






Forged Steel Fittings CLASS 3000 THREADED



	NPS DN		1/8 6	1/4 8	3/8 10	1/2 15	3/4 20	1 25	1 1/4 32	1 1/2 40	2 50	2 1/2 65	3 80	4 100	
90° ELBOWS															
	A	in	0.97*	0.97	1.12	1.31	1.50	1.75	2.00	2.38	2.50	3.25	3.75	4.50	
	A	mm	25	25	28	33	38	44	51	60	64	83	95	114	
	H	in	1.00*	1.00	1.31	1.50	1.81	2.19	2.44	2.97	3.31	4.00	4.75	6.00	
	H	mm	25	25	33	38	46	56	62	75	84	102	121	152	
	App. Wt./100 pcs.	lb		38	38	63	88	138	225	260	490	519	1050	1444	3038
		kg		17	17	29	40	63	102	118	223	236	477	656	1381
45° ELBOWS															
	C	in	0.75*	0.75	0.88	1.00	1.12	1.31	1.38	1.69	1.72	2.06	2.50	3.12	
	C	mm	19	19	22	25	28	33	35	43	44	52	64	79	
	H	in	1.00*	1.00	1.31	1.50	1.81	2.19	2.44	2.97	3.31	4.00	4.75	6.00	
	H	mm	25	25	33	38	46	56	62	75	84	102	121	152	
	App. Wt./100 pcs.	lb		25	25	52	68	119	188	213	400	440	738	1178	1906
		kg		12	12	24	31	54	86	97	182	200	336	536	867
TEES															
	A	in	0.97*	0.97	1.12	1.31	1.50	1.75	2.00	2.38	2.50	3.25	3.75	4.50	
	A	mm	25	25	28	33	38	44	51	60	64	83	95	114	
	H	in	1.00*	1.00	1.31	1.50	1.81	2.19	2.44	2.97	3.31	4.00	4.75	6.00	
	H	mm	25	25	33	38	46	56	62	75	84	102	121	152	
	App. Wt./100 pcs.	lb		38	38	81	119	188	310	350	640	686	1313	2038	3950
		kg		17	17	37	54	86	141	159	291	312	587	927	1796
CROSSES															
	A	in	0.97*	0.97	1.12	1.31	1.50	1.75	2.00	2.38	2.50	3.25	3.75	4.50	
	A	mm	25	25	28	33	38	44	51	60	64	83	95	114	
	H	in	1.00*	1.00	1.31	1.50	1.81	2.19	2.44	2.97	3.31	4.00	4.75	6.00	
	H	mm	25	25	33	38	46	56	62	75	84	102	121	152	
	App. Wt./100 pcs.	lb		38	38	100	150	250	356	413	650	813	1675	1975	3200
		kg		17	17	46	69	114	162	188	296	370	762	898	1455
STREET ELBOWS															
	A	in	0.97	0.97	1.12	1.31	1.50	1.75	2.00	2.38	2.50	3.25	3.75	4.50	
	A	mm	25	25	28	33	38	44	51	60	64	83	95	114	
	G	in	1.25	1.25	1.50	1.69	1.94	2.31	2.69	2.81	3.38	-	-	-	
	G	mm	32	32	38	43	48	59	68	71	86	-	-	-	
	H	in	1.00	1.00	1.31	1.50	1.81	2.19	2.44	2.97	3.31	4.00	4.75	6.00	
	H	mm	25	25	33	38	46	56	62	75	84	102	121	152	
	App. Wt./100 pcs.	lb		25	25	38	55	88	144	250	425	519	-	-	-
		kg		12	12	17	25	40	66	114	194	236	-	-	-

*Larger than ASME B16.11 dimension.

FORGED STEEL FITTINGS CLASS 3000 THREADED








			NPS	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4		
			DN	6	8	10	15	20	25	32	40	50	65	80	100		
LATERALS																	
	A	in	-	1.88	2.12	2.56	3.00	3.50	3.94	4.75	-	-	-	-	-	-	
	A	mm	-	48	54	65	76	89	100	121	-	-	-	-	-	-	
	H	in	-	1.06	1.31	1.50	1.81	2.19	2.44	2.97	-	-	-	-	-	-	
	H	mm	-	27	33	38	46	56	62	75	-	-	-	-	-	-	
	K	in	-	0.81	0.88	1.00	1.12	1.31	1.44	1.68	-	-	-	-	-	-	
	K	mm	-	21	22	25	28	33	37	43	-	-	-	-	-	-	
App. Wt./100 pcs.			lb	-	-	-	175	275	463	550	1081	-	-	-	-	-	
			kg	-	-	-	80	125	211	250	492	-	-	-	-	-	
COUPLINGS																	
	D	in	0.75*	0.75	0.88	1.12	1.38	1.75	2.25	2.50	3.00	3.62	4.25	5.50			
	D	mm	19	19	22	28	35	44	57	64	76	92	108	140			
	W	in	1.25	1.38	1.50	1.88	2.00	2.38	2.62	3.12	3.38	3.62	4.25	4.75			
	W	mm	32	35	38	48	51	60	67	79	86	92	108	121			
	App. Wt./100 pcs.			lb	12	10	13	29	42	84	156	211	300	460	650	1225	
				kg	6	5	6	13	19	38	71	96	136	209	296	557	
HALF COUPLINGS																	
	D	in	0.75*	0.75	0.88	1.12	1.38	1.75	2.25	2.50	3.00	3.62	4.25	5.50			
	D	mm	19	19	22	28	35	44	57	64	76	92	108	140			
	W/2	in	0.62	0.69	0.75	0.94	1.00	1.19	1.31	1.56	1.69	1.81	2.13	2.38			
	W/2	mm	16	18	19	24	25	30	33	40	43	46	54	60			
	App. Wt./100 pcs.			lb	5	4	6	13	18	38	72	99	139	215	306	580	
				kg	2.3	2	3	6	8	17	33	45	63	98	139	264	
REDUCING COUPLINGS																	
	D	in	0.75*	0.75	0.88	1.12	1.38	1.75	2.25	2.50	3.00	3.62	4.25	5.50			
	D	mm	19	19	22	28	35	44	57	64	76	92	108	140			
	W	in	-	1.38	1.50	1.88	2.00	2.38	2.62	3.12	3.38	3.62	4.25	4.75			
	W	mm	-	35	38	48	51	60	67	79	86	92	108	121			
	App. Wt./100 pcs.			NPS	-	1/8	1/8	1/8	1/8	1/4	1/4	1/4	3/4	3/4	1 1/2		
				DN	-	6	6	6	6	8	8	8	20	20	40		
			lb	-	10	13	29	42	84	156	211	300	460	650	1225		
			kg	-	5	6	13	19	38	71	96	136	209	296	557		
PIPE CAPS																	
	D	in	0.75*	0.75	0.88	1.12	1.38	1.75	2.25	2.50	3.00	3.62	4.25	5.50			
	D	mm	19	19	22	28	35	44	57	64	76	92	108	140			
	P	in	0.75	1.00	1.00	1.25	1.44	1.62	1.75	1.75	1.88	2.38	2.56	2.69			
	P	mm	19	25	25	32	37	41	44	44	48	60	65	68			
	App. Wt./100 pcs.			lb	6	9	13	25	41	75	125	150	260	500	850	1300	
				kg	3	4	6	14	19	34	57	68	118	228	387	591	

*Larger than ASME B16.11 dimension.

Forged Steel Fittings CLASS 6000 THREADED



		NPS	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
		DN	6	8	10	15	20	25	32	40	50	65	80	100
90° ELBOWS														
	A	in	0.97	1.12	1.31	1.50	1.75	2.00	2.38	2.50	3.25	3.75	4.19	4.50
	A	mm	25	28	33	38	44	51	60	64	83	95	106	114
	H	in	1.00	1.31	1.50	1.81	2.19	2.44	2.97	3.31	4.00	4.75	5.75	6.00
	H	mm	25	33	38	46	56	62	75	84	102	121	146	152
		lb	25	63	106	163	250	325	650	725	1325	2088	3456	—
		kg	11	29	48	74	114	148	296	330	602	949	1771	—
45° ELBOWS														
	C	in	0.75	0.88	1.00	1.12	1.31	1.38	1.69	1.72	2.06	2.50	3.12	3.12
	C	mm	19	22	25	28	33	35	43	44	52	64	79	79
	H	in	1.00	1.31	1.50	1.81	2.19	2.44	2.97	3.31	4.00	4.75	5.75	6.00
	H	mm	25	33	38	46	56	62	75	84	102	121	146	152
		lb	25	59	88	144	219	269	469	575	950	1500	3056	—
		kg	11	27	40	66	100	123	214	262	432	682	1389	—
TEES														
	A	in	0.97	1.12	1.31	1.50	1.75	2.00	2.38	2.50	3.25	3.75	4.19	4.50
	A	mm	25	28	33	38	44	51	60	64	83	95	106	114
	H	in	1.00	1.31	1.50	1.81	2.19	2.44	2.97	3.31	4.00	4.75	5.75	6.00
	H	mm	25	33	38	46	56	62	75	84	102	121	146	152
		lb	50	100	138	213	363	463	763	963	1888	2806	4563	—
		kg	23	46	63	97	165	211	347	438	858	1276	2074	—
CROSSES														
	A	in	0.97	1.12	1.31	1.50	1.75	2.00	2.38	2.50	3.25	3.75	4.19	—
	A	mm	25	28	33	38	44	51	60	64	83	95	106	—
	H	in	1.00	1.31	1.50	1.81	2.19	2.44	2.97	3.31	4.00	4.75	5.75	—
	H	mm	25	33	38	46	56	62	75	84	102	121	146	—
		lb	56	119	150	275	431	563	1075	1150	2219	2750	5400	—
		kg	26	54	68	125	196	256	489	523	1009	1250	2955	—
STREET ELBOWS														
	A	in	—	1.00	1.12	1.38	1.75	2.00	2.12	2.50	—	—	—	—
	A	mm	—	25	28	35	44	51	54	64	—	—	—	—
	G	in	—	1.50	1.63	1.88	2.25	2.62	2.81	3.31	—	—	—	—
	G	mm	—	38	41	48	57	67	71	84	—	—	—	—
	H	in	—	1.25	1.50	1.75	2.00	2.44	2.75	3.31	—	—	—	—
	H	mm	—	32	38	44	51	62	70	84	—	—	—	—
	lb	—	37	45	100	162	250	368	644	—	—	—	—	
	kg	—	17	21	46	74	114	168	293	—	—	—	—	

