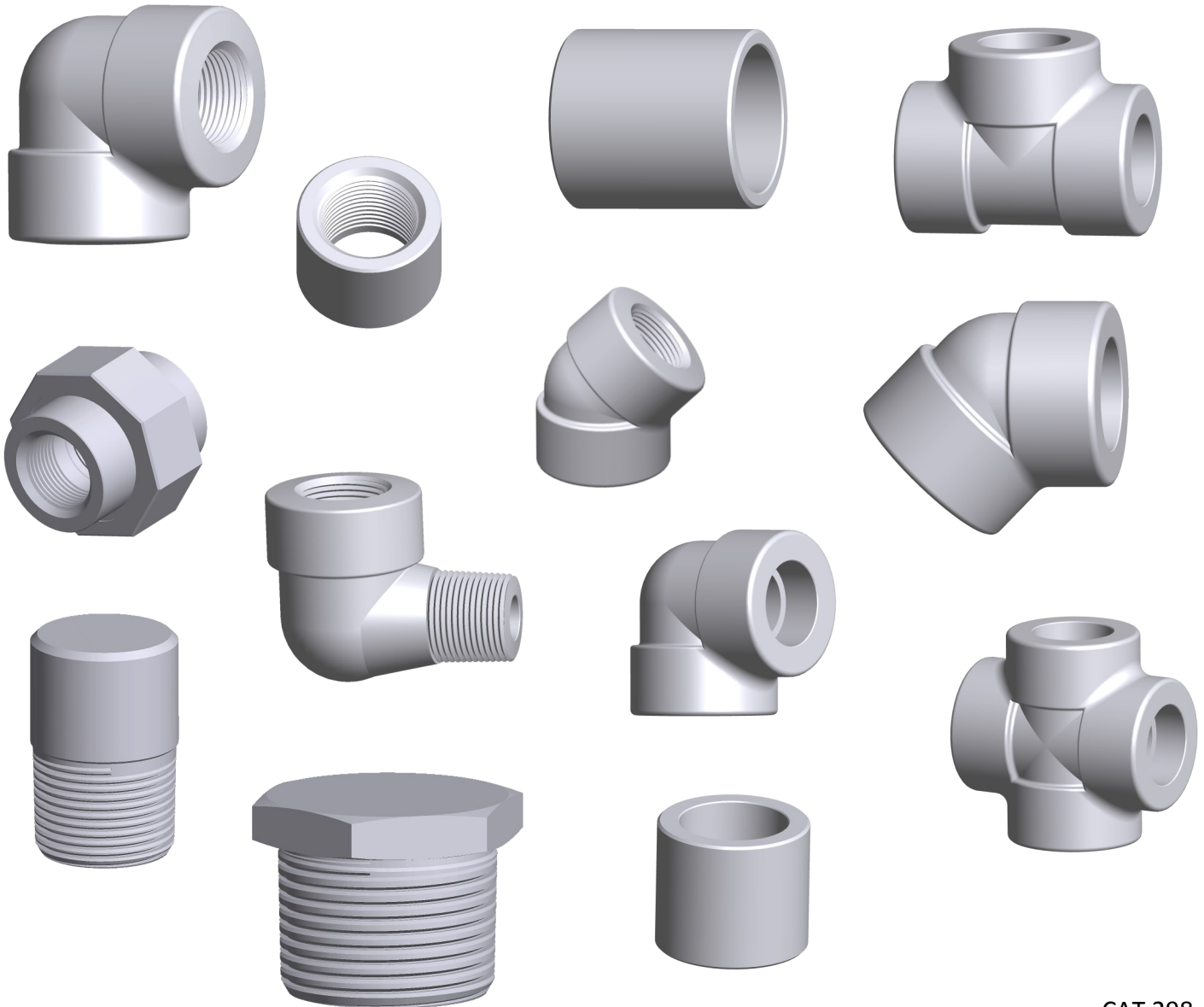


CAMCO

Threaded and Socket Weld Fittings available in
Grade 304 and 316 Stainless Steel



CAT 298



THE PHOENIX FORGE GROUP

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PRODUCT CATALOG

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DIMENSIONS SHOWN IN THIS CATALOG ARE NOMINAL AND SUBJECT TO APPLICABLE STANDARDS AND MANUFACTURER'S TOLERANCES. MATERIALS AND DIMENSIONS OTHER THAN THOSE REQUIRED BY APPLICABLE STANDARDS REFERENCED ARE SUBJECT TO CHANGE WITHOUT NOTICE AT THE MANUFACTURER'S OPTION.

