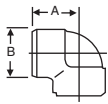


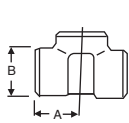


DIMENSION IN MM OF FORGED SCREWED FITTINGS TO ANSI B-16.11 THREADED TO ASA B 2.1

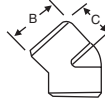
90° ELBOWS



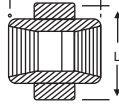
TEE



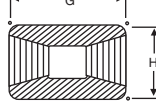
45° ELBOW



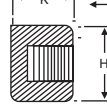
UNION



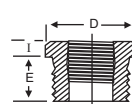
COUPLING



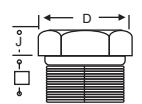
PIPE CAP



BUSHING



HEX HEAD PLUG

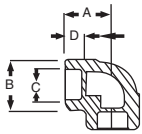


HALF COUPLING = G/2

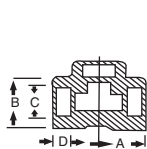
NOM BORE	PIPE O.D.	3000 L.B.S.						COMMON FACTORS						6000 L.B.S.					
		A	B	C	G	H	K	D	E	F	I	J	L	A	B	C	G	H	K
1/8"	10.3	21	22	17	32	16	19	11	10	40	-	6	-	25	25	19	32	22	-
1/4"	13.7	25	25	19	35	19	25	16	11	43	3	6	32	29	33	22	35	25	27
3/8"	17.2	29	33	22	38	22	25	17.5	13	48	4	8	38	33	38	25	38	32	27
1/2"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

SOCKET WELD FITTING TO ANSI B-16.11

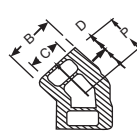
90° ELBOWS



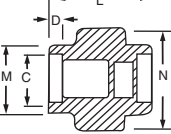
TEE



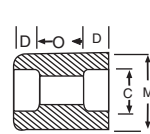
45° ELBOW



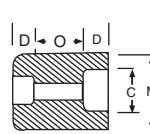
UNION



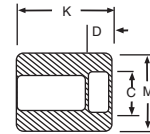
COUPLING



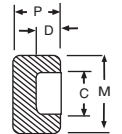
REDUCER



HALF COUPLING



CAP



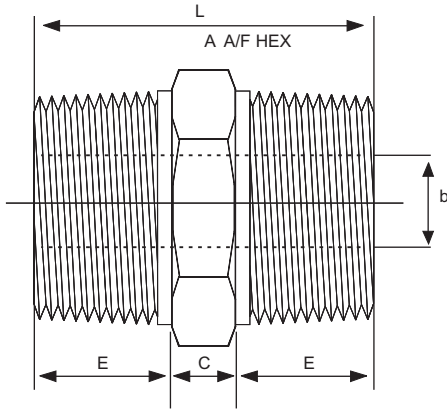
NOM BORE	PIPE O.D.	3000 L.B.S.									COMMON FACTORS				6000 L.B.S.				
		A	B	K	J	L	M	N	P	Q	C min	D min	O min	O max	A	B	M	K	N
1/8"	10.3	22	18.5	26	16	40	17.3	32	17.5	10	10.7	10	5	8	22	22	20	25	46
1/4"	13.7	22	22	26	18	43	21.2	32	17.5	10	14.1	10	5	8	27	25	24	25	51
3/8"	17.2	25	25	26	19	48	25.4	36	19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

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

Screwed Pipe Fittings

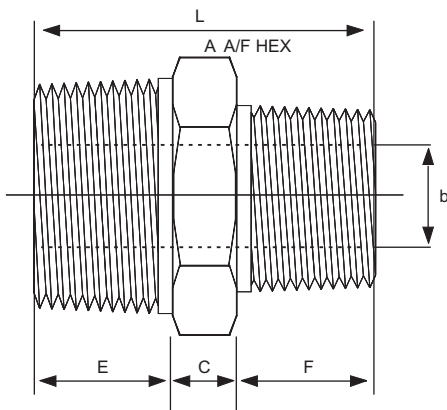
(Straight & Reducing Hexagon Nipples)
(Dimensions in Millimetres)