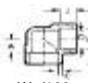

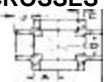

FORGED STEEL FITTINGS CLASS 6000 THREADED



		NPS	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
		DN	6	8	10	15	20	25	32	40	50	65	80	100
LATERALS														
<p>App. Wt./100 pcs.</p>	A	in	—	—	2.56	3.00	3.56	4.00	4.75	—	—	—	—	—
	A	mm	—	—	65	76	90	102	121	—	—	—	—	—
	H	in	—	—	1.50	1.81	2.19	2.44	2.88	—	—	—	—	—
	H	mm	—	—	38	46	56	62	73	—	—	—	—	—
	K	in	—	—	1.00	1.25	1.38	1.50	1.75	—	—	—	—	—
	K	mm	—	—	25	32	35	38	44	—	—	—	—	—
	lb	—	—	237	325	548	732	1232	—	—	—	—	—	—
	kg	—	—	108	148	249	333	560	—	—	—	—	—	—
COUPLINGS														
<p>App. Wt./100 pcs.</p>	D	in	0.88	1.00	1.25	1.50	1.75	2.25	2.50	3.00	3.62	4.25	5.00	6.25
	D	mm	22	25	32	38	44	57	64	76	92	108	127	159
	W	in	1.25	1.38	1.50	1.88	2.00	2.38	2.62	3.12	3.38	3.62	4.25	4.75
	W	mm	32	35	38	48	51	60	67	79	86	92	108	121
		lb	18	23	40	69	95	192	230	375	537	890	1345	2425
		kg	8	11	18	32	44	88	105	171	244	405	612	1103
HALF COUPLINGS														
<p>App. Wt./100 pcs.</p>	D	in	0.88	1.00	1.25	1.50	1.75	2.25	2.50	3.00	3.62	4.25	5.00	6.25
	D	mm	22	25	32	38	44	57	64	76	92	108	127	159
	W/2	in	0.62	0.69	0.75	0.94	1.00	1.19	1.31	1.56	1.69	1.81	2.13	2.38
	W/2	mm	16	18	19	24	25	30	33	40	43	46	54	60
		lb	8	10	18	33	45	86	110	180	260	430	650	1180
		kg	4	5	8	15	21	39	50	82	119	196	296	537
PIPE CAPS														
<p>App. Wt./100 pcs.</p>	D	in	0.88	1.00	1.25	1.50	1.75	2.25	2.50	3.00	3.62	4.25	5.00	6.25
	D	mm	22	25	32	38	44	57	64	76	92	108	127	159
	P	in	—	1.06	1.06	1.31	1.50	1.69	1.81	1.88	2.00	2.50	2.69	2.97
	P	mm	—	27	27	33	38	43	46	48	51	64	68	75
		lb	15	18	25	56	75	140	220	290	520	660	960	1700
		kg	7	8	12	26	34	64	100	132	237	300	437	773
REDUCING COUPLINGS														
<p>App. Wt./100 pcs.</p>	D	in	—	1.00	1.25	1.50	1.75	2.25	2.50	3.00	3.62	4.25	5.00	6.25
	D	mm	—	25	32	38	44	57	64	76	92	108	127	159
	W	in	—	1.38	1.50	1.88	2.00	2.38	2.62	3.12	3.38	3.62	4.25	4.75
	W	mm	—	35	38	48	51	60	67	79	86	92	108	121
		NPS	—	1/8	1/8	1/8	1/4	1/4	1/2	3/4	3/4	1 1/4	1 1/2	2
		DN	—	6	6	6	8	8	15	20	20	32	40	50
		lb	—	23	40	69	95	192	230	375	537	890	1345	2425
		kg	—	11	18	32	44	88	105	171	244	405	612	1103

Forged Steel Fittings CLASS 3000 SOCKET-WELDING

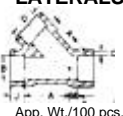
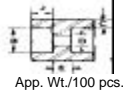
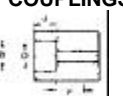
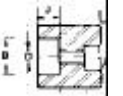
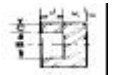


		NPS	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
		DN	6	8	10	15	20	25	32	40	50	65	80	100
COMMON DIMENSIONS		in	0.42	0.555	0.69	0.855	1.065	1.330	1.675	1.915	2.406	2.906	3.535	4.545
	B (Socket Dia.)		.440	.575	.710	.875	1.085	1.350	1.695	1.935	2.426	2.931	3.560	4.570
		mm	10.67	14.10	17.53	21.72	27.05	33.78	42.55	48.64	61.11	73.81	89.79	115.44
	C (Min.)	in	0.13	0.13	0.14	0.16	0.17	0.20	0.21	0.22	0.24	0.30	0.33	0.37
		mm	3.30	3.30	3.56	4.06	4.32	5.08	5.33	5.59	6.10	7.62	8.38	9.40
	D (Bore Dia.)	in	0.239	0.334	0.463	0.592	0.794	1.019	1.350	1.580	2.037	2.409	3.008	3.966
		mm	.299	.394	.523	.562	.854	1.079	1.410	1.640	2.097	2.529	3.128	4.086
	J (Min. Socket Depth)	in	7.59	10.00	13.28	16.56	21.69	27.40	35.81	41.66	53.26	64.24	79.45	103.78
		mm	0.38	0.38	0.38	0.38	0.50	0.50	0.50	0.50	0.62	0.62	0.62	0.75
			mm	9.65	9.65	9.65	9.65	12.70	12.70	12.70	12.70	15.75	15.75	15.75
90° ELBOWS														
	A (Nominal)	in	0.44	0.44	0.53	0.62	0.75	0.88	1.06	1.25	1.50	1.62	2.25	2.62
		mm	11	11	13	16	19	22	27	32	38	41	57	67
App. Wt./100 pcs.		lb	13	13	25	50	69	106	163	213	290	638	1088	2369
		kg	6	6	12	23	32	48	74	97	132	290	495	1077
45° ELBOWS														
	A (Nominal)	in	0.31	0.31	0.31	0.44	0.50	0.56	0.69	0.81	1.00	1.12	1.25	1.62
		mm	8	8	8	11	13	14	18	21	25	28	32	41
App. Wt./100 pcs.		in	13	13	19	38	50	88	125	163	269	675	1050	1819
		mm	6	6	9	17	23	40	57	74	123	307	478	827
CROSSES														
	A	in	0.44	0.44	0.53	0.62	0.75	0.88	1.06	1.25	1.50	1.62	2.25	2.62
		mm	11	11	13	16	19	22	27	32	38	41	57	67
App. Wt./100 pcs.		lb	25	25	34	69	88	144	213	263	444	888	1369	2844
		kg	12	12	16	32	44	66	97	120	202	404	623	1293
TEE														
	A	in	0.44	0.44	0.53	0.62	0.75	0.88	1.06	1.25	1.50	1.62	2.25	2.62
		mm	11	11	13	16	19	22	27	32	38	41	57	67
App. Wt./100 pcs.		lb	25	31	31	81	113	156	244	325	550	1581	2019	3150
		kg	12	14	14	37	52	71	111	148	250	719	918	1432

When the pipe is seated against the bottom of the socket prior to welding, to prevent possible cracking of the fillet welds, it is recommended that the pipe be withdrawn approximately 1/16 in. / 1.6 mm away from contact with the bottom of the socket before starting the weld.




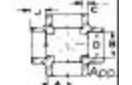
FORGED STEEL FITTINGS CLASS 3000 SOCKET- WELDING



		NPS	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
		DN	6	8	10	15	20	25	32	40	50	65	80	100
COMMON DIMENSIONS	B (Socket Dia.)	in	0.42	0.555	0.69	0.855	1.065	1.330	1.675	1.915	2.406	2.906	3.535	4.545
		mm	.440	.575	.710	.875	1.085	1.35	1.695	1.935	2.426	2.931	3.560	4.570
	C (Min.)	in	10.6	14.1	17.53	21.72	27.05	33.78	42.55	48.64	61.11	73.81	89.79	115.44
		mm	11	14.6	18.03	22.23	27.56	34.29	43.05	49.15	61.62	74.45	90.42	116.08
	D (Bore Dia.)	in	0.13	0.13	0.14	0.16	0.17	0.20	0.21	0.22	0.24	0.30	0.33	0.37
		mm	3.30	3.30	3.56	4.06	4.32	5.08	5.33	5.59	6.10	7.62	8.38	9.40
	J (Min. Socket Depth)	in	0.239	0.334	0.463	0.592	0.794	1.019	1.350	1.580	2.037	2.409	3.008	3.966
		mm	.299	.394	.523	.652	.854	1.079	1.410	1.640	2.097	2.529	3.128	4.086
		in	6.07	8.48	11.76	15.04	21.07	25.88	34.29	40.18	51.74	61.19	76.40	100.74
		mm	7.59	10.00	13.28	16.56	21.69	27.4	35.81	41.66	53.26	64.24	79.45	103.78
	in	0.38	0.38	0.38	0.38	0.50	0.50	0.50	0.50	0.62	0.62	0.62	0.75	
	mm	9.65	9.65	9.65	9.65	12.70	12.70	12.70	12.70	15.75	15.75	15.75	19.05	
LATERALS 	A (Nominal)	in	—	—	—	1.63	2.00	2.38	2.81	3.19	3.88	—	—	—
		mm	—	—	—	41	51	60	71	81	99	—	—	—
	M	in	—	—	—	0.38	0.44	.50	0.63	0.69	0.81	—	—	—
		mm	—	—	—	10	11	13	16	18	21	—	—	—
	App. Wt./100 pcs.	lb	—	—	—	100	175	238	375	500	775	—	—	—
		kg	—	—	—	46	80	109	171	228	353	—	—	—
COUPLINGS 	E	in	0.25	0.25	0.25	0.38	0.38	0.50	0.50	0.50	0.75	0.75	0.75	0.75
		mm	6	6	6	10	10	13	13	13	19	19	19	19
	App. Wt./100 pcs.	lb	10	12	20	23	39	68	84	93	161	237	313	507
		kg	5	6	9	11	18	31	38	43	74	108	143	231
	HALF COUPLINGS 	F	in	0.62	0.62	0.69	0.88	0.94	1.12	1.19	1.25	1.62	1.69	1.75
mm			16	16	18	22	24	28	30	32	41	43	45	48
App. Wt./100 pcs.		lb	11	14	24	31	47	84	112	132	218	341	486	749
		kg	5	7	11	14	22	38	51	60	99	155	221	341
REDUCING COUPLINGS 		E	in	—	0.25	0.25	0.38	0.38	0.50	0.50	0.50	0.75	0.75	0.75
	mm		—	6	6	10	10	13	13	13	19	19	19	19
	App. Wt./100 pcs.	NPS	—	1/8	1/8	1/8	1/8	1/8	1/4	1/4	1/2	1/2	1 1/2	2
		DN	—	6	6	6	6	6	8	8	15	15	40	50
		lb	—	12	20	23	39	68	84	93	161	237	313	507
	kg	—	6	10	11	18	31	38	43	74	108	143	231	
PIPE CAPS 	K Min.	in	0.19	0.19	0.19	0.25	0.25	0.38	0.38	0.44	0.50	0.62	0.75	0.88
		mm	5	5	5	6	6	10	10	11	13	16	19	22
	App. Wt./100 pcs.	lb	6	9	17	22	35	60	93	115	192	280	475	844
		kg	3	4	8	10	16	28	43	53	88	128	216	384

