



Section 9

High Pressure Fittings

High Pressure Fittings

Scope On Our Products	
TYPE :	ELBOW, M/F ELBOW, TEE, COUPLING, HALF COUPLING, CAP, PLUG, BUSHING, UNION, REDUCER INSERT, PIPE NIPPLE, OUTLETS ETC.
SIZE:	NPS 1/8" ~ 4"(6mm ~ 100mm)
RATING:	THREADED END – 3000lbs. SOCKET-WELD END – 3000lbs. BUTTWELD END – SCH80.
SPECIFICATIONS:	A: DIN.SPEC: ASME B16.11-2001(REVISION OF ASME 16.11 -1996) MSS – SP – 79,83,95, 97 AND BOTHWELL SPEC B: MATERIAL SPEC: ASTM A105
MARKING:	1. CARBON AND ALLOY STEEL: MARKED BY STAMPING. 2. 3/8" UNDER: BRAND ONLY. 3. 1/2" TO 4": MARKED BRAND, MATERIAL,HEAT NO. B16(BELONG TO ANSI B16. 11 PRODUCT), PRESSURE AND SIZE.
FINISHING:	BLACK, GALVANIZED (ON REQUEST), YELLOW DICHROMATE (ON REQUEST)

British Standard Threads							
ALL MEASUREMENTS IN MM							
NOMINAL BORE OF PIPE		APPROX OUTSIDE DIAMETER	NUMBER OF THREADS PER INCH	PITCH	DEPTH OF THREADS	DIAMETER AT GAUGE PLANE	LENGTH OF USEFUL THREAD
IMPERIAL	METRIC	A		P	H	B	E
1/8	6	10.16	28	0.907	0.581	9.72	6.5
1/4	8	13.66	19	1.337	0.856	13.15	9.7
3/8	10	17.17	19	1.337	0.856	16.66	10.1
1/2	15	21.51	14	1.814	1.162	20.95	13.2
3/4	20	27.00	14	1.814	1.162	26.44	14.5
1	25	33.93	11	2.309	1.479	33.24	16.8
1 1/4	32	42.59	11	2.309	1.479	41.91	19.1
1 1/2	40	48.48	11	2.309	1.479	47.80	19.1
2	50	60.47	11	2.309	1.479	59.61	23.4
2 1/2	65	76.09	11	2.309	1.479	75.18	26.7
3	80	88.87	11	2.309	1.479	87.88	29.8
4	100	114.14	11	2.309	1.479	113.03	35.8
5	125	139.65	11	2.309	1.479	138.43	40.1
6	150	165.12	11	2.309	1.479	163.83	40.1

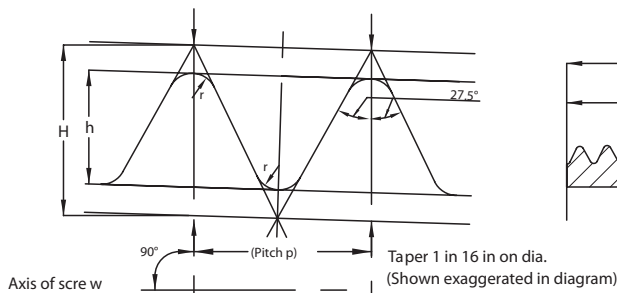


Fig. 2. (T ape)
 $H = 0.960237 \times p$
 $h = 0.640327 \times p$
 $r = 0.137278 \times p$

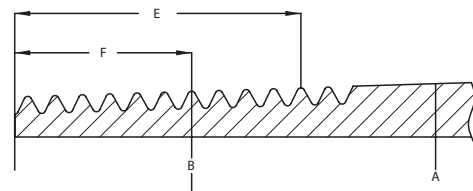


Fig. 3. (T ape)

High Pressure Fittings (cont)