Pressure Class 3000



N.B	Dim.A (mm)	Dim.b (mm)	Dim.C (mm)	Dim.E (mm)	Dim.F (mm)	Dim.L (mm)
6	11	5	6	10	.	26
8	15	8	6	15	.	36
8x6	15	5	6	15	10	31
10	18	11	3	16	.	40
10x8	18	8	3	16	15	39
15	22	14	8	20	.	38
15x10	22	11	8	20	16	44
15x8	22	8	8	20	15	43
20	27	19	10	21	.	52
20x15	27	14	9	21	20	50
20x10	27	11	9	21	16	46
25	35	24	10	25	.	60
25x20	35	19	10	25	21	56
25x15	35	14	10	25	20	55
40	50	38	16	26	.	68
40x25	50	24	16	26	25	67
40x20	50	19	16	26	21	63
40x15	50	14	16	26	20	62
50	62	49	17	27	.	71
50x40	62	38	17	27	26	70
50x25	62	24	18	27	25	70
50x20	62	19	17	27	21	65
50x15	62	14	18	27	20	65

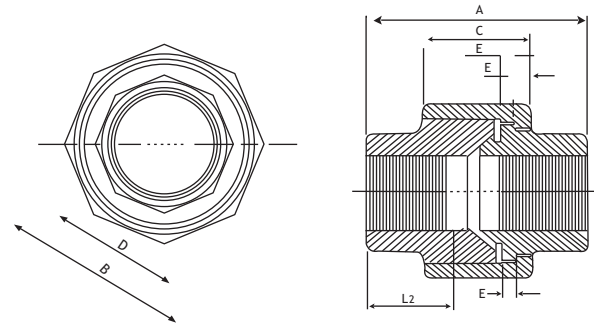
Pressure Class 6000



N.B	Dim.A (mm)	Dim.b (mm)	Dim.C (mm)	Dim.E (mm)	Dim.F (mm)	Dim.L (mm)
6	11	2	6	10	.	26
8	15	6	6	15	.	36
8x6	15	2	6	15	10	31
10	18	8	3	16	.	40
10x8	13	6	8	16	15	39
15	22	11	8	20	.	48
15x10	22	8	8	20	16	44
15x8	22	6	8	20	15	43
20	27	13	10	21	.	52
20x15	27	11	9	21	20	50
20x10	27	8	9	21	16	46
25	35	17	10	25	.	60
25x20	35	13	10	25	21	56
25x15	35	11	10	25	20	55
40	50	30	16	26	.	68
40x25	50	17	16	26	25	67
40x20	50	13	16	26	21	63
40x15	50	11	16	26	20	62
50	62	39	17	27	.	71
50x40	62	30	17	27	26	70
50x25	62	17	18	27	25	70
50x20	62	13	17	27	21	65
50x15	62	11	18	27	20	65



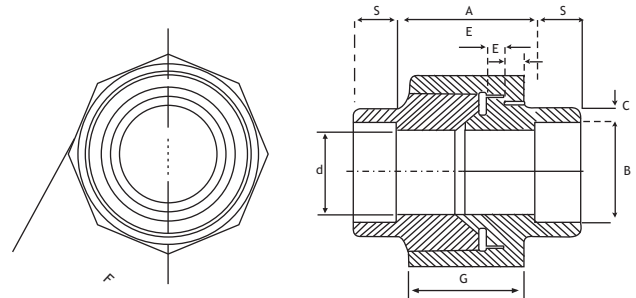
Screwed Unions
(Dimensions in Millimeters)



Pressure Class 3000

N,B	Dim,A (mm)	Dim.B (mm)	Dim.C (mm)	Dim.D (mm)	Dim.D (mm)
6	40	32	16	17	3.2
8	43	32	18	19	3.2
10	48	36	19	22	3.2
15	51	43	21	30	4.0
20	57	50	24	36	4.8
25	64	60	25	41	4.8
32	70	70	29	50	5.6
40	79	78	30	60	5.6
50	89	95	37	70	6.4
65	118	125	48	85	9.6
80	121	140	51	100	12.7

Socket Weld Unions
(Dimensions in Millimeters)



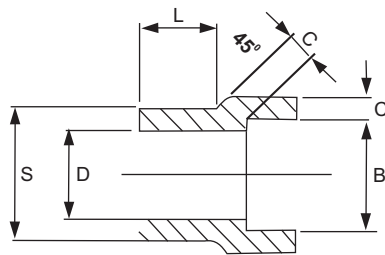
Pressure Class 3000

N,B	Dim.A (mm)	Dim.B (mm)	Dim.C (mm)	Dim.d (mm)	Dim.E (mm)	Dim.F (mm)	Dim.G (mm)	Dim.S (mm)
6	17	10.7	3.2	6.8	3.2	32	16	10
8	17	14.1	3.3	9.2	3.2	32	18	10
10	17	17.6	3.5	12.5	3.2	36	19	10
15	18	21.8	4.1	15.5	4.0	41	21	10
20	20	27.4	4.3	21.0	4.8	50	24	13
25	26	34.1	5.0	26.5	4.8	60	25	13
32	28	42.9	5.3	35.0	5.6	70	29	13
40	30	49.0	5.6	40.0	5.6	78	30	13
50	36	51.0	6.1	52.0	6.4	95	37	16
65	57	73.8	7.7	62.0	9.6	125	48	16
80	70	86.7	9.3	78.0	12.7	140	51	16