FORGED STEEL FITTINGS CLASS 600 SOCKET-WELDING

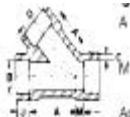
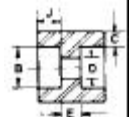
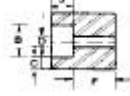
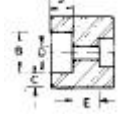
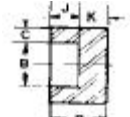


NPS		1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	
DN		6	8	10	15	20	25	32	40	50	65	80	100	
COMMON DIMENSIONS														
B (Socket Dia.)	in	0.42	0.555	0.69	0.855	1.065	1.330	1.675	1.915	2.406	2.906	3.535	4.545	
	mm	.440	.575	.710	.875	1.085	1.350	1.695	1.935	2.426	2.931	3.560	4.570	
C (Min.)	in	10.67	14.10	17.53	21.72	27.05	33.78	42.55	48.64	61.11	73.81	89.79	115.44	
	mm	11.18	14.61	18.03	22.23	27.56	34.29	43.05	49.15	61.62	74.45	90.42	116.08	
D (Bore Dia.)	in	0.14	0.16	0.17	0.20	0.24	0.27	0.27	0.31	0.37	0.41	0.48	0.58	
	mm	3.56	4.06	4.32	5.08	6.10	6.86	6.86	7.87	9.40	10.41	12.19	14.73	
J (Min. Socket Depth)	in	0.126	.220	0.329	0.434	0.582	0.785	1.130	1.308	1.657	2.056	2.564	3.378	
	mm	.189	.280	.389	.494	.642	.845	1.190	1.368	1.717	2.185	2.684	3.498	
	in	3.20	5.59	8.36	11.03	14.78	19.94	28.70	33.22	42.01	52.45	65.13	85.80	
	mm	4.80	7.11	9.88	12.55	16.31	21.46	30.23	34.77	43.61	55.50	68.17	88.85	
	in	0.38	0.38	0.38	0.38	0.50	0.50	0.50	0.50	0.62	0.62	0.62	0.75	
	mm	9.65	9.65	9.65	9.65	12.70	12.70	12.70	12.70	15.75	15.75	15.75	19.05	
90° ELBOWS														
	A (Nominal)	in	0.44	0.53	0.62	0.75	0.88	1.06	1.25	1.50	1.62	2.25	2.50	2.62
	mm	11	13	16	19	22	27	32	38	41	57	64	67	
App. Wt./100 pcs.	lb	-	-	-	88	144	250	325	531	638	1200	1938	3638	
	kg	-	-	-	40	66	114	148	242	290	546	881	1654	
45° ELBOWS														
	A (Nominal)	in	0.31	0.31	0.44	0.50	0.56	0.69	0.81	1.00	1.12	1.25	1.38	1.58
	mm	8	8	11	13	14	18	21	25	28	32	35	40	
App. Wt./100 pcs.	lb	-	-	-	69	131	200	263	475	588	713	1231	2700	
	kg	-	-	-	32	60	91	120	216	268	324	560	1228	
TEE														
	A	in	-	-	-	0.75	0.88	1.06	1.25	1.50	1.62	2.25	2.50	2.62
	mm	-	-	-	19	22	27	32	38	41	57	64	67	
App. Wt./100 pcs.	lb	-	-	-	106	206	338	431	781	869	1663	2381	4532	
	kg	-	-	-	49	94	154	196	355	395	756	1083	2060	
CROSSES														
	A	in	-	-	-	0.75	0.88	1.06	1.25	1.50	1.62	2.25	2.50	2.62
	mm	-	-	-	19	22	27	32	38	41	57	64	67	
App. Wt./100 pcs.	lb	-	-	-	125	250	400	513	900	950	1988	2950	4150	
	kg	-	-	-	57	114	182	234	409	432	904	1341	1887	

When the pipe is seated against the bottom of the socket prior to welding, to prevent possible cracking of the fillet welds, it is recommended that the pipe be withdrawn approximately 1/16 in. / 1.6 mm away from contact with the bottom of the socket before starting the weld.

Forged Steel Fittings CLASS 6000 SOCKET-WELDING



		NPS	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	
		DN	15	20	25	32	40	50	65	80	100	
COMMON DIMENSIONS	B (Socket Dia.)	in	0.855	1.065	1.330	1.675	1.915	2.406	2.906	3.535	4.545	
			.875	1.085	1.350	1.695	1.935	2.426	2.931	3.560	4.570	
		mm	21.72	27.05	33.78	42.55	48.64	61.11	73.81	89.79	115.44	
	C (Min.)	in	0.20	0.24	0.27	0.27	0.31	0.37	0.41	0.48	0.58	
		mm	5.08	6.10	6.86	6.86	7.87	9.40	10.41	12.19	14.73	
	D (Bore Dia.)	in	.434	.582	.785	1.13	1.308	1.657	2.065	2.564	3.378	
			.494	.642	.845	1.190	1.368	1.717	2.185	2.684	3.498	
		mm	11.02	14.78	19.94	28.70	33.22	42.09	52.45	65.13	85.80	
	J (Min. Socket Depth)	in	0.38	0.50	0.50	0.50	0.50	0.62	0.62	0.62	0.75	
		mm	9.65	12.70	12.70	12.70	12.70	15.75	15.75	15.75	19.05	
	LATERALS											
		A	in	2.00	2.38	2.81	3.19	3.88	-	-	-	-
A		mm	51	60	71	81	99	-	-	-	-	
M		in	0.44	0.50	0.63	0.69	0.81	-	-	-	-	
M		mm	11	13	16	18	21	-	-	-	-	
App. Wt./100 pcs.		lb	250	325	538	675	1281	-	-	-	-	
		kg	114	148	245	307	583	-	-	-	-	
COUPLINGS												
	E	in	0.38	0.38	0.50	0.50	0.50	0.75	0.75	0.75	0.75	
		mm	10	10	13	13	13	19	19	19	19	
App. Wt./100 pcs.		lb	46	74	136	144	222	415	533	675	1181	
		kg	21	34	62	66	101	189	243	307	537	
HALF COUPLINGS												
	F	in	0.88	0.94	1.12	1.19	1.25	1.62	1.69	1.75	1.88	
		mm	22	24	28	30	32	41	43	45	48	
App. Wt./100 pcs.		lb	54	80	136	171	262	477	652	872	1429	
		kg	26	37	62	78	119	217	297	394	650	
REDUCING COUPLINGS												
	E	in	-	0.38	0.50	0.50	0.50	0.75	0.75	0.75	0.75	
		mm	-	10	13	13	13	19	19	19	19	
		NPS	-	3/8	3/8	1/2	1/2	3/4	1 1/4	1 1/2	2	
		DN	-	10	10	15	15	20	32	40	50	
App. Wt./100 pcs.		lb	-	74	136	144	222	415	533	695	1181	
		kg	-	34	62	66	101	189	243	316	537	
PIPE CAPS												
	K (Min.)	in	0.31	0.31	0.44	0.44	0.50	0.62	0.75	0.88	1.12	
		mm	8	8	11	11	13	16	19	22	28	
App. Wt./100 pcs.		lb	41	57	117	142	217	366	494	766	1453	
		kg	19	26	54	65	99	167	225	348	661	

HIGH PRESSURE PLUGS AND BUSHINGS

Forged Steel Fittings

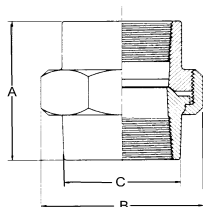


		NPS	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	
		DN	6	8	10	15	20	25	32	40	50	65	80	100	
PLUGS															
SQUARE HEAD															
<p>App. Wt./100 pcs.</p>	A	in	0.38	0.44	0.50	0.56	0.62	0.75	0.81	0.81	0.88	1.06	1.12	1.25	
	A	mm	10	11	13	14	16	19	21	21	22	27	28	32	
	B	mm	0.25	0.25	0.31	0.38	0.44	0.50	0.56	0.62	0.69	0.75	0.81	1.00	
	B	mm	6	6	8	10	11	13	14	16	18	19	21	25	
	C	in	0.28	0.38	0.44	0.56	0.62	0.81	0.94	1.12	1.31	1.50	1.69	2.50	
	C	mm	7	10	11	14	16	21	24	28	33	38	43	64	
		lb	2	2	5	10	18	35	59	85	140	225	287	719	
		kg	1	1	3	5	8	16	27	39	64	103	131	327	
	HEX HEAD (Across Flats)														
	<p>App. Wt./100 pcs.</p>		in	0.44	0.62	0.69	0.88	1.06	1.38	1.75	2.00	2.50	3.00	3.50	4.62
		m	11	16	18	22	27	35	45	51	64	76	89	117	
A		in	0.38	0.44	0.50	0.56	0.62	0.75	0.81	0.81	0.88	1.06	1.12	1.25	
H		in	0.25	0.25	0.31	0.31	0.38	0.38	0.56	0.62	0.69	0.75	0.81	1.00	
		mm	6	6	8	8	10	10	14	16	18	19	21	25	
		lb	3	6	10	17	32	48	95	136	225	388	588	1300	
		kg	2	3	5	8	15	22	44	62	103	177	268	591	
ROUND HEAD															
<p>App. Wt./100 pcs.</p>		A	in	0.38	0.44	0.50	0.56	0.62	0.75	0.81	0.81	0.88	1.06	1.12	1.25
		A	mm	10	11	13	14	16	19	21	21	22	27	28	32
	D	in	1.38	1.62	1.62	1.75	1.75	2.00	2.00	2.00	2.50	2.75	2.75	3.00	
	D	mm	35	41	41	45	45	51	51	51	64	70	70	76	
	E	in	0.41	0.53	0.69	0.84	1.06	1.31	1.69	1.91	2.38	2.88	3.50	4.50	
	E	mm	10	13	18	21	27	33	43	49	60	73	88	114	
		lb	13	13	18	25	38	75	113	156	300	475	763	1288	
		kg	6	6	8	12	18	34	52	71	137	216	347	586	
	BUSHINGS														
	HEX HEAD														
<p>App. Wt./100 pcs.</p>	A	in	—	0.44	0.50	0.56	0.62	0.75	0.81	0.81	0.88	1.06	1.12	1.25	
	A	mm	—	11	13	14	16	19	21	21	22	27	28	32	
	F	in	—	0.62	0.69	0.88	1.06	1.38	1.75	2.00	2.50	3.00	3.50	4.62	
	F	mm	—	16	18	22	27	35	45	51	64	76	89	117	
	G	in	—	0.12	0.16	0.19	0.22	0.25	0.28	0.31	0.34	0.38	0.41	0.50	
	G	mm	—	3	4	5	6	6	7	8	9	10	10	13	
		NPS	—	1/8	1/8	1/8	1/8	1/8	1/8	1/4	1/4	1/2	1/2	1 1/2	
		DN	—	6	6	6	6	6	6	8	8	15	15	40	
		lb	—	2	5	6	13	19	39	68	163	238	350	831	
		kg	—	1	3	3	6	9	18	31	74	108	159	378	
FLUSH															
<p>Lowest Reduction</p> <p>App. Wt./100 pcs.</p>	A	in	—	0.44	0.50	0.56	0.62	0.75	0.81	0.81	0.88	1.06	1.12	1.25	
		mm	—	11	12	14	16	19	21	21	22	27	28	32	
		NPS	—	1/8	1/8	1/8	1/8	1/8	1/8	1/4	1/4	3/4	1	1 1/2	
		DN	—	6	6	6	6	6	6	8	8	20	25	40	
		lb	—	2	5	6	13	13	13	19	38	63	100	200	
		kg	—	1	3	3	6	6	6	9	18	29	46	91	

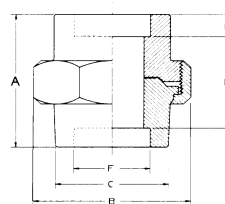
Note: Plugs and bushings are not identified by Pressure Class.
They may be used for ratings up to Pressure Class 6000 (per ASME B16.11).