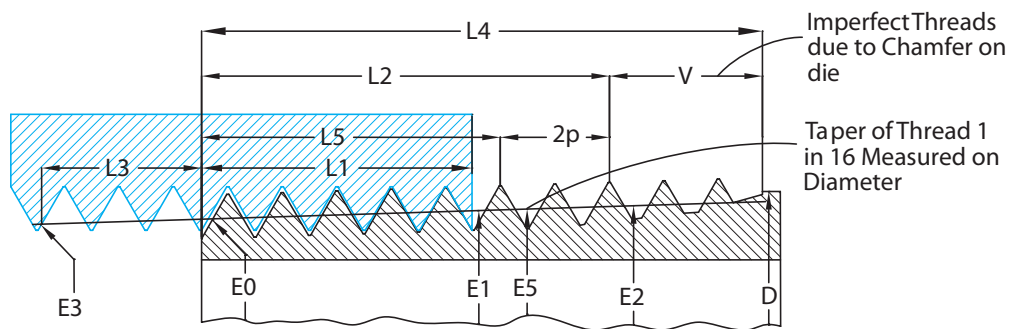
American National Standard Taper Pipe Threads, Npt								
NOMINAL BORE OF PIPE	OUTSIDE DIAMETER OF PIPE	THREADS PER INCH	PITCH	PITCH DIAMETER AT BEGINNING OF EXTERNAL THREAD	HANDTIGHT ENGAGEMENT		EFFECTIVE THREAD, EXTERNAL	
					LENGTH A (INCH)	DIAMETER B	LENGTH C (INCH)	DIAMETER
					L1	E1	L2	E2
1/16	0.3125	27	0.03704	0.27118	0.160	0.28118	0.2611	0.28750
1/8	0.405	27	0.03704	0.36351	0.1615	0.37360	0.2639	0.38000
1/4	0.540	18	0.05556	0.47739	0.2278	0.49163	0.4018	0.50250
3/8	0.675	18	0.05556	0.61201	0.240	0.62701	0.4078	0.63750
1/2	0.840	14	0.07143	0.75843	0.320	0.77843	0.5337	0.79179
3/4	1.050	14	0.07143	0.96768	0.339	0.98887	0.5457	1.00179
1	1.315	11 1/2	0.08696	1.21363	0.400	1.23863	0.6828	1.25630
1 1/4	1.660	11 1/2	0.08696	1.55713	0.420	1.58338	0.7068	1.60130
1 1/2	1.900	11 1/2	0.08696	1.79609	0.420	1.82234	0.7235	1.84130
2	2.375	11 1/2	0.08696	2.26902	0.436	2.29627	0.7565	2.31630
2 1/2	2.875	8	0.12500	2.71953	0.682	2.76216	1.1375	2.79062
3	3.500	8	0.12500	3.34062	0.766	3.38850	1.2000	3.41562
3 1/2	4.000	8	0.12500	3.83750	0.821	3.88881	1.2500	3.91562
4	4.500	8	0.12500	4.33438	0.844	4.38712	1.3600	4.41562
5	5.563	8	0.12500	5.39073	0.937	5.44929	1.4063	5.47862
6	6.625	8	0.12500	6.44609	0.958	6.50597	1.5125	6.54062

Angle between sides of thread is 60 degrees. Taper of thread, on diameter is 3 1/2 inch per foot. Angle of taper with center line is 1°47'. The basic maximum thread height, h, of the truncated thread is 0.8 x pitch of thread. The crest and root are truncated a minimum of 0.033 x pitch for all pitches. For maximum depth of truncation, see Table 2.

^A Also length of thin ring gauge and length from gauging notch to small end of plug gauge.

^B Also pitch diameter at gauging notch (handtight plane).

^C Also length of plug gauge.



Specifications

Minimum Wall Thickness				
ACCORDING TO ASME B16.11				
NPS	SOCKETWELD FITTINGS		THREADED FITTINGS	
	SOCKET WALL THICKNESS (MIN)	BODY WALL THICKNESS (MIN)	BODY WALL THICKNESS (MIN)	CAP END WALL THICKNESS (MIN)
1/8	3.2	2.4	3.0	5.0
1/4	3.3	3.0	3.5	5.0
3/8	3.5	3.2	3.5	5.0
1/2	4.1	3.8	4.0	6.5
3/4	4.3	3.9	4.5	6.5
1	5.0	4.6	5.0	9.5
1 1/4	5.3	4.9	5.5	9.5
1 1/2	5.6	5.1	5.5	11.0
2	6.1	5.6	7.0	12.5
2 1/2	7.7	7.0	7.5	16.0
3	8.3	7.6	9.0	19.0
4	9.4	8.6	11.0	22.0

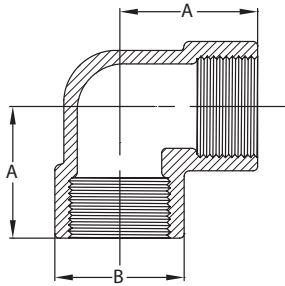
Dimensional Tolerance For Forged Socket Weld Fittings					
ACCORDING TO ASME B36.10					
ITEM	TYPE OF PIPE FITTING	1/8 TO 1/4	3/8 TO 3/4	1 TO 2	2 1/2 TO 4
Bore diameter of socket	ALL TYPES OF PIPE FITTINGS	0.3, -0			±0.4, -0
Bore diameter of fitting		±0.4			±0.8
Centrioity of bore		±0.8			
Centre to bottom of socket	45, 90D Elbow, Tee	±0.3	±1.5	±2	±2.5
Bottom to bottom of socket	Full coupling	±1.5	±3	±4	±5
Bottom of socket to opposite face	Half coupling	±0.8	±1.5	±2	±2.5

Specifications (cont)

Dimensions Of Seamless Steel Pipe														
ACCORDING TO ASME B36.10														
TOLERANCES			NPS	OUTSIDE DIAMETER			STEEL PIPE WALL THICKNESS							
A53 A106 O. D.	API 5L O.D.	A530 O.D.		AVG	MAX	MIN	S/10	S/30	S/40	STD	XS	S/80	S/160	XXS
+1/64 -1/32	+1/64 -1/32	+1/64 -1/32	1/8		10.7	9.5	1.2	1.5	1.7	S/40	S/80	2.4	3.2	4.8
			1/4	13.7	14.1	12.9	1.7	1.9	2.2	S/40	S/80	3.0	3.7	6.1
			3/8	17.1	17.5	16.3	1.7	1.9	2.3	S/40	S/80	3.2	4.0	6.4
			1/2	21.3	21.7	20.5	2.1	2.4	2.8	S/40	S/80	3.7	4.7	7.5
			3/4	26.7	27.1	25.9	2.1	2.4	2.9	S/40	S/80	3.9	5.5	7.8
			1	33.4	33.8	32.8	2.8	2.9	3.4	S/40	S/80	4.5	6.4	9.1
			1 1/4	42.2	42.6	41.4	2.8	3.0	3.6	S/40	S/80	4.9	6.4	9.7
			1 1/2	48.3	48.7	47.5	2.8	3.2	3.7	S/40	S/80	5.1	7.1	10.2
±1%	±.75%	+ 1/32 -1/32	2	60.3	60.9	59.7	2.8	3.2	3.9	S/40	S/80	5.5	8.7	11.1
			2 1/2	73.0	73.7	72.2	3.1	4.8	5.2	S/40	S/80	7.0	9.5	14.0
			3	88.9	89.8	88.0	3.1	4.8	5.5	S/40	S/80	7.6	11.1	15.2
			4	114.3	115.4	113.2	3.1	4.8	6.0	S/40	S/80	8.6	13.5	17.1