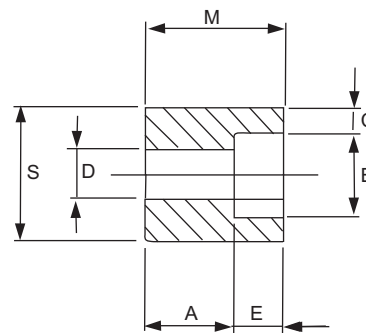


Welding Inserts

Nominal Size mm	3000 LB									6000 LB								
	A	E	M	L	B	D	S	C	Type	A	E	M	L	B	D	S	C	Type
10 X 8	19	10	-	14	14.22	9.0	17.15	3.78	1	21	10	-	14	14.22	6.5	17.15	4.60	1
15X8	21	10	-	16	14.22	9.0	21.34	3.78	1	21	10	-	16	14.22	6.0	21.34	4.60	1
15X8	21	10	-	16	17.65	12.5	21.34	4.01	2	23	10	-	16	17.65	9.0	21.34	5.03	1
20 X18	18	10	21		14.22	9.0	26.67	3.78	1	22	10	21		14.22	6.5	26.67	4.60	1
20 X10	16	10	21		17.65	12.5	26.67	4.01	2	22	10	21		17.65	9.0	26.67	5.03	1
20 X15	22	10		17	21.84	16.0	26.67	4.67	2	25	10		17	21.84	11.5	26.67	5.97	2
25 X 8	19	10	28		14.22	9.0	33.40	3.78	1	24	10	28		14.22	6.0	33.40	4.60	1
25 X 10	18	10	28		17.65	12.5	33.40	4.01	2	22	10	28		17.65	9.0	33.40	5.03	1
25 X 15	16	10	28		21.84	16.0	33.40	4.67	2	28	10	28		21.84	11.5	33.40	5.97	2
25 X 20	24	13		19	27.18	21.0	33.40	4.90	2	28	13		19	27.18	15.5	33.40	6.96	2
32 X 8	22	10	32		14.22	9.0	42.16	3.78	1	25	10	32		14.22	6.0	42.16	4.60	1
32 X 10	21	10	32		17.65	12.5	42.16	4.01	2	24	10	32		17.65	9.0	42.16	5.03	2
32 X 15	19	10	32		21.84	16.0	42.16	4.67	2	22	10	32		21.84	11.5	42.16	5.97	2
32 X 20	18	13	32		27.18	21.0	42.16	4.90	2	21	13	32		27.18	15.5	42.16	6.96	2
32 X 25	25	13	-	21	33.91	26.5	42.16	5.69	2	30	13	-	21	33.91	20.5	42.16	7.92	2
40 X 10	22	10	33		17.65	12.5	48.26	4.01	1	28	10	33		17.65	9.0	48.26	5.03	1
40 X 15	21	10	33		27.18	16.0	48.26	4.67	2	27	10	33		21.84	11.5	48.26	5.97	1
40 X 20	19	13	33		24.18	21.0	48.26	4.90	2	25	13	33		27.18	15.5	48.26	6.96	2
40 X 25	16	13	33		33.91	26.5	48.26	5.69	2	29	13	33		33.91	20.5	48.26	7.92	2
40 X 32	28	13		22	42.67	35.0	48.26	6.07	2	35	13	-	22	42.67	29.5	48.26	7.92	2
50 X 15	25	10	38		21.84	16.0	60.32	6.35	1	28	10	38		21.84	11.5	60.32	5.97	1
50 X 20	24	13	38		27.18	21.0	60.32	4.90	2	27	13	38		27.18	15.5	60.32	6.96	2
50 X 25	22	13	38		33.91	26.5	60.32	5.69	2	25	13	38		33.91	20.5	60.32	7.92	2
50 X 32	21	13	38		42.67	35.0	60.32	6.07	2	24	13	38		42.67	29.5	60.32	7.92	2
50 X 40	32	13		25	48.77	41.0	60.32	6.35	2	39	13		25	48.77	34.0	60.32	8.92	2
65 X 20	40	13	54		27.18	21.0	73.02	4.90	1	43	16		38	61.24	43.0	73.02	10.92	1
65 X 25	38	13	54		33.91	26.5	73.02	5.69	2									
65 X 32	37	13	54		42.67	35.0	73.02	6.07	2									
65 X 40	35	13	54		48.77	41.0	73.02	6.35	2									
65 X 50	46	16		38	61.24	52.5	73.02	6.93	2									
80 X 25	32	13	48		74.01	26.5	88.90	5.69	1									
80 X 32	30	13	48		42.67	35.0	88.90	6.07	2									
80 X 40	29	13	48		48.77	41.0	88.90	6.35	2									
80 X 50	25	16	48		61.24	52.5	88.90	6.93	2									
80 X 65	38	16		32	74.01	62.5	88.90	8.76	2									
100 X 32	43	13	60		42.67	35.0	114.30	6.07	2									
100 X 40	42	13	60		48.77	41.0	114.30	6.35	2									
100 X 50	38	16	60		61.24	52.0	114.30	6.93	2									
100 X 65	38	16	60		74.01	62.5	114.30	8.75	2									
100 X 80	33	16	60		89.99	78.0	114.30	9.30										