FORGED STEEL UNIONS

Class 3000 threaded and socket-weld
Class 6000 threaded and socket-weld



Threaded



83

Socket-Weld

CLASS 3000

SIZE	SIZE	A	A	B	B	C*	C*	D	D	E	E	F	F	WEIGHT PER UNION	
NPS	DN	In	mm	In	mm	In	mm	In	mm	In	mm	In	mm	lb	Kg
1/8	6	1 11/16	43	1 31/64	38	53/64	21	25/32	20	7/16	11	0.420 0.440	11	0.38	0.17
1/4	8	1 11/16	43	1 31/64	38	53/64	21	25/32	20	7/16	11	0.555 0.575	14 15	0.36	0.16
3/8	10	1 27/32	47	1 11/16	43	1	25	31/32	25	7/16	11	0.690 0.710	18 18	0.50	0.23
1/2	15	2	50	1 15/16	49	1 3/16	30	1 3/32	27	7/16	11	0.855 0.875	22 22	0.695	0.32
3/4	20	2 5/16	58	2 3/8	60	1 15/32	37	1 5/32	29	9/16	14	1.065 1.085	27 28	1.175	0.53
1	25	2 7/16	62	2 25/32	71	1 25/32	45	1 3/8	35	9/16	14	1.330 1.350	34 34	1.64	0.75
1 1/4	32	2 7/8	73	3 23/64	85	2 7/32	56	1 45/64	43	9/16	14	1.675 1.695	43 43	2.59	1.18
1 1/2	40	3	76	3 23/32	85	2 35/64	65	1 7/8	48	9/16	14	1.915 1.935	49 49	3.41	1.55
2	50	3 1/2	89	4 27/64	113	3 1/16	78	2 1/16	52	11/16	17	2.406 2.426	61 62	5.12	2.33
2 1/2	65	4 1/4	106	5 15/64	131	3 9/16	90	2 3/8	60	7/8	22	2.906 2.931	74 74	8.75	3.98
3	80	4 7/16	113	6 5/32	155	4 9/32	109	2 7/16	62	1	25	3.535 3.560	90 90	12.625	5.74

CLASS 6000

SIZE	SIZE	A	A	B	B	C*	C*	D	D	E	E	F	F	WEIGHT PER UNION	
NPS	DN	In	mm	In	mm	In	mm	In	mm	In	mm	In	mm	lb	Kg
1/8	6	1 11/16	43	1 31/64	38	53/64	21	25/32	20	7/16	11	0.420 0.440	11	0.50	0.22
1/4	8	1 27/32	47	1 11/16	43	1	25	31/32	25	7/16	11	0.555 0.575	14 15	0.56	0.25
3/8	10	2	50	1 15/16	49	1 3/16	30	1 3/32	27	7/16	11	0.690 0.710	18 18	0.75	0.34
1/2	15	2 5/16	58	2 3/8	60	1 15/32	37	1 5/32	29	9/16	14	0.855 0.875	22 22	1.25	0.57
3/4	20	2 7/16	62	2 25/32	71	1 25/32	45	1 3/8	35	9/16	14	1.065 1.085	27 28	1.75	0.8
1	25	2 7/8	73	3 23/64	85	2 7/32	56	1 45/64	43	9/16	14	1.330 1.350	34 34	3.0	1.36
1 1/4	32	3	76	3 23/32	95	2 35/64	65	1 7/8	48	9/16	14	1.675 1.695	43 43	3.75	1.70
1 1/2	40	3 1/2	89	4 27/64	113	3 1/16	78	2 1/16	52	11/16	22	1.915 1.935	49 49	6.0	2.73
2	50	4 1/8	103	5 15/64	131	3 9/16	90	2 3/8	60	7/8	22	2.406 2.426	61 62	10.5	4.77

* "C" dimension measures across octagon corners or across the diameter as applicable. The 2 1/2 NPS / 65 DN and 3 NPS / 80 DN -3000 and 2 NPS / 50 DN - 6000 sizes have octagonal male and female ends; the other sizes are round.

Lug Nut Unions

Lug Nut Unions have with modified Stub-Acme threads and are ideal for applications requiring rapid assembly and/or breakdown.

Other features of the Lug Nut Union include :

- 1) 3000 psi NSCWP
- 2) Threaded and socket-weld ends
- 3) Seating characteristics of AAR unions
- 4) Available in sizes 3/8 - 4 NPS/10 - 100 DN
- 5) Twin lugs in sizes up to 3/4 NPS / 20 DN
- 6) Tri-lug design in sizes from 1 - 4 NPS/25 - 100 DN
- 7) Plated lug nut

SIZE (NPS)	SIZE (DN)	A (In)	A (mm)
3/8	10	1.950	50
1/2	15	2.065	52
3/4	20	2.375	60
1	25	2.580	66
1 1/4	32	2.950	75
1 1/2	40	3.115	79
2	50	3.575	91
2 1/2	65	4.200	107
3	80	4.475	114
4	100	8.500	216

FORGED STEEL CATOLETS

CATOLETS PROVIDE A STRONG BRANCH PIPE CONNECTION, CONSIDERABLY STRONGER THAN A WELDED PIPE-TO-PIPE CONNECTION. CONSEQUENTLY, WITH GOOD WELDING PROCEDURES, CATOLETS OFFER GREATER RESISTANCE TO DISTORTION AND BURSTING. CATOLETS READILY AND ECONOMICALLY PERMIT THE ADDING OF BRANCH CONNECTORS TO EXISTING PIPING INSTALLATION, ELIMINATING THE (RELATIVELY HIGHER COST OF) CUTTING OR DISASSEMBLY AND REASSEMBLY REQUIRED FOR THE INSTALLATION OF TEES. CATOLETS OF THE SAME OUTLET SIZE AS A HEADER OR RUN PIPE SIZE (I.E."FULL SIZE" CATOLETS) ARE SO PROPORTIONED THAT THE (ELLIPTICALLY-SHAPED) HOLE IN THE HEADER PIPE HAS THE MINIMUM WEAKENING OR DISTORTION EFFECT, AND YET PROVIDES GOOD FLUID FLOW CHARACTERISTICS.

SPECIFICATIONS

CHEMICAL AND PHYSICAL PROPERTIES ARE RIGIDLY CONTROLLED TO ENSURE CONSISTENTLY HIGH QUALITY. PHYSICAL AND TRACEABILITY OF CHEMICAL TEST REPORTS ARE AVAILABLE ON REQUEST. INDIVIDUAL CATOLETS CAN BE ESTABLISHED THROUGH THE HEAT CODE OF EACH FITTING. CATOLETS MEET THE REQUIREMENTS OF MSS STANDARD SP-97. THEY ARE FORGED FROM STEEL WHICH COMPLIES WITH ASTM A105.

THREADED CATOLETS

THREADS CONFORM WITH ASME B1.20.1.

SOCKET WELD CATOLETS

SOCKET DIMENSIONS CONFORM WITH ASME B16.11.

BUTTWELD CATOLETS

BUTTWELDING ENDS CONFORM WITH ASME B16.25.

REINFORCEMENT REQUIREMENTS

ASME B31.1 POWER PIPING CODE

ASME B31.3 REFINERY CODE

FORGING MARKINGS

CATOLETS ARE CLEARLY MARKED WITH THE FOLLOWING:

OUTLET SIZE

RANGE OF RUN PIPE SIZES THAT THE CATOLETS WILL FIT

THE WEIGHT, SCHEDULE NUMBER, OR PRESSURE CLASS

THE MATERIAL SPECIFICATION

STEEL HEAT IDENTIFICATION

INSTALLATION NOTE

CATOLETS ARE DESIGNED TO HAVE NO MORE THAN A 1/16" GAP BETWEEN THE BASE OR SKIRT OF THE CATOLET WHEN IT IS SEATED DIRECTLY UPON THE APPROPRIATE RUN PIPE. IT IS RECOMMENDED, HOWEVER, THAT THE SKIRT OF CATOLETS BE HELD SLIGHTLY ABOVE THE RUN PIPE AND TACK WELDED TO PROVIDE A SMALL CONTINUOUS ROOT GAP BETWEEN THE SKIRT AND RUN PIPE BEFORE COMPLETING THE ALL-AROUND WELDING BEADS OR FILLET.

SPECIALS

CAPEX WILL BE HAPPY TO ASSIST YOU WITH SPECIALLY MACHINED CATOLETS.

PRESSURE TEMPERATURE RATINGS

MSS STANDARD PRACTICES SP-97 GIVES THE FOLLOWING CORRELATION BETWEEN FITTING PRESSURE CLASS AND PIPE SCHEDULE NUMBER/WALL THICKNESS DESIGNATION FOR CALCULATION OF PRESSURE-TEMPERATURE RATINGS:

PRESSURE TEMPERATURE RATINGS

MSS STANDARD PRACTICE SP-97 GIVES THE FOLLOWING CORRELATION BETWEEN FITTING PRESSURE CLASS AND PIPE SCHEDULE NUMBER / WALL THICKNESS DESIGNATION FOR CALCULATION OF PRESSURE-TEMPERATURE RATINGS:

BRANCH CONNECTION TYPE	PRESSURE CLASS OF FITTING	NPS	DN	PIPE WALL FOR RATING BASES
BUTTWELD	STD	1/8 - 24	6 - 600	STD
	XS	1/8 - 24	6 - 600	XS
	SCH . 160	1/2 - 6	15 - 150	SCH . 160
THREADED	3000	1/4 - 4	8 - 100	XS
	6000	1/2 - 2	15 - 50	SCH . 160
SOCKET WELDING	3000	1/2 - 2	15 - 50	XS
	6000	1/2 - 2	15 - 50	SCH . 160

THE MAXIMUM ALLOWABLE PRESSURE OF A FITTING IS COMPUTED IN ACCORDANCE WITH THE APPLICABLE PIPING CODE OR REGULATION FOR STRAIGHT SEAMLESS HEADER (RUN) PIPE OR FOR MATERIAL OF EQUIVALENT COMPOSITION AND MECHANICAL PROPERTIES TO THE FITTING. ANY CORROSION OR MECHANICAL ALLOWANCES AND ANY REDUCTION IN ALLOWABLE STRESS DUE TO TEMPERATURE OR OTHER SERVICE CONDITIONS, MUST BE APPLIED TO THE PIPE AND FITTING ALIKE.