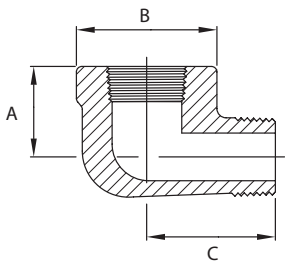
Pressure Temperature Chart																			
PSI (OF)																			
NOMINAL PRESSURE RATINGS	SCREWED AND SOCKET WELD FITTINGS																		
	-20 ~ 100°	150°	200°	250°	300°	350°	400°	450°	500°	550°	600°	650°	700°	750°	800°	850°	900°	950°	1000°
2000lb	2000	1970	1940	1915	1895	1875	1850	1810	1735	1640	1540	1430	1305	1180	1015	830	615	425	235
3000lb	3000	2955	2915	2875	2845	2810	2775	2715	2605	2460	2310	2150	1960	1775	1525	1250	925	640	355
6000lb	6000	5915	5830	5750	5690	5625	5550	5430	5210	4925	4620	4300	3920	3550	3050	2500	1855	1285	715

High Pressure 3000lb Threaded 90 Degree Elbow



High Pressure ASME B16.11-2001 90 Degree Threaded Elbow					
CODE		METRIC SIZE	A	B	APPROX KG/PC
NPT	BSPT				
NP3E008		8	25	25	0.14
NP3E010		10	28	33	0.29
NP3E015	BP3E015	15	33	38	0.43
NP3E020	BP3E020	20	38	46	0.69
NP3E025	BP3E025	25	44	56	1.14
NP3E032	BP3E032	32	51	62	1.42
NP3E040	BP3E040	40	60	75	2.63
NP3E050	BP3E050	50	64	84	2.92
NP3E065		65	83	146	5.99
NP3E080		80	95	121	8.88

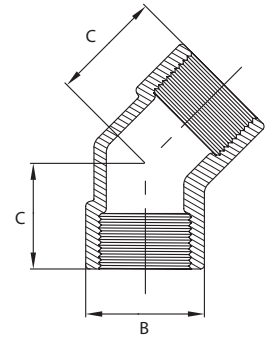
High Pressure 3000lb Threaded Male-Female Elbow



High Pressure ASME B16.11-2001 Threaded Male-Female 90 Degree Elbow					
CODE	METRIC SIZE	A	B	C	APPROX KG/PC
NPT					
NP3EMF008	8	22	25	32	0.11
NP3EMF010	10	25	33	38	0.22
NP3EMF015	15	28	38	41	0.31
NP3EMF020	20	35	46	48	0.53
NP3EMF025	25	44	56	57	1.02
NP3EMF032	32	51	62	66	1.13
NP3EMF040	40	54	75	71	2.01
NP3EMF050	50	64	84	84	2.91

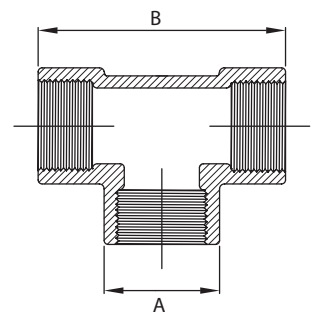
High Pressure 3000lb Threaded 45 Degree Elbow

High Pressure ASME B16.11-2001 45 Degree Threaded Elbow				
CODE	METRIC SIZE	B	C	APPROX KG/PC
NPT				
NP3E45008	8	25	19	0.12
NP3E45010	10	33	22	0.24
NP3E45015	15	38	25	0.34
NP3E45020	20	46	28	0.56
NP3E45025	25	56	33	0.94
NP3E45032	32	62	35	1.03
NP3E45040	40	75	35	2.05
NP3E45050	50	84	44	2.23

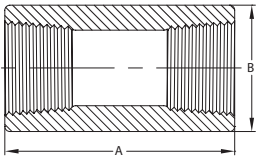


High Pressure 3000lb Threaded Equal Tee

High Pressure ASME B16.11-2001 90 Degree Threaded Elbow					
CODE		METRIC SIZE	A	B	APPROX KG/PC
NPT	BSPT				
NP3T008		8	25	50	0.20
NP3T010		10	33	56	0.38
NP3T015	BP3T015	15	38	66	0.56
NP3T020	BP3T020	20	46	76	0.92
NP3T025	BP3T025	25	56	88	1.49
NP3T032	BP3T032	32	62	102	1.76
NP3T040	BP3T040	40	75	120	3.27
NP3T050	BP3T050	50	84	128	3.53

