Wire, Electrode Wire, Welding Wire, Wire mesh, Knitted wire mesh, filter mesh, mig wire, tig wire, spring wire, stranded & twisted wirerm
Test Certificates	Tensile Testing, Hardness Testing, Metallographic Inspection / Investigation Corrosion Testing, Chemical Analysis,, Wrap Testing, Elevated Temperature Testing, Stress Rupture Testing (Creep)


Front Ferrule


Back Ferrule


Reducing Union


Bulkhead Red. Union


Bulkhead Elbow


Union Cross


Male Connector


45 Deg. Male Elbow


Male Elbow


Male Run Tee


Female Connector


Bulkhead F Connector

Ball Valves

Gate Valves

Globe Valves

Swing Check Valves

Butterfly Valves

Dual Plate Check Valves

Double Block Ball Valves

Cryogenic Valves

Bellow Seal Valves

3 way, 4 way Ball Valves

'Y' & 'T' Type Strainers

Plug Valves


OIL FIELD EQUIPMENTS


OIL & GAS FABRICATIONS


PETROLEUM & REFINERIES

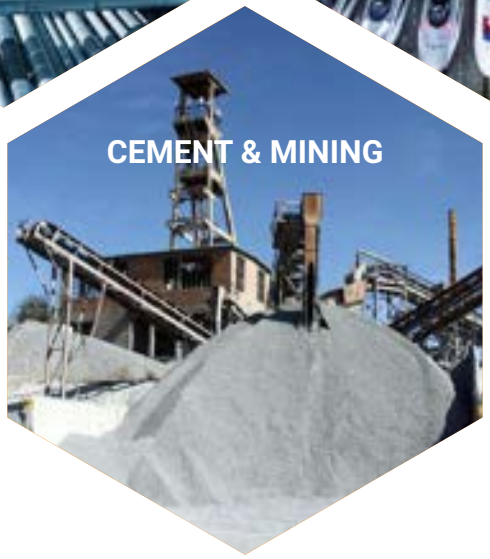

SHIP/ MARINE CHANDLERS


POWER & NUCLEAR PLANTS


PIPING INDUSTRIES


RAILWAY & AEROSPACE


CHEMICAL & PHARMACEUTICAL


CEMENT & MINING


TEXTILE & RUBBER

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V | VENTURES

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Carbon Steel, Stainless Steel, Duplex & Super Duplex, Titanium & High Nickel Alloys

Pipes & Tubes, Buttweld Fittings, Forged Fittings, Round Bar, Flanges, Fasteners, Sheet, Plates, Coils, Valves, Wire Road, Angles, Channels & Flats, Instrumentation Tube Fittings, Wire Cable Etc.