FORGED STEEL CATOLETS RUN SIZE CONSOLIDATION

CATOLETS ARE MANUFACTURED TO COVER AS MANY RUN SIZE AS POSSIBLE PER OUTLET SIZE.
THE RANGE OF RUN SIZES IS BASED ON A MAXIMUM GAP OF 1/16" BETWEEN THE FITTING AND
THE PIPE (ON THE LARGEST SIZE OF RUN PIPE SHOWN ON THE FITTING). THE FOLLOWING CHART
SHOWS THE RANGE OF RUN PIPE SIZES PER OUTLET SIZE.

STANDARD, EXTRA STRONG AND CLASS 3000 FITTINGS											
N P S	DN	NOMINAL PIPE SIZE		NOMINAL PIPE SIZE		N P S	DN	NOMINAL PIPE SIZE		NOMINAL PIPE SIZE	
		NPS	DN	NPS	DN			NPS	DN	NPS	DN
1/8	6	3/8 X 1/8	10 X 6	2 1/2-1 1/4X1/8	65-32X6	1 1/2	40	1 1/2X1 1/2	40X40	6-5X1 1/2	150-125X40
		1/2 X 1/8	15 X 6	36-3X1/8	900-80X6			2X1 1/2	50X40	12-8X1 1/2	300-200X40
		1-3/4 X 1/8	25-20 X 6					2 1/2X1 1/2	65X40	24-14X1 1/2	600-350X40
1/4	8	3/8 X 1/4	10 X 8	2 1/2-1 1/4X1/4	65-32X8	2	50	3X1 1/2	80X40	36-26X1 1/2	900-650X40
		1/2 X 1/4	15 X 8	36-3X1/4	900-80X8			4-3 1/2X1 1/2	100-90X40		
3/8	10	1/2 X 3/8	15 X 10	2 1/2-1 1/4X3/8	65-32X10	2	50	2X2	50X50	5X2	125X50
		1-3/4 X 3/8	25-20 X 10	36-3X3/8	900-80X10			2 1/2X2	65X50	6X2	150X50
1/2	15	1/2 X 1/2	15 X 15	2 1/2-2X1/2	65-50X15	2	65	3X2	80X50	10-8X2	250-200X50
		3/4 X 1/2	20 X 15	8-3X1/2	200-80X15			4-3 1/2X2	100-90X50	18-12X2	450-300X50
		1 X 1/2	25 X 15	36-10X1/2	900-250X15					36-20X2	900-500X50
3/4	20	1 1/2-1 1/4 X 1/2	40-32 X 15			2 1/2	65	2 1/2X2 1/2	65X65	6X2 1/2	150X65
		3/4 X 3/4	20 X 20	5-3X3/4	125-80X20			3X2 1/2	80X65	8X2 1/2	200X65
		1 X 3/4	25 X 20	12-6X3/4	300-150X20			4X2 1/2	90X65	12-10X2 1/2	300-250X65
1	25	1 1/2-1 1/4 X 3/4	40-32 X 20	36-14X3/4	900-350X20	3	80	5X2 1/2	125X65	18-14X2 1/2	450-350X65
		2 1/2-2 X 3/4	65-50 X 20					6X3	150X80	36-24X3 1/2	900-600X80
		1 X 1	25 X 25	3 1/2-3X1	90-80X25			3 1/2X3	90X80	8X3	200X80
1 1/4	32	1 1/4 X 1/4	32 X 32	5-4X1 1/4	125-100X25	3 1/2	90	4X3	100X80	10X3	250X80
		1 1/2 X 1/4	40 X 25	10-6X1	250-150X25			5X3	125X80	14-12X3	350-300X80
		2 X 1/4	50 X 25	36-12X1	900-300X25			6X3	150X80	20-16X3	500-400X80
1 1/4	32	2 1/2 X 1	65 X 25			3 1/2	90	3 1/2X3 1/2	90X90	10X3 1/2	250X90
		1 1/4 X 1 1/4	32 X 32	5-4X1 1/4	125-100X32			4X 3 1/2	100X90	14-12X3 1/2	350-300X90
		1 1/2 X 1 1/4	40 X 32	8-6X1 1/4	200-150X32			5X3 1/2	125X90	20-16X3 1/2	500-400X90
1 1/4	32	2 X 1 1/4	50 X 32	18-10X1 1/4	450-250X32	4	100	6X3 1/2	150X90	36-24X3 1/2	900-600X90
		2 1/2 X 1 1/4	65 X 32	36-20X1 1/4	900-500X32			8X3 1/2	200X90		
		3 1/2-3 X 1 1/4	90-80 X 32					4X4	100X100	10X4	250X100
								5X4	125X100	14-12X4	350-300X100
								6X4	150X100	20-16X4	500-400X100
								8X4	200X100	36-24X4	900-600X100

CLASS 6000 FITTINGS					
N P S	DN	NOMINAL PIPE SIZE		NOMINAL PIPE NPS	RUN SIZE DN
		NPS	DN		
1/2	15	1-3/4X1/2	25-20X15	36-10X1 1/4	900-250X32
		2-1 1/4X1/2	50-32X15		
		6-2 1/2X1/2	150-65X15		
3/4	20	36-8X1/2	900-200X15		
		1X3/4	25X20		
		2 1/2-1 1/4X3/4	65X32X20		
1	25	10-3X3/4	250-80X20		
		36-12X3/4	900-300X20		
		1 1/2-1 1/4X1	40-32X25		
1 1/4	32	2 1/2-2X1	65-50X25		
		10-3X1	250-80X25		
		36-12X1	900-300X25		
1 1/2	40	40X32	65-50X32		
		2 1/2-2X1 1/4	90-80X32		
		3 1/2-3X1 1/4	200-100X32		
2	50	8-4X1 1/4	200-100X32		
		2X1 1/2	50X40	8-6X1 1/2	200-150X40
		2 1/2X1 1/2	65X40	18-10X1 1/2	450-250X40
2	50	3 1/2-3X1 1/2	90-80X40		
		5-4X1 1/2	125-100X40		
		2 1/2X2	65X50	6X2	150X50
2	50	3X2	80X50		
		4X2	100X50	10-8X2	250-200X50
		5X2	125X50	20-12X2	500-300X50

SCH. 160 & XXS

N P S	DN	NOMINAL PIPE SIZE		N P S	DN	NOMINAL PIPE SIZE		N P S	DN	NOMINAL PIPE SIZE		N P S	DN	NOMINAL PIPE SIZE	
		NPS	DN			NPS	DN			NPS	DN			NPS	DN
1/2	15	1/2X1/2	15X15	1	25	1X1	25X25	1 1/2	40	1 1/2X1 1/2	40X40	2	50	20-10X1 1/2	500-250X40
		1 1/4-3/4X1/2	32-20X15			2 1/2-1 1/4X1	65-32X25			2 1/2-2X1 1/2	65-50X40			22X 1 1/2	550X40
		36-1 1/2X1/2	900-40X15			10-3X1	250-80X25			3 1/2-3X1 1/2	90-80X40			36-24X1 1/2	900-600X40
3/4	20	1-3/4X3/4	25-20X20	1 1/4	32	1 1/2-1 1/4X1 1/4	40-32X32	2	50	2X2	50X50	2	50	8-6X2	200-150X50
		2-1 1/4X3/4	50-32X20			2 1/2-2X1 1/4	65-50X32			2 1/2X2	65X50			18-10X2	450-250X50
		6-2 1/2X3/4	150-65X20			10-3X1 1/4	250-80X32			3 1/2-3X2	90-80X50			36-20X2	900-500X50
		36-8X3/4	900-200X20			36-12X1 1/4	900-300X32			5-4X2	125-100X50				

12 NPS / 300 DN - IS THE LARGEST RUN PIPE SIZE FOR WHICH THE FITTING IS APPLICABLE.

8 NP / 200 DN - IS THE SMALLEST RUN PIPE SIZE FOR WHICH THE FITTING IS APPLICABLE.

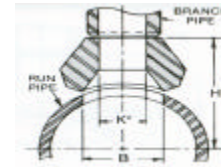
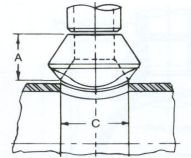
1 1/2 NPS / 90 DN - IS THE OUTLET (BRANCH) SIZE

NOTE: CLEARLY SPECIFY THE SCHEDULES OR WEIGHTS OF THE BRANCH AND RUN PIPE IF THEY DIFFER.

EXAMPLE: 3 NPS / 80 DN SCH 80 X 1 1/2 NPS / 40 DN SCH 40 BW CATOLET.

BUTTWELD CATOLETS

FULL AND REDUCING SIZES STANDARD AND EXTRA STRONG

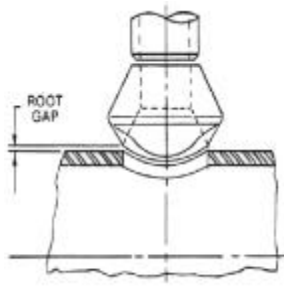


DIAMETER K OF CATOLET BORE IS THE SAME AS THE INSIDE DIAMETER OF THE BRANCH PIPE OF MATCHING WEIGHT OR SCHEDULE .