TYPE 1



TYPE 2

DIMENSIONAL TOLERANCES FOR FORGED STEEL SCREWED AND SOCKET WELDING FITTINGS ANSI B 16.11

CENTRE TO BOTTOM OF SOCKET

For Sizes 6 NPS and 8 NPS	± 0.8
For Sizes 10 NPS, 15 NPS and 20 NPS	± 1.5
For Sizes 25 NPS, 32 NPS, 40 NPS and 50 NPS	± 2
For Sizes 65 NPS and larger	± 2.5

Sizes 15 NPS through 80 NPS are included for use with Schedule 160 pipe, Fittings for use with Double Extra Strong pipe are not included in this standard.

BORE DIAMETER OF SOCKET

For Sizes 50 NPS and Smaller	+ 0.25 - 0.00
For Sizes 65 NPS and larger	+ 0.35 - 0.00

BOTTOM TO BOTTOM OF SOCKETS COUPLINGS

For Sizes 6 NPS and 8 NPS	
For Sizes 10 NPS, 15 NPS and 20 NPS	± 1.5
For Sizes 25 NPS, 40 NPS and 50 NPS	± 3
For Sizes 65 and larger	± 4
	± 5

CONCENTRICITY OF BORES

The socket and fitting bores shall be concentric within a tolerance of ± 0.8 for all Sizes.

BOTTOM TO SOCKET TO OPPOSITE FACE HALF COUPLINGS

For Sizes 6 NPS and NPS	± 0.8
For Sizes 10 NPS, 15 NPS and 20 NPS	± 1.5
For Sizes 25 NPS, 32 nps, 40 NPS and 50 NPS	± 2
For Sizes 65 NPS and Larger	± 2.5

COINCIDENCE OF AXES

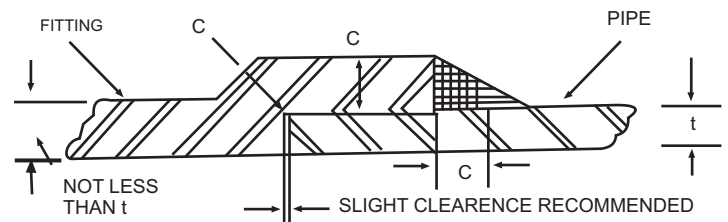
The maximum allowable variation in the alignment of the Socket and fitting bore axes shall be 1.5 mm in 304.8 mm

AMERICAN STANDARD B 16.11

This standard covers the following range of sizes for use with Schedules 40 and 80 pipe as of the publication date of this catalogue.

90° and 45° Elbows	6 NPS through 100 NPS
Tees	6 NPS through 100 NPS
Crosses	6 NPS through 100 NPS
Couplings	6 NPS through 100 NPS

FILLET WELD DIMENSIONS



C-Minimum = 1.25t (but not less than 4.0 mm.)

t = Minimum Pipe Wall Thickness

Minimum requirements for socket and fillet weld dimensions as prescribed in the American Standard Code for Pressure Piping, ASA B 31.1