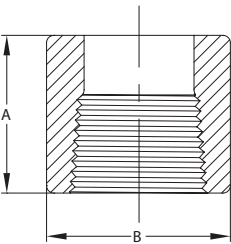


High Pressure 3000lb Threaded Coupling



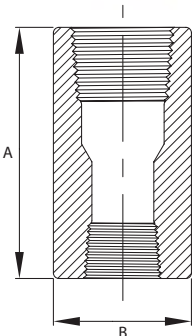
High Pressure ASME B16.11-2001 Threaded Coupling					
CODE		METRIC SIZE	A	B	APPROX KG/PC
NPT	BSPT				
NP3CF008	BP3CF008	8	35	19	0.04
NP3CF010	BP3CF010	10	38	22	0.06
NP3CF015	BP3CF015	15	48	28	0.13
NP3CF020	BP3CF020	20	51	35	0.19
NP3CF025	BP3CF025	25	60	44	0.45
NP3CF032	BP3CF032	32	67	57	0.81
NP3CF040	BP3CF040	40	79	64	1.07
NP3CF050	BP3CF050	50	86	76	1.40
NP3CF065		65	92	92	2.29
NP3CF080		80	108	108	3.38

High Pressure 3000lb Threaded Half Coupling



High Pressure ASME B16.11-2001 Threaded Half Coupling				
CODE	METRIC SIZE	A	B	APPROX KG/PC
NPT				
NP3CH010	10	19	22	0.03
NP3CH015	15	24	28	0.06
NP3CH020	20	26	35	0.10
NP3CH025	25	30	44	0.23
NP3CH032	32	34	57	0.34
NP3CH040	40	40	64	0.54
NP3CH050	50	43	76	0.70

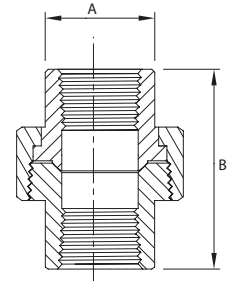
High Pressure 3000lb Threaded Reducing Coupling



High Pressure ASME B16.11-2001 Threaded Reducing Coupling				
CODE	METRIC SIZE	A	B	APPROX KG/PC
NPT				
NP3CR025015	25 X 15	60	44	0.60
NP3CR025020	25 X 20	60	44	0.52
NP3CR032020	32 X 20	67	57	0.90
NP3CR032025	32 X 25	67	57	0.85
NP3CR040032	40 X 32	79	64	1.30
NP3CR050025	50 X 25	86	76	1.80
NP3CR050040	50 X 40	86	76	1.60

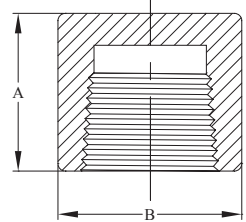
High Pressure 3000lb Threaded Union

High Pressure ASME B16.11-2001 Threaded Union					
CODE		METRIC SIZE	A	B	APPROX KG/PC
NPT	BSPT				
NP3U008	BP3U008	8	19.00	36.00	0.28
NP3U010	BP3U010	10	22.90	41.00	0.24
NP3U015	BP3U015	15	27.70	49.00	0.34
NP3U020	BP3U020	20	33.50	56.70	0.48
NP3U025	BP3U025	25	41.40	62.65	0.77
NP3U032	BP3U032	32	50.50	71.00	1.03
NP3U040	BP3U040	40	57.20	77.28	1.63
NP3U050	BP3U050	50	70.10	86.50	2.43



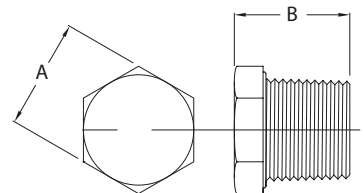
High Pressure 3000lb Threaded Cap

High Pressure ASME B16.11-2001 Threaded Cap				
CODE	METRIC SIZE	A	B	APPROX KG/PC
NPT				
NP3C015	15	32	28	0.11
NP3C020	20	37	35	0.18
NP3C025	25	41	44	0.37
NP3C032	32	44	57	0.62
NP3C040	40	44	64	0.72
NP3C050	50	48	76	1.09

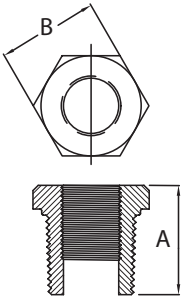


High Pressure 3000lb Hexagon Plug

High Pressure ASME B16.11-2001 Plug				
CODE	METRIC SIZE	A	B	APPROX KG/PC
NPT				
NP3P008	8	16	20	0.03
NP3P010	10	18	21	0.05
NP3P015	15	22	22	0.07
NP3P020	20	27	26	0.14
NP3P025	25	36	29	0.22
NP3P032	32	46	35	0.44
NP3P040	40	50	37	0.59
NP3P050	50	65	40	1.03
NP3P065	65	75	46	1.80