OUTLET SIZE		NOMINAL RUN PIPE SIZE		STANDARD						EXTRA STRONG						APPROX. WEIGHT			
NPS	DN	NPS	DN	A		B		C		lb	kg	A		B		C		lb	kg
				in	mm	in	mm	in	mm			in	mm	in	mm	in	mm		
1/2	15	1/2	15	3/4	19	5/8	16	15/16	24	0.16	0.07	3/4	19	5/8	16	15/16	24	0.17	0.08
1/2	15	3/4-36	20-900	3/4	19	15/16	24	15/16	24	0.17	0.08	3/4	19	15/16	24	15/16	24	0.19	0.09
3/4	20	3/4	20	7/8	22	13/16	21	1 3/16	30	0.25	0.11	7/8	22	13/16	21	1 3/16	30	0.26	0.12
3/4	20	1-36	25-900	7/8	22	1 3/16	30	1 3/16	30	0.26	0.12	7/8	22	1 3/16	30	1 3/16	30	0.3	0.14
1	25	1	25	1 1/16	27	1 1/32	26	1 7/16	37	0.42	0.21	1 1/16	27	1 1/32	26	1 7/16	37	0.44	0.20
1	25	1 1/4-36	32-900	1 1/16	27	1 7/16	37	1 7/16	37	0.5	0.23	1 1/16	27	1 7/16	37	1 7/16	37	0.53	0.24
1 1/4	32	1 1/4	32	1 1/4	32	1 3/8	35	1 3/4	44	0.75	0.34	1 1/4	32	1 3/8	35	1 3/4	44	0.77	0.35
1 1/4	32	1 1/2-36	40-900	1 1/4	32	1 3/4	44	1 3/4	44	0.82	0.37	1 1/4	32	1 3/4	44	1 3/4	44	0.88	.40
1 1/2	40	1 1/2	40	1 5/16	33	1 5/8	41	2	51	0.85	0.39	1 5/16	33	1 5/8	41	2	51	0.9	0.41
1 1/2	40	2-36	50-900	1 5/16	33	2	50	2	51	1.2	0.55	1 5/16	33	2	50	2	51	1.3	0.59
2	50	2	50	1 1/2	38	2 1/16	52	2 9/16	65	1.6	0.73	1 1/2	38	2 1/16	52	2 9/16	65	1.7	0.77
2	50	2 1/2-36	65-900	1 1/2	38	2 9/16	65	2 9/16	65	1.9	0.86	1 1/2	38	2 9/16	65	2 9/16	65	1.8	0.82
2 1/2	65	2 1/2	65	1 5/8	41	2 7/16	62	3	76	2.4	1.09	1 5/8	41	2 7/16	62	3	76	2.6	1.18
2 1/2	65	3-36	80-900	1 5/8	41	3	76	3	76	2.7	1.23	1 5/8	41	3	76	3	76	2.7	1.23
3	80	3	80	1 3/4	44	3 1/16	78	3 11/16	92	3.8	1.73	1 3/4	44	3 1/16	78	3 11/16	92	4.3	1.95
3	80	3 1/2-36	90-900	1 3/4	44	3 11/16	92	3 11/16	92	4.2	1.91	1 3/4	44	3 11/16	92	3 11/16	92	4.2	1.91
3 1/2	90	3 1/2	90	2	50	3 9/16	90	4	102	5.0	2.27	2	51	3 9/16	90	4	102	5.1	2.32
3 1/2	90	4-36	100-900	1 7/8	48	4	102	4	102	5.5	2.50	1 7/8	48	4	102	4	102	5.6	2.55
4	100	4	100	2	50	4	102	4 3/4	90	7.6	3.45	2	51	4	102	4 3/4	90	7.5	3.41
4	100	5-36	125-900	2	50	4 3/4	90	4 3/4	90	7.1	3.23	2	51	4 3/4	120	4 3/4	90	7.0	3.18
5	125	5	125	2 1/8	52	5 1/16	129	5 13/16	146	8.5	3.86	2 1/8	53	5 1/16	129	5 13/16	146	7.5	3.41
5	125	6-36	150-900	2 1/4	57	-	-	5 9/16	141	10.3	4.68	2 1/4	57	-	-	5 9/16	141	10.4	4.73
6	150	6	150	2 3/8	60	6 1/16	154	6 11/16	169	14	6.36	3 1/16	78	6 1/16	154	6 11/16	169	15	6.82
6	150	8-36	200-900	2 3/8	60	-	-	6 11/16	169	12	5.45	3 1/16	78	-	-	6 11/16	169	23	10.45
8	200	8	200	2 3/4	70	7 15/16	201	8 11/16	220	28	12.73	3 7/8	98	7 5/8	194	8 11/16	220	32	14.55
8	200	10-36	250-900	2 3/4	70	-	-	8 11/16	220	23	10.45	3 7/8	98	-	-	8 11/16	220	37	16.82
10	250	10	250	3 1/16	78	10	254	10 13/16	275	39	17.73	3 1/2	89	9 3/4	248	10 7/16	275	46	20.91
10	250	12-36	300-900	3 1/16	78	-	-	10 13/16	275	36	17.37	3 11/16	92	-	-	10 7/16	275	46	20.91
12	300	12	300	3 3/8	85	12	305	12 13/16	326	65	29.55	3 15/16	99	11 3/4	298	13	330	61	27.73
12	300	14-36	350-900	3 3/8	85	-	-	12 13/16	326	59	26.82	4 1/16	104	-	-	12 1/2	318	61	27.73
14	350	14	350	3 1/2	89	13 1/4	336	14 1/16	358	70	31.82	4 1/8	104	13	330	14 5/16	364	75	34.09
14	350	16-36	400-900	3 1/2	89	-	-	14 1/16	358	66	30.00	3 15/16	99	-	-	13 13/16	351	70	31.82
16	400	16	400	3 11/16	92	15 1/4	386	16 1/16	408	92	41.82	4 7/16	113	15	381	16 1/2	419	115	52.27
16	400	18-36	450-900	3 11/16	92	-	-	16 1/16	408	75	34.09	4 3/16	106	-	-	15 7/8	403	102	46.36
18	450	18	450	4 1/16	104	17 1/4	438	18 5/8	473	125	56.82	4 11/16	119	17	432	18 5/8	473	130	59.09
18	450	20-36	500-900	3 11/16	96	-	-	18 1/16	459	97	44.09	4 3/8	112	-	-	17 15/16	455	130	59.09
20	500	20	500	4 5/8	116	19 1/4	489	20 1/16	510	175	79.55	5	127	19	483	20 13/16	528	187	85.00
20	500	24-36	600-900	4	102	-	-	20	508	118	53.64	4 11/16	119	-	-	20 1/16	510	158	71.82
24	600	24	600	5 3/8	135	23 1/4	590	25 1/8	638	280	127.27	5 1/2	140	23	584	25 1/8	638	316	143.64
24	600	28-36	650-900	4 9/16	116	-	-	24 3/16	615	220	100.00	5 1/2	140	-	-	24 3/16	615	290	131.82

STANDARD WEIGHT: STANDARD WEIGHT BUTTWELD CATOLETS ARE USED WITH ALL SIZES OF STANDARD PIPE OR SCH.40 PIPE UP TO AND INCLUDING 10 NPS/250 DN .
 THESE CATOLETS MAY BE USED IN CONJUNCTION WITH SCH.40 AND 2000b. FITTINGS. SCH. 40 BUTTWELD CATOLETS OF OUTLET SIZE 24 NPS/600 DN AND OVER ARE AVAILABLE UPON REQUEST.
EXTRA STRONG : EXTRA STRONG BUTTWELD CATOLETS ARE USED WITH ALL SIZES OF XS PIPE AND ARE USED WITH SCH. 80 PIPE UP TO AND INCLUDING SIZES 8 NPS/200 DN .
 THESE CATOLETS MAY BE USED IN CONJUNCTION WITH SCH.80 AND 3000b. FITTINGS. SCH. 80 BUTTWELD CATOLETS OF OUTLET SIZE 24 NPS/600 DN AND OVER ARE AVAILABLE UPON REQUEST.

EACH OUTLET SIZE OF REDUCING CATOLETS LISTED ABOVE IS SUPPLIED IN SEVERAL DIFFERENT RANGES OF RUN PIPE SIZE.
 PLEASE REFER TO THE RUN PIPE SIZE CHART OF PAGE FS13.



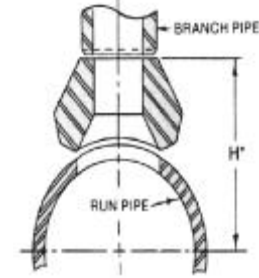
BUTTWELD CATOLETS

DIMENSION 'H'

(Measurements shown in SI Dimensions)

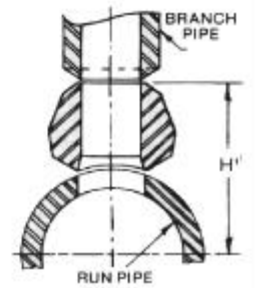
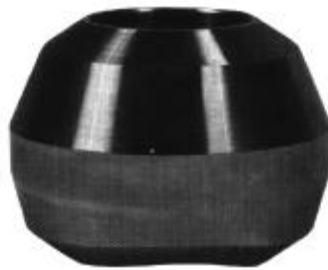
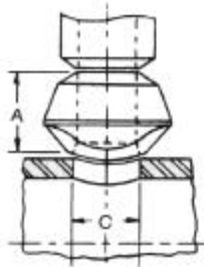
*Dimension 'H' is the distance in millimeters from the centre of the run pipe to the face of the catolet. The weld or root gap is not included in the 'H' dimension below

Dimension 'H' is also indicated on the diagrams shown on pages FS14 and FS17



Nominal RUN Pipe Size DN	Pipe Weight or Schedule Number		OUTLET SIZES (DN)																							
			6	8	10	15	20	25	32	40	50	65	80	89	100	125	150	200	250	300	350	400	450	500	600	
10	STD&XS	mm	25	25																						
	STD&XS	mm	27	29	30	30																				
15	S160&XXS	mm				38																				
	STD&XS	mm	30	30	32	32	37																			
20	S160&XXS	mm				41	45																			
	STD&XS	mm	33	33	35	35	38	43																		
25	S160&XXS	mm				45	48	54																		
	STD&XS	mm	37	37	40	40	43	48	52																	
32	S160&XXS	mm				49	52	59	65																	
	STD&XS	mm	40	40	43	43	46	51	56	57																
40	S160&XXS	mm				52	56	62	68	75																
	STD&XS	mm	46	46	49	49	52	57	62	64	43															
50	S160&XXS	mm				59	62	68	75	81	86															
	STD&XS	mm	54	54	56	56	59	64	68	70	75	78														
65	S160&XXS	mm				64	67	71	76	78	83	89														
	STD&XS	mm	60	60	64	64	67	71	76	78	83	86	89													
80	S160&XXS	mm				73	76	83	89	95	100	106	117													
	STD&XS	mm	67	67	70	70	73	78	83	84	89	92	98	105	108											
89	S160&XXS	mm				76	79	84	89	90	95	98	102	105	108											
	STD&XS	mm	73	73	76	76	79	84	89	90	95	98	102	105	108	113	119	130								
100	S160&XXS	mm				86	89	95	102	108	113	119	130	119	122	129										
	STD&XS	mm	87	87	90	90	94	98	103	105	110	113	116	119	122	129										
125	S160&XXS	mm				100	103	110	116	122	127	133	144	-	156	165										
	STD&XS	mm	100	100	103	103	106	111	116	117	122	125	129	132	135	141	144									
150	XS	mm	100	100	103	103	106	111	116	117	122	125	129	132	135	141	144									
	S160&XXS	mm				113	116	122	129	135	140	146	157	-	168	178	189									
200	STD	mm	125	125	129	129	132	137	141	143	148	151	154	157	160	167	170	179								
	XS	mm	125	125	129	129	132	137	141	143	148	151	154	157	160	167	170	179								
250	STD	mm	152	152	156	156	159	164	168	170	175	178	181	184	187	194	197	206	214							
	XS	mm	152	152	156	156	159	164	168	170	175	178	181	184	187	194	197	206	214	235	232					
300	STD	mm	178	178	181	181	184	189	194	195	200	203	206	210	213	219	222	232	240	248						
	XS	mm	178	178	181	181	184	189	194	195	200	203	206	210	213	219	220	232	240	256	262					
350	STD	mm	194	194	197	197	200	205	210	211	216	219	222	225	229	235	238	248	256	264	267					
	XS	mm	194	194	197	197	200	205	210	211	216	219	222	225	229	235	238	248	256	264	267					
400	STD	mm	219	219	222	222	225	230	235	237	241	244	248	251	254	260	264	273	281	289	292	297				
	XS	mm	219	219	222	222	225	230	235	237	241	244	248	251	254	260	264	273	281	289	292	297	306	316		
450	STD	mm	244	244	248	248	251	256	260	262	267	270	273	276	279	286	289	298	306	314	318	322	332	348		
	XS	mm	244	244	248	248	251	256	260	262	267	270	273	276	279	286	289	298	306	314	318	322	332	348		
500	STD	mm	270	270	273	273	276	281	286	287	292	295	298	302	305	311	311	324	332	340	343	348	351	371		
	XS	mm	270	270	273	273	276	281	286	287	292	295	298	302	305	311	311	324	332	340	343	348	351	371		
600	STD	mm	321	321	324	324	327	332	337	338	343	346	349	352	356	362	365	375	383	391	394	398	402	406		
	XS	mm	321	321	324	324	327	332	337	338	343	346	349	352	356	362	365	375	383	391	394	398	402	406		