Class 150 and 1000 Stainless Steel Threaded Fittings

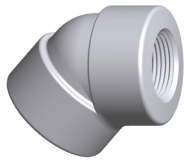


ASTM A351 304 Grade CF-8 or ASTM A351 316 Grade CF-8M, MSS SP-114, ASME B1.20.1

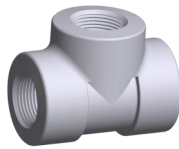
ASTM A182 F304/304L or F316/F316L, MSS SP-114, ASME B1.20.1



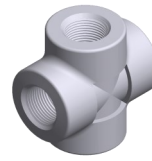
90° Threaded Elbows
1/8" to 4" Class 150



45° Threaded Elbows
1/8" to 4" Class 150



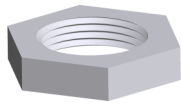
Threaded TEEs
1/8" to 4" Class 150



Threaded Crosses
1/8" to 4" Class 150



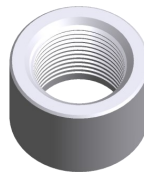
Threaded Street Elbows
1/8" to 4" Class 150



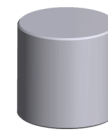
Locknuts
1/8" to 4" Class 150



Threaded Couplings
1/8" to 4" Class 1000



Threaded Half Couplings
1/8" to 4" Class 1000



Threaded Pipe Caps
1/8" to 2" Class 1000
2-1/2" to 4" Class 150



Threaded Hex Bushings
2-1/2" to 4" Class 150



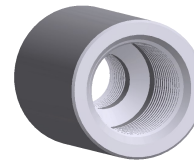
Threaded Hex Head Pipe Plugs
1/8" to 4" Class 1000



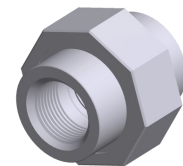
Threaded Square Head Pipe Plugs
1/8" to 4" Class 1000



Welding Spuds
1/4" to 4" Class 1000



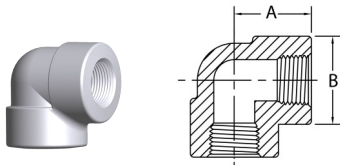
Threaded Reducing Couplings
1/4" to 4" Class 1000
2-1/2" to 4" Class 150



Threaded Pipe Unions
1/8" to 2" Class 1000
2-1/2" to 4" Class 150

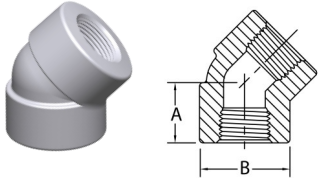
Class 150 Stainless Steel Threaded Fittings

ASTM A351 304 Grade CF-8 or ASTM A-351 316 Grade CF-8M, MSS SP-114, ASME B1.20.1



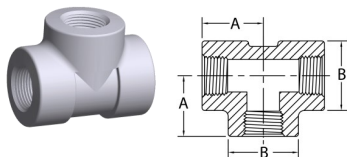
90 Degree Elbows

Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4
A	0.810	0.81	0.970	1.120	1.310	1.500	1.750	1.930	2.250	2.680	3.060	3.810
B	0.870	0.870	1.040	1.220	1.500	1.810	2.190	2.500	3.000	3.500	4.120	5.120
Wt. Ea.	0.13	0.10	0.14	0.28	0.45	0.88	1.25	1.68	2.68	5.10	7.00	10.80



45 Degree Elbows

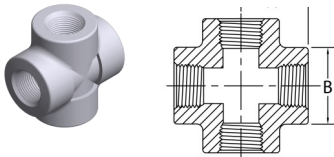
Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4
A	0.680	0.680	0.750	0.870	1.000	1.120	1.310	1.430	1.680	1.930	2.180	2.620
B	0.870	0.870	1.040	1.220	1.500	1.810	2.190	2.500	3.000	3.500	4.120	5.120
Wt. Ea.	0.12	0.16	0.11	0.24	0.36	0.66	0.98	1.52	2.36	4.08	5.76	10.10



Tees

Pipe Size	1/8 *	1/4 *	3/8 *	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4
A	0.810	0.810	0.870	1.120	1.310	1.600	1.750	1.930	2.250	2.680	3.060	3.810
B	0.970	0.970	1.040	1.220	1.500	1.810	2.190	2.500	3.000	3.500	4.120	5.120
Wt. Ea.	0.19	0.13	0.20	0.38	0.57	1.15	1.69	2.16	3.70	6.65	9.20	17.00

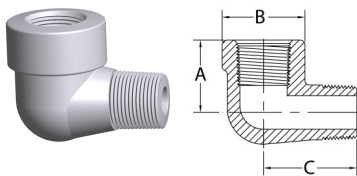
* 1/8, 1/4 and 3/8 are made from wrought material and conform to Class 1000