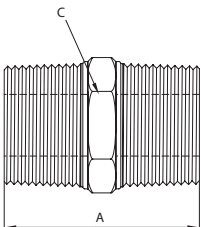


High Pressure 3000lb Hexagon Head Bush



High Pressure ASME B16.11-2001 Hex Head Bushing					
CODE		METRIC SIZE	A	B	APPROX KG/PC
NPT	BSPT				
NP3B010008	BP3B010008	10 X 8	17	18	0.02
NP3B015008	BP3B015008	15 X 8	19	22	0.05
NP3B015010	BP3B015010	15 X 10	19	22	0.03
NP3B020008	BP3B020008	20 X 8	22	27	0.10
NP3B020015	BP3B020015	20 X 15	22	27	0.06
NP3B025015	BP3B025015	25 X 15	25	35	0.15
NP3B025020	BP3B025020	25 X 20	25	35	0.11
NP3B032015	BP3B032015	32 X 15	28	46	0.30
NP3B032020	BP3B032020	32 X 20	28	46	0.28
NP3B032025	BP3B032025	32 X 25	28	46	0.21
NP3B040015	BP3B040015	40 X 15	29	50	0.45
NP3B040020	BP3B040020	40 X 20	29	50	0.41
NP3B040025	BP3B040025	40 X 25	29	50	0.33
NP3B040032	BP3B040032	40 X 32	29	50	0.20
NP3B050015	BP3B050015	50 X 15	31	65	0.83
NP3B050020	BP3B050020	50 X 20	31	65	0.76
NP3B050025	BP3B050025	50 X 25	31	65	0.70
NP3B050032	BP3B050032	50 X 32	31	65	0.55
NP3B050040	BP3B050040	50 X 40	31	65	0.43
NP3B080050	BP3B080050	80 X 50	38	90	1.49

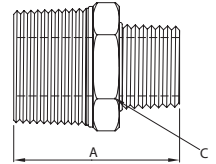
High Pressure 3000lb Hexagon Nipple



High Pressure ASME B16.11-2001 Hexagon Nipples				
CODE	METRIC SIZE	A	C	APPROX KG/PC
NPT				
NP3N008	8	36	17	0.04
NP3N010	10	36	19	0.05
NP3N015	15	47	24	0.09
NP3N020	20	48	30	0.15
NP3N025	25	59	35	0.47
NP3N032	32	60	46	0.45
NP3N040	40	62	50	0.62
NP3N050	50	68	65	1.03

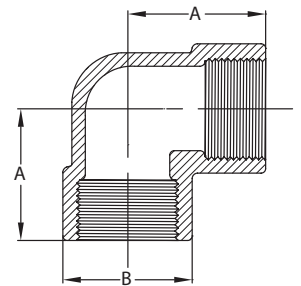
High Pressure 3000lb Reducing Hexagon Nipple

High Pressure ASME B16.11-2001 Reducing Hexagon Nipples				
CODE	METRIC SIZE	A	C	APPROX KG/PC
NPT				
NP3NR015008	15 x 8	42	24	0.08
NP3NR015010	15 x 10	42	24	0.08
NP3NR020015	20 x 15	48	30	0.12
NP3NR025015	25 x 15	54	35	0.24
NP3NR025020	25 x 20	54	35	0.20
NP3NR032015	32 x 15	55	46	0.46
NP3NR032020	32 x 20	55	46	0.45
NP3NR032025	32 x 25	60	46	0.44
NP3NR040015	40 x 15	62	50	0.62
NP3NR040020	40 x 20	62	50	0.60
NP3NR040025	40 x 25	62	50	0.53
NP3NR040032	40 x 32	62	50	0.52
NP3NR050040	50 x 40	66	65	0.84



High Pressure 6000lb Threaded 90 Degree Elbow

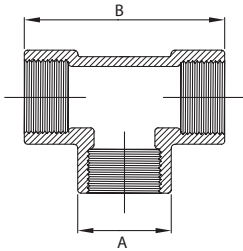
High Pressure ASME B16.11-2001 90 Degree Threaded Elbow				
CODE	METRIC SIZE	A	B	APPROX KG/PC
NPT				
NP6E015	15	38	46	0.80
NP6E020	20	44	56	1.31
NP6E025	25	51	62	1.61
NP6E040	40	64	84	3.79



High Pressure 6000lb Threaded Equal Tee



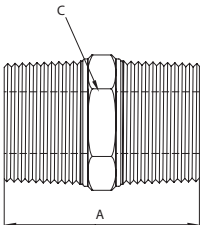
High Pressure ASME B16.11-2001 Threaded Equal Tee				
CODE	METRIC SIZE	A	B	APPROX KG/PC
NPT				
NP6T015	15	38	46	0.98
NP6T020	20	44	56	1.65
NP6T025	25	51	62	2.17
NP6T040	40	64	84	4.71



High Pressure 6000lb Nipple



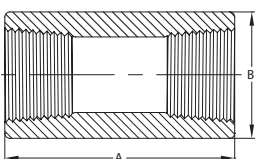
High Pressure ASME B16.11-2001 Nipple				
CODE	METRIC SIZE	A	W	APPROX KG/PC
NPT				
NP6N015	15	22	48	
NP6N020	20	27	52	
NP6N025	25	35	60	
NP6N032	32			
NP6N040	40	50	68	
NP6N050	50	62	71	