Buttweld Catolets Schedule 160 and Double Extra Strong



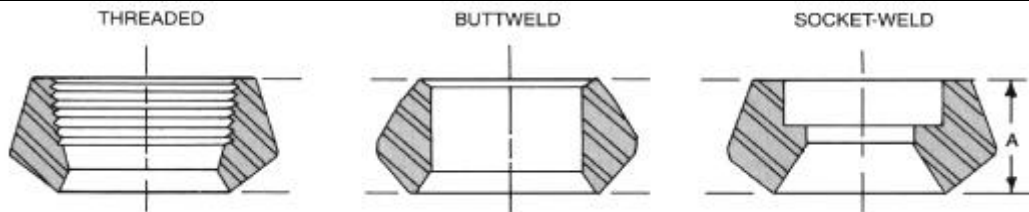
NOTE:
See page FS13 or FS16 for H dimensions.

SCHEDULE 160 and Double EXTRA STORNG											
Outlet Size		A		C		Approx. Weight		Outlet Size		Approx. Weight	
NPS	DN	in	mm	in	mm	lb	kg	NPS	DN	in	mm
1/2	15	1 1/8	28	9/16	14	.25	.12	3	80	2 7/8	73
3/4	20	1 1/4	32	3/4	19	.71	.33	4	100	3 5/16	84
1	25	1 1/2	32	1	25	.83	.38	5	125	3 11/16	92
1 1/4	32	1 3/4	44	1 5/16	33	1.25	.57	6	150	4 1/8	103
1 1/2	40	2	50	1 1/2	38	1.75	.80				
2	50	2 3/16	56	1 11/16	43	2.13	.97				
2 1/2	65	2 7/16	62	2 1/8	54	3.38	1.54				

The reducing Catolets listed above for outlet sizes 1/2-2 NPS/15-50 DN are supplied in several different ranges of run pipe size for each outlet size. Please refer to run pipe size chart on the page FS13.

Schedule 160 and Double Extra Strong buttweld Catolets may be used in conjunction with Class 6000 fittings.

FLAT CATOLETS Class 3000 Threaded, Buttweld & Socket Weld



Size		A		Approx. Weight		Size		A		Approx. Weight	
NPS	DN	in	mm	lb	kg	NPS	DN	in	mm	lb	kg
1/4	8	11/16	17	.11	.05	2	50	1 1/2	44	1.8	1.23
3/8	10	13/16	21	.2	.10	2 1/2	65	1 3/4		2.7	
1/2	15	1	25	.3	.14				25		1.50
3/4	20	1 1/16	27	.4	.18						
1	25	1 9/32	33	.7	.32	3	80	2		3.3	
1 1/4	32	1 11/32	34	.9	.41				38		.82
1 1/2	40	1 3/8	35	1.2	.55						

Flat Catolets are designed to facilitate welding to a flat surface for the installation of

Class 60 flat Catolets are available on application.

Socket-Weld Catolets

Full and Reducing

Class 3000 and 6000



CLASS 3000 REDUCING and FULL SIZES

Outlet Size		Nominal Run Pipe Size		A		B		C		D'		E		F		Approx.	Weight
NPS	DN	NPS	DN	in	mm	in	mm	in	mm	+/- .03 in	+/- .762 mm	+ .01 - .00 in	+/- .254 - .00 mm	in	mm	lb	kg
1/2	15	1/2	15	1	25	5/8	16	15/16	24	.622	16	.855	22	1 1/4	32	.2	.09
1/2	15	3/4-36	20-900	1	25	15/16	24	15/16	24	.622	16	.855	22	1 1/4	32	.35	.16
3/4	20	3/4	20	1 1/16	27	13/16	21	1 3/16	30	.824	21	1.065	27	1 7/16	37	.27	.12
3/4	20	1-36	25-900	1 1/16	27	1 3/16	30	1 3/16	30	.824	21	1.065	27	1 7/16	37	.4	.18
1	25	1	25	1 5/16	33	1 1/16	27	1 7/16	37	1.049	27	1.330	34	1 13/16	46	.6	.27
1	25	1 1/4-36	32-900	1 5/16	33	1 7/16	37	1 7/16	37	1.049	27	1.330	34	1 13/16	46	.8	.37
1 1/4	32	1 1/4	32	1 5/16	33	1 3/8	35	1 3/4	44	1.380	35	1.675	43	2 3/16	56	.8	.37
1 1/4	32	1 1/2-36	40-900	1 5/16	33	1 3/4	44	1 3/4	44	1.380	35	1.675	43	2 3/16	56	1.1	.50
1 1/2	40	1 1/2	40	1 3/8	35	1 5/8	41	2	50	1.610	41	1.915	49	2 7/16	62	1.2	.55
1 1/2	40	2-36	50-900	1 3/8	35	2	50	2	50	1.610	41	1.915	49	2 7/16	62	1.5	.68
2	50	2	50	1 1/2	38	2 1/16	52	2 9/16	64	2.067	53	2.406	61	2 15/16	74	1.8	.82
2	50	2 1/2-36	65-900	1 1/2	38	2 9/16	64	2 9/16	64	2.067	53	2.406	61	2 15/16	74	2.0	.91
2 1/2	65	2 1/2	65	1 9/16	40	2 1/2	64	3	75	2.469	63	2.906	74	3 7/16	87	2.5	1.14
2 1/2	65	3-36	80-900	1 9/16	40	3	75	3	75	2.469	63	2.906	74	3 7/16	87	3.0	1.36
3	80	3	80	1 3/4	44	3 1/16	78	3 11/16	92	3.068	78	3.535	90	4 1/8	104	3.8	1.73
3	80	3 1/2-36	90-900	1 3/4	44	3 11/16	92	3 11/16	92	3.068	78	3.535	90	4 1/8	104	4.2	1.91
3 1/2	90	3 1/2	90	2 1/8	54	3 9/16	64	4	100	3.548	90	4.040	103	4 13/16	122	4.3	1.95
3 1/2	90	4-36	100-900	2 1/8	54	4	100	4	100	3.548	90	4.040	103	4 13/16	122	4.3	1.95
4	100	4	100	1 7/8	48	4 1/16	102	4 3/4	120	4.026	102	4.545	115	5 1/8	128	7.2	3.27
4	100	5-36	125-900	1 7/8	48	4 3/4	120	4 3/4	120	4.026	102	4.545	115	5 1/8	128	8.0	3.64

CLASS 6000 REDUCING SIZES

Outlet Size		Nominal Run Pipe Size		A		C		D		E		F		Approx. Weight	
NPS	DN	NPS	DN	in	mm	in	mm	+/- .03 in	+/- .762 mm	+ .01 - .00 in	+/- .254 - .00 mm	in	mm	lb	kg
1/2	15	3/4-36	20-900	1 1/4	32	3/4	19	.464	12	.855	22	1 9/16	40	.58	.26
3/4	20	1-36	25-900	1 7/16	37	1	25	.612	16	1.065	27	1 25/32	45	.9	.41
1	25	1 1/4-36	32-900	1 9/16	40	1 5/16	33	.815	21	1.330	34	2 1/4	57	1.8	.82
1 1/4	32	1 1/2-36	40-900	1 5/8	41	1 1/2	38	1.160	29	1.675	43	2 9/16	64	2.6	1.18
1 1/2	40	2-36	50-900	1 11/16	43	1 15/16	49	1.338	34	1.915	49	3	75	3.0	1.36
2	50	2 1/2-36	65-900	2 1/16	52	2 3/4	69	1.687	43	2.406	61	3 5/8	90	5.8	2.64

Each outlet size of the reducing Catolets listed above is supplied in several different ranges of run pipe size. Please refer to the run pipe sizes chart on page FS13.

NOTE: ¹ Tolerance on sizes 2 1/2 NPS / 65 DN and larger is +/- .06.

CLASS 3000 Socket weld Catolets may be used with Std. And XS pipe.
CLASS 6000 Socket weld Catolets may be used with Sch. 160 and XXS pipe

Threaded Catolets Full and Reducing Sizes Class 3000 and 6000



CLASS 3000 REDUCING and FULL SIZES

Outlet Sizes NPS	Nominal Run Pipe Size				A mm	B mm	C mm	F mm	Approx Weight				
	DN	NPS	DN	in					lb	kg			
1/2	15	1/2	15	1	25	5/8	16	15/16	24	1 1/4	32	0.2	0.09
1/2	15	3/4-36	20-900	1	25	15/16	24	15/16	24	1 1/4	32	0.3	0.14
3/4	20	3/4	20	1 1/16	27	13/16	21	1 3/16	30	1 7/16	37	0.35	0.16
3/4	20	1-36	25-900	1 1/16	27	1 3/16	30	1 3/16	30	1 7/16	37	0.42	0.19
1	25	1	25	1 5/16	33	1 1/16	27	1 7/16	37	1 13/16	46	0.6	0.27
1	25	1 1/4-36	32-900	1 5/16	33	1 7/16	37	1 7/16	37	1 13/16	46	0.8	0.36
1 1/4	32	1 1/4	32	1 5/16	33	1 3/8	35	1 3/4	44	2 3/16	56	0.85	0.39
1 1/4	32	1 1/2-36	40-900	1 5/16	33	1 3/4	44	1 3/4	44	2 3/16	56	1.2	0.55
1 1/2	40	1 1/2	40	1 3/8	35	1 5/8	41	2	50	2 7/16	62	1.3	0.59
1 1/2	40	2-36	50-900	1 3/8	35	2	50	2	50	2 7/16	62	1.6	0.73
2	50	2	50	1 1/2	38	2 1/16	59	2 9/16	64	2 15/16	74	1.7	0.77
2	50	2 1/2-36	65-900	1 1/2	38	2 9/16	64	2 9/16	64	2 15/16	74	2.2	1.00
2 1/2	65	2 1/2	65	1 13/16	46	2 1/2	63	3	75	3 7/16	87	2.5	1.14
2 1/2	65	3-36	80-900	1 13/16	46	3	75	3	75	3 7/16	87	3.0	1.36
3	80	3	80	2	50	3 1/16	78	3 11/16	92	4 1/8	103	4.3	1.95
3	80	3 1/2-36	90-900	2	50	3 11/16	92	3 11/16	92	4 1/8	103	4.4	2.00
3 1/2	90	3 1/2	90	2 1/8	54	3 9/16	64	4	100	4 13/16	122	4.5	2.05
3 1/2	90	4-36	100-900	2 1/8	54	4	100	4	100	4 13/16	122	5.6	2.55
4	100	4	100	2 1/4	57	4 1/16	103	4 3/4	120	5 1/8	128	7.3	3.32
4	100	5-30	125-750	2 1/4	57	4 3/4	120	4 3/4	120	5 1/8	128	8.3	3.77