Crosses

Pipe Size	1/8 *	1/4 *	3/8 *	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4
A	0.840	0.840	0.970	1.120	1.310	1.500	1.750	1.930	2.250	2.680	3.060	3.810
B	0.880	0.880	1.040	1.220	1.500	1.810	2.190	2.500	3.000	3.500	4.120	5.120
Wt. Ea.	0.35	0.29	0.38	0.79	1.12	1.28	2.08	3.00	4.36	7.10	11.00	19.20

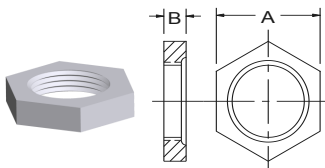
* 1/8, 1/4 and 3/8 are made from wrought material and conform to Class 1000



Street Elbows

Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4
A	0.750	0.810	0.970	1.120	1.310	1.500	1.750	1.930	2.250	2.680	3.060	3.810
B	0.750	0.870	1.010	1.210	1.460	1.770	2.150	2.430	2.960	3.310	4.000	5.060
C	1.060	1.180	1.430	1.620	1.870	2.120	2.500	2.750	3.250	3.870	4.500	5.680
Wt. Ea.	0.09	0.15	0.20	0.32	0.51	0.82	1.24	1.94	2.90	4.80	8.00	12.40

* 1/8, 1/4 and 3/8 are made from wrought material and conform to Class 1000



Locknuts

Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2 *	2-1/2 *	3 *	4 *
A	0.690	0.840	1.000	1.180	1.430	1.750	2.100	2.350	2.880	3.860	4.620	5.790
B	0.190	0.250	0.280	0.310	0.340	0.380	0.420	0.470	0.530	0.590	0.670	0.800
Wt. Ea.	0.03	0.03	0.05	0.06	0.10	0.14	0.21	0.34	0.44	0.80	1.30	2.00

Sizes m Sizes marked "*" are cast and conform to Class 150 and 1000

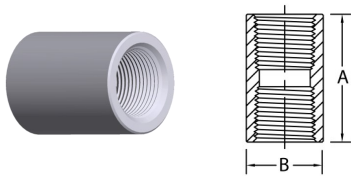
All sizes except those marked "*" are made from wrought material and conform to Class 1000

Class 1000 Stainless Steel Threaded Fittings

ASTM A182, F304/F304L or F316/316L, MSS SPP-114, ASME B1.20.1

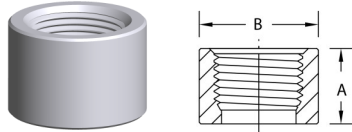


Note: All Class 1000 Fittings may be used in Class 150 applications



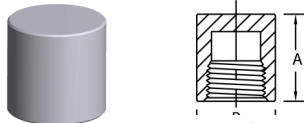
Couplings

Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4
A	1.010	1.125	1.188	1.500	1.562	1.750	2.015	2.135	2.515	2.885	3.195	3.695
B	0.562	0.750	0.875	1.062	1.312	1.625	1.875	2.188	2.750	3.375	4.125	5.125
Wt. Ea.	0.04	0.08	0.10	0.18	0.27	0.43	0.58	0.70	1.31	2.51	4.18	6.18



Half Couplings

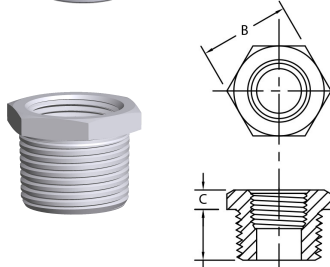
Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4
A	0.507	0.507	0.567	0.697	0.757	0.817	1.007	1.067	1.257	1.442	1.597	1.847
B	0.562	0.750	0.875	1.062	1.312	1.625	1.875	2.188	2.750	3.375	4.125	5.125
Wt. Ea.	0.02	0.04	0.05	0.09	0.13	0.21	0.29	0.35	0.65	1.25	2.09	3.09



Pipe Caps

Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2 *	3 *	4 *
A	0.688	0.688	0.812	0.937	1.062	1.312	1.625	1.625	1.750	2.125	2.375	2.625
B	0.562	0.750	0.875	1.062	1.312	1.625	1.875	2.188	2.75	3.625	4.312	5.500
Wt. Ea.	0.03	0.06	0.09	0.14	0.24	0.40	0.74	0.91	1.35	2.05	3.36	6.40

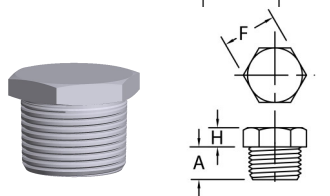
Sizes marked "*" are cast and conform to Class 150