High Pressure 6000lb Threaded Coupling

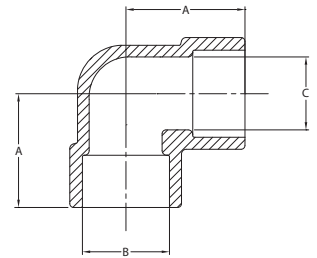


High Pressure ASME B16.11-2001 Threaded Coupling				
CODE	METRIC SIZE	W	D	APPROX KG/PC
NPT				
NP6CF008	8	35	25	0.13
NP6CF015	15	48	38	0.34
NP6CF020	20	51	44	0.50
NP6CF025	25	60	57	0.87
NP6CF032	32	67	64	1.09
NP6CF040	40	79	76	1.94
NP6CF050	50	86	92	2.87



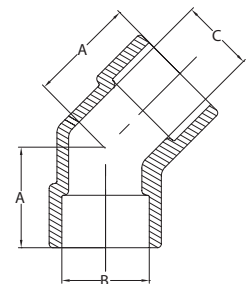
High Pressure 3000lb Socket Weld 90 Degree Elbow

High Pressure ASME B16.11-2001 Socket Weld 90 Degree Elbow					
CODE	METRIC SIZE	A	B	C	APPROX KG/PC
SW3EL090/008	8	20.5	14.6 14.2	10.0 8.5	0.08
SW3EL090/010	10	23.0	18.0 17.6	13.3 11.8	0.12
SW3EL090/015	15	25.0	22.0 21.8	16.6 15.0	0.22
SW3EL090/020	20	31.5	27.6 27.2	21.7 20.2	0.33
SW3EL090/025	25	35.0	34.3 33.9	27.4 25.9	0.53
SW3EL090/032	32	39.5	43.1 42.7	35.8 34.3	0.84
SW3EL090/040	40	44.5	49.2 48.8	41.6 40.1	1.08
SW3EL090/050	50	54.0	61.7 61.2	53.3 51.7	1.68
SW3EL090/065	65	57.0	74.4 73.9	64.2 61.2	3.20
SW3EL090/080	80	73.0	90.3 89.8	79.4 76.4	5.38

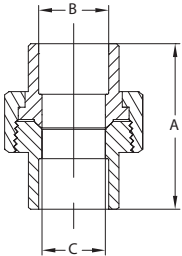


High Pressure 3000lb Socket Weld 45 Degree Elbow

High Pressure ASME B16.11-2001 Socket Weld 45 Degree Elbow					
CODE	METRIC SIZE	A	B	C	APPROX KG/PC
SW3EL120/008	8	20.5	14.6 14.2	10.0 8.5	0.14
SW3EL120/010	10	23.0	18.0 17.6	13.3 11.8	0.12
SW3EL120/015	15	25.0	22.0 21.8	16.6 15.0	0.20
SW3EL120/020	20	31.5	27.6 27.2	21.7 20.2	0.28
SW3EL120/025	25	35.0	34.3 33.9	27.4 25.9	0.42
SW3EL120/032	32	39.5	43.1 42.7	35.8 34.3	0.69
SW3EL120/040	40	44.5	49.2 48.8	41.6 40.1	0.80
SW3EL120/050	50	54.0	61.7 61.2	53.3 51.7	1.35

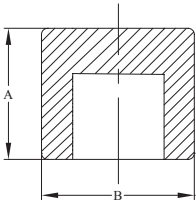


High Pressure 3000lb Socket Weld Union



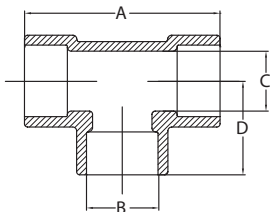
High Pressure ASME B16.11-2001 Socket Weld Union					
CODE	METRIC SIZE	A	B	C	APPROX KG/PC
SW3UN340/015	15	49.00	31.2	16.6 15.0	0.35
SW3UN340/020	20	56.70	37.1	21.7 20.2	0.49
SW3UN340/025	25	62.65	45.5	27.4 25.9	0.81
SW3UN340/032	32	71.50	54.9	35.8 34.3	1.10
SW3UN340/040	40	77.28	61.5	41.6 40.1	1.61
SW3UN340/050	50	86.50	75.2	53.3 51.7	2.16

High Pressure 3000lb Socket Weld Cap



High Pressure ASME B16.11-2001 Threaded Cap				
CODE	METRIC SIZE	A	B	APPROX KG/PC
NPT				
SW3CA300/015	15	32	28	0.11
SW3CA300/020	20	37	35	0.18
SW3CA300/025	25	41	44	0.37
SW3CA300/032	32	44	57	0.62
SW3CA300/040	40	44	64	0.72
SW3CA300/050	50	48	76	1.09

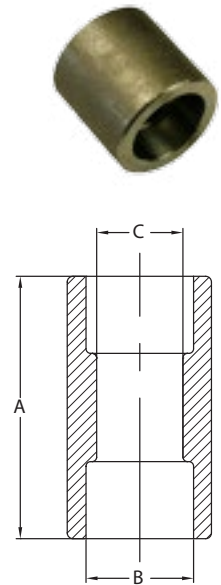
High Pressure 3000lb Socket Weld Equal Tee