CLASS 6000 REDUCING SIZES

Outlet Sizes NPS	Nominal Run Pipe Size				A mm	B mm	C mm	F mm	Approx Weight				
	DN	NPS	DN	in					lb	kg			
1/2	15	3/4-36	20-900	1 1/4	32	3/4	19	3/4	19	1 9/16	40	0.6	0.27
3/4	20	1-36	25-900	1 7/16	37	1	25	1	25	1 13/16	46	0.9	0.41
1	25	1 1/4-36	32-900	1 9/16	40	1 5/16	33	1 5/16	33	2 1/4	57	2.0	0.91
1 1/4	32	1 1/2-36	40-900	1 9/16	40	1 1/2	38	1 1/2	38	2 9/16	64	3.0	1.36
1 1/2	40	2-36	50-900	1 11/16	43	1 15/16	49	1 15/16	49	3	75	3.2	1.45
2	50	2 1/2-36	65-900	2 1/16	52	2 3/4	69	2 3/4	69	3 5/8	90	6.0	2.73

Each outlet size of the reducing Catolets listed above is supplied in several different ranges of run pipe size.

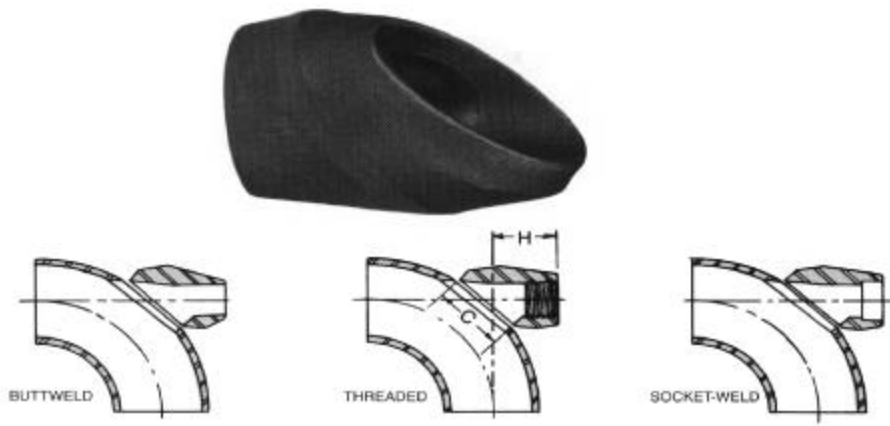
Please refer the run pipe sizes chart on page FS13.

CLASS 6000 threaded Catolets are manufactured only in the sizes shown and may be used with Sch. 160 and XXS pipe.

CLASS 3000 threaded Catolets may be used with Standard and XS pipe.

CLASS 3000

Buttweld, Threaded and Socket-Weld Elbow Catolets



CLASS 3000 THREADED and SOCKET-WELD/STANDARD and XS BUTTWELD

Outlet Size		Nominal Elbow size		C		H		Approx. weight	
NPS	DN	NPS	DN	in	mm	in	mm	lb	kg
1/4	8	36-11/4	900-32	1 1/2	38	1 19/32	40	.5	.23
3/8	10	36-11/4	900-32	1 1/2	38	1 19/32	40	.5	.23
1/2	15	36-11/4	900-32	1 1/2	38	1 19/32	40	.65	.30
3/4	20	36-11/4	900-32	1 23/32	45	1 7/8	48	.75	.34
1	25	36-2	900-50	2 1/8	54	2 3/16	55	1.15	.52
1 1/4	32	36-2	900-50	1 21/32	42	2 3/8	60	1.90	.86
1 1/2	40	36-2	900-50	3	75	2 5/8	67	2.65	1.20
2	50	36-3	900-80	4 1/8	103	3 3/16	80	5.25	2.39

STANDARD and XS BUTTWELD, ONLY

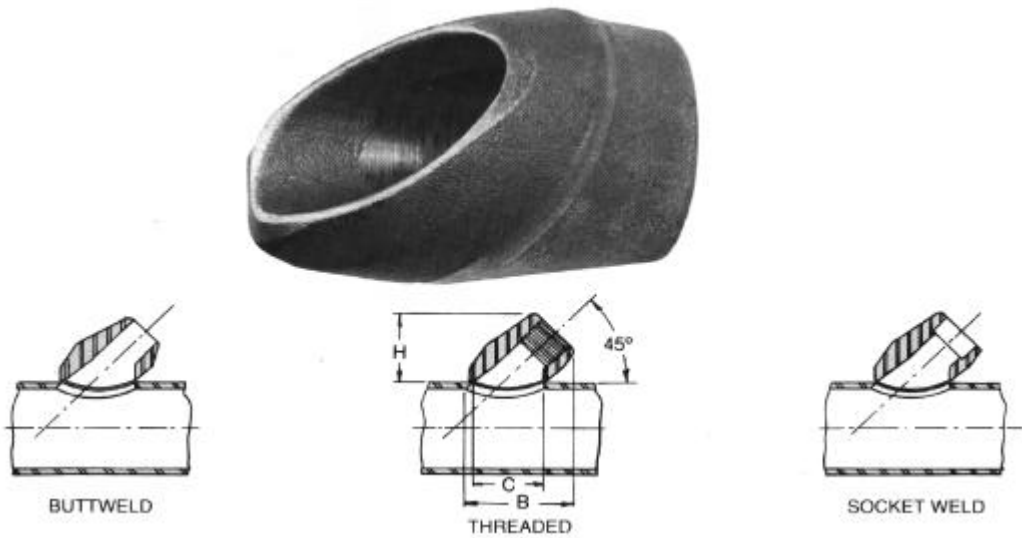
NPS	DN		in	mm	in	mm	lb	kg
2 1/2	65	As specified	4 3/16	105	3 1/4	82	5.5	2.50
3	80	As specified	4 15/16	125	3 13/16	96	6.25	2.84
4	100	As specified	6 7/16	162	4 1/2	114	11.75	5.34
6	150	As specified	9	225	6 3/16	80	.28.0	12.73

CLASS 6000 THREADED and SOCKET-WELD/SCH. 160 and XXS BUTTWELD

NPS	DN	NPS	DN	in	mm	in	mm	lb	kg
1/4	8	36-1 1/4	900-32	1 3/8	35	1 19/32	40	.75	.34
3/8	10	36-1 1/4	900-32	1 3/8	35	1 19/32	40	.75	.34
1/2	15	36-1 1/4	900-32	1 23/32	45	1 7/8	48	.85	.39
3/4	20	36-2	900-50	2 1/8	54	2 3/16	55	1.25	.57
1	25	36-2	900-50	2 21/32	42	2 3/8	60	2.2	1.00
1 1/4	32	36-2	900-50	3	75	2 5/8	67	3.9	1.77
1 1/2	40	36-3	900-80	4 1/8	103	3 3/16	80	6.2	2.82

Elbow Catolets are welded to 90° long radius elbows as branch connections for pipes and fittings. They are also used as pipe hanger or support bosses.

CLASS 3000 and 6000 Buttweld, Threaded and Socket-Weld



Laterals Catolets provide a strong, readily attached 45° lateral outlet connection.

CLASS 3000 THREADED and SOCKET-WELD/STANDARD and XS BUTTWELD

Outlet Size NPS	Outlet Size DN	Nominal Run Pipe Size		H		B		C		Approx. weight	
		NPS	DN	in	mm	in	mm	in	mm	lb	kg
1/4	8	2 1/2-1 1/4/12-3	65-32/300-80	1 1/2	38	2 1/4	57	1 7/16	37	.50	.23
3/8	10	2 1/2-1 1/4/12-3	65-32/300-80	1 1/2	38	2 1/4	57	1 7/16	37	.50	.23
1/2	15	2 1/2-1 1/4/12-3	65-32/300-80	1 1/2	38	2 1/4	57	1 7/16	37	.65	.30
3/4	20	1 1/2-1 1/4/5-2/12-6	40-32/125-50/300-150	1 13/16	46	2 3/4	70	1 23/32	44	.75	.34
1	25	2 1/2-2/5-3/12-6	65-50/125-80/300-150	2 1/8	54	3 1/4	83	2 1/8	54	1.15	.52
1 1/4	32	2 1/2-2/5-3/12-6	65-50/125-80/300-150	2 9/16	65	3 13/16	97	2 21/32	68	1.90	.86
1 1/2	40	2 1/2-2/5-3/12-6	65-50/125-80/300-150	2 3/4	70	4 1/4	108	3	76	2.65	1.20
2	50	5-4/8-6/12-10	125-100/200-150/300-250	3 3/8	86	5 3/8	137	4 1/8	105	5.25	2.30

CLASS 6000 THREADED and SOCKET-WELD/SCH. 160 and XXS BUTTWELD

NPS	DN	NPS	DN	in	mm	in	mm	in	mm	lb	kg
1/4	8	2 1/2-1 1/4/12-3	65-32/300-80	1 1/2	38	2 1/4	57	1 3/8	35	.75	.34
3/8	10	2 1/2-1 1/4/12-3	65-32/300-80	1 1/2	38	2 1/4	57	1 3/8	35	.75	.34
1/2	15	1 1/2-1 1/4/5-2/12-6	40-32/125-50/300-150	1 13/16	46	2 3/4	70	1 23/32	44	.85	.39
3/4	20	2 1/2-2/5-3/12-6	65-50/125-80/300-150	2 1/8	54	3 1/4	83	2 1/8	54	1.25	.57
1	25	2 1/2-2/5-3/12-6	65-50/125-80/300-150	2 9/16	65	3 13/16	97	2 21/32	68	2.20	1.00
1 1/4	32	2 1/2-2/5-3/12-6	65-50/125-80/300-150	2 3/4	70	4 1/4	108	3	76	2.90	1.32
1 1/2	40	5-4/8-6/12-10	125-100/200-150/300-250	3 3/8	86	5 3/8	137	4 1/8	105	6.15	2.80