High Pressure ASME B16.11-2001 Socket Weld Equal Tee						
CODE	METRIC SIZE	A	B	C	D	APPROX KG/PC
SW3TE130/008	8	41	14.6 14.2	10.0 8.5	20.5	0.09
SW3TE130/010	10	46	18.0 17.6	13.3 11.8	23.0	0.15
SW3TE130/015	15	50	22.0 21.8	16.6 15.0	25.0	0.29
SW3TE130/020	20	63	27.6 27.2	21.7 20.2	31.5	0.42
SW3TE130/025	25	70	34.3 33.9	27.4 25.9	35.0	0.65
SW3TE130/032	32	79	43.1 42.7	35.8 34.3	39.5	1.04
SW3TE130/040	40	89	49.2 48.8	41.6 40.1	44.5	1.35
SW3TE130/050	50	108	61.7 61.2	53.3 51.7	54.0	2.04

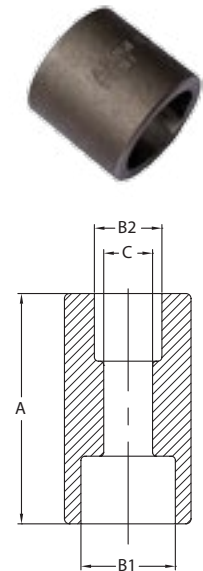
High Pressure 3000lb Socket Weld Coupling

High Pressure ASME B16.11-2001 Socket Weld Coupling					
CODE	METRIC SIZE	A	B	C	APPROX KG/PC
SW3CF270/008	8	25.5	14.6 14.2	10.0 8.5	0.05
SW3CF270/010	10	25.5	18.0 17.6	13.3 11.8	0.07
SW3CF270/015	15	28.5	22.0 21.8	16.6 15.0	0.13
SW3CF270/020	20	34.5	27.6 27.2	21.7 20.2	0.17
SW3CF270/025	25	37.5	34.3 33.9	27.4 25.9	0.29
SW3CF270/032	32	37.5	43.1 42.7	35.8 34.3	0.45
SW3CF270/040	40	37.5	49.2 48.8	41.6 40.1	0.59
SW3CF270/050	50	51.0	61.7 61.2	53.3 51.7	0.86
SW3CF270/065	65	51.0	74.4 73.9	64.2 61.2	1.40
SW3CF270/080	80	51.0	90.3 89.8	79.4 76.4	1.78

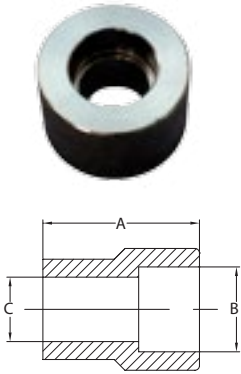


High Pressure 3000lb Socket Weld Reducing Coupling

High Pressure ASME B16.11-2001 Socket Weld Reducing Coupling						
CODE	METRIC SIZE	A	B1	B2	C	APPROX KG/PC
SW3CR/015X010	15 X 10					
SW3CR/020X015	20 X 15	34.5	27.4	21.8	14.1	0.20
SW3CR/025X015	25 X 15	37.5	34.2	21.8	14.1	0.38
SW3CR/025X020	25 X 20	37.5	34.2	27.4	18.9	0.34
SW3CR/032X015	32 X 15					
SW3CR/032X020	32 X 20					
SW3CR/032X025	32 X 25	37.5	42.9	34.2	24.7	0.52
SW3CR/040X015	40 X 15					
SW3CR/040X020	40 X 20					
SW3CR/040X025	40 X 25	37.5	48.8	34.2	24.7	0.78
SW3CR/040X032	40 X 32	37.5	48.8	42.9	32.4	0.68
SW3CR/050X015	50 X 15					
SW3CR/050X020	50 X 20					
SW3CR/050X025	50 X 25	51.0	61.1	34.2	24.7	1.14
SW3CR/050X032	50 X 32					
SW3CR/050X040	50 X 40	51.0	61.1	48.8	38.3	0.99

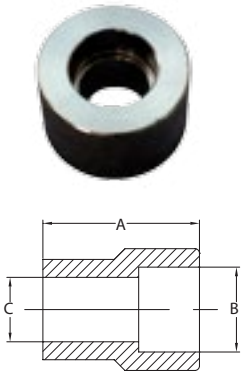


High Pressure 3000lb Reducing Insert



High Pressure ASME B16.11-2001 Reducer Inserts					
CODE	METRIC SIZE	A	B	C	APPROX KG/PC
SW3IN015008	15 X 8				
SW3IN020015	20 X 15	32.0	22.0	16	0.10
SW3IN025008	25 X 8				
SW3IN025010	25 X 10				
SW3IN025015	25 X 15	26.0	22.0	16	0.15
SW3IN025020	25 X 20	37.0	27.0	21	0.16
SW3IN032015	32 X 15				
SW3IN032020	32 X 20	31.0	27.0	21	0.17
SW3IN032025	32 X 25	38.0	34.0	27	0.24
SW3IN040015	40 X 15				
SW3IN040020	40 X 20				
SW3IN040025	40 X 25	31.0	34.0	27	0.29
SW3IN040032	40 X 32	41.0	43.0	25	0.31
SW3IN050015	50 X 15				
SW3IN050020	50 X 20				
SW3IN050025	50 X 25	35.0	34.0	27	0.34
SW3IN050032	50 X 32	34.0	43.0	35	0.35
SW3IN050040	50 X 40	45.0	49.0	41	0.36

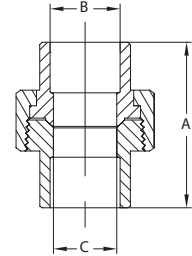
High Pressure 6000lb Reducing Insert



High Pressure ASME B16.11-2001 Socket Weld Reducing Coupling						
CODE	METRIC SIZE	A	B	C	D	APPROX KG/PC
SW6E015	15	19.0	21.80	5.97 5.18	11.80	0.40
SW6E020	20	22.5	27.20	6.96 6.04	15.60	0.73
SW6E025	25	27.0	33.90	7.92 6.93	20.70	1.17
SW6E040	40	38.0	48.80	8.92 7.80	34.00	2.79

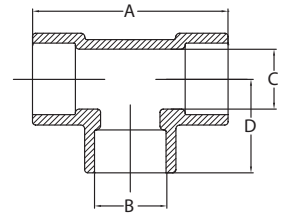
High Pressure 6000lb Socket Weld Union

High Pressure ASME B16.11-2001 Socket Weld Union					
CODE	METRIC SIZE	A	B	C	APPROX KG/PC
SW6UN340/040	40				
SW6UN340/050	50				



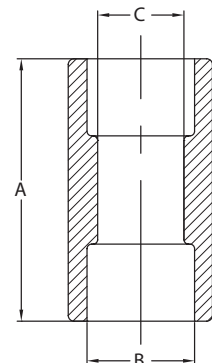
High Pressure 6000lb Socket Weld Equal Tee

High Pressure ASME B16.11-2001 Socket Weld Equal Tee						
CODE	METRIC SIZE	A	B	C	D	APPROX KG/PC
SW6TE130/015	15	19	21.80	11.80	5.97 5.18	0.56
SW6TE130/020	20	22.5	27.20	15.60	6.96 6.04	0.94
SW6TE130/025	25	27	33.90	20.70	7.92 6.93	1.49
SW6TE130/040	40	38	48.80	34.00	8.92 7.80	3.37
SW6TE130/050	50	41	61.20	42.90	10.92 9.50	3.95

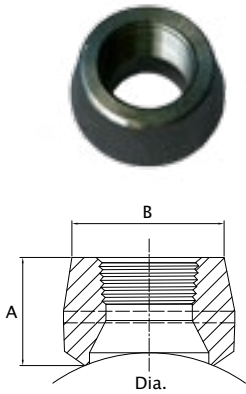


High Pressure 6000lb Socket Weld Coupling

High Pressure ASME B16.11-2001 Socket Weld Coupling					
CODE	METRIC SIZE	A	B	C	APPROX KG/PC
SW6CF270/015	15	28.5	21.8	11.80	0.20
SW6CF270/020	20	34.5	27.2	15.60	0.27
SW6CF270/025	25	37.5	33.9	20.70	0.44
SW6CF270/032	32	37.5	42.7	29.50	0.60
SW6CF270/040	40	37.5	48.8	34.00	1.11
SW6CF270/050	50	51.0	61.2	42.90	1.62

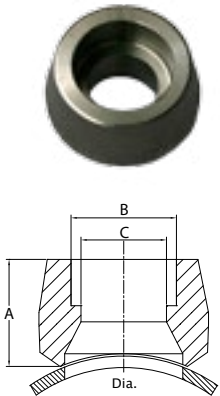


High Pressure 3000LB Branch Outlet with Threaded End



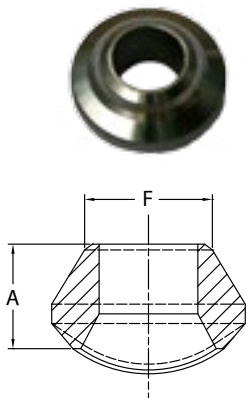
High Pressure ASME B31.1 & MSS-SP97 Branch Outlet with Threaded End				
CODE		METRIC SIZE	A	B
NPT	BSPT			
TOLN008	TOLB008	8	19.0	22.0
	TOLB010	10	21.0	25.9
TOLN015	TOLB015	15	25.0	31.4
TOLN020	TOLB020	20	27.0	37.1
TOLN025	TOLB025	25	33.0	45.5
TOLN032	TOLB032	32	33.0	57.0
TOLN040	TOLB040	40	35.0	64.0
TOLN050	TOLB050	50	38.0	76.0

High Pressure 3000LB Branch Outlet's Socket Weld End



High Pressure ASME B31.1 & MSS-SP97 Branch Outlet Socket Weld End			
CODE	METRIC SIZE	A	B
SOL015	15	25.7	31.4
SOL020	20	28.7	37.1
SOL025	25	35.1	45.5
SOL032	32	35.1	57.0
SOL040	40	36.6	64.0
SOL050	50	39.7	76.0

High Pressure 3000LB Branch Outlet's Butt Weld End



High Pressure ASME B31.1 & MSS-SP97 Branch Outlet Butt Weld End			
CODE	METRIC SIZE	A	B
WOL015	15	19.0	21.3
WOL020	20	22.0	26.7
WOL025	25	27.0	33.4
WOL032	32	32.0	42.2
WOL040	40	33.0	48.3
WOL050	50	38.0	60.3
WOL065	65	41.0	73.0
WOL080	80	44.0	88.9
WOL100	100	51.00	114.30