Hex Bushings

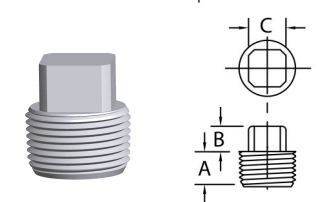
Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2 *	3 *	4 *
A										1.125	1.312	1.250
B										3.000	3.625	4.625
C										0.500	0.562	0.600
Wt. Ea.										2.37	3.50	8.31

Sizes marked "*" are cast and conform to Class 150



Pipe Plugs, Hex Head

Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4
A	0.437	0.593	0.593	0.781	0.781	0.968	1.000	1.000	1.062	1.125	1.375	1.562
F	0.437	0.625	0.687	0.875	1.062	1.375	1.750	2.000	2.500	3.000	3.625	4.625
H	0.250	0.250	0.310	0.310	0.380	0.380	0.560	0.620	0.690	0.500	0.562	0.687
Wt. Ea.	0.06	0.06	0.07	0.19	0.30	0.59	1.10	1.54	2.54	2.34	6.24	11.00

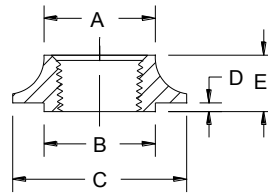


Pipe Plugs, Square Head

Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4
A	0.395	0.455	0.515	0.580	0.640	0.770	0.830	0.830	0.910	1.062	1.188	1.250
B	0.250	0.250	0.310	0.380	0.440	0.500	0.560	0.620	0.690	0.750	0.875	1.000
C	0.295	0.405	0.465	0.575	0.645	0.835	0.965	1.145	1.335	1.500	1.875	2.500
Wt. Ea.	0.02	0.03	0.06	0.13	0.19	0.31	0.56	0.88	1.50	2.25	2.87	7.18

Class 1000 Stainless Steel Threaded Fittings

ASTM A182, F304/F304L or F316/316L, MSS SPP-114, ASME B1.20.1



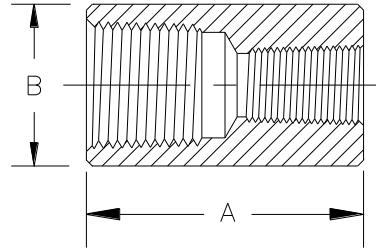
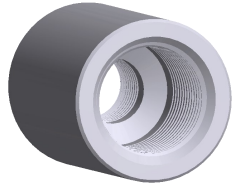
Welding Spuds

Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4
A	0.880	1.000	1.060	1.120	1.440	1.750	2.130	2.380	2.880	3.310	3.940	4.438	4.940
B	0.840	0.970	0.940	1.160	1.340	1.700	1.940	2.310	2.690	3.190	3.690	4.188	4.750
C	1.380	1.500	1.620	1.810	2.060	2.380	2.500	3.030	3.380	4.060	4.620	5.125	5.81
D	0.080	0.120	0.120	0.160	0.160	0.190	0.190	0.190	0.190	0.190	0.190	0.190	0.190
E	0.470	0.500	0.500	0.630	0.750	0.830	0.880	0.880	0.810	1.000	1.000	1.000	1.25
Wt. Ea.	0.08	0.10	0.11	0.14	0.25	0.33	0.49	0.55	0.63	1.18	1.30	1.60	1.95

Class 1000 Stainless Steel Threaded Reducing Couplings



ASTM A182 F304/304L or ASTM A182 F316/F316L, MSS SP-114, ASME B1.20.1



SIZE	A	B	Approx.
1/4 X 1/8	1.125	0.750	0.08
3/8 X 1/8	1.188	0.875	0.10
3/8 X 1/4			
1/2 X 1/8			
1/2 X 1/4	1.5	1.062	0.18
1/2 X 3/8			
3/4 X 1/8			
3/4 X 1/4	1.562	1.312	0.27
3/4 X 3/8			
3/4 X 1/2			
1 X 1/8	1.750	1.625	0.43
1 X 1/4			
1 X 3/8			
1 X 1/2			
1 X 3/4			
1-1/4 X 1/8			
1-1/4 X 1/4	2.015	1.875	0.58
1-1/4 X 3/8			
1-1/4 X 1/2			
1-1/4 X 3/4			
1-1/4 X 1			
1-1/2 X 1/8			
1-1/2 X 1/4	2.135	2.188	0.70
1-1/2 X 3/8			
1-1/2 X 1/2			
1-1/2 X 3/4			
1-1/2 X 1			
1-1/2 X 1-1/4			
2 X 1/8	2.515	2.750	1.31
2 X 1/4			
2 X 3/8			
2 X 1/2			
2 X 3/4			
2 X 1			
2 X 1-1/4			
2 X 1-1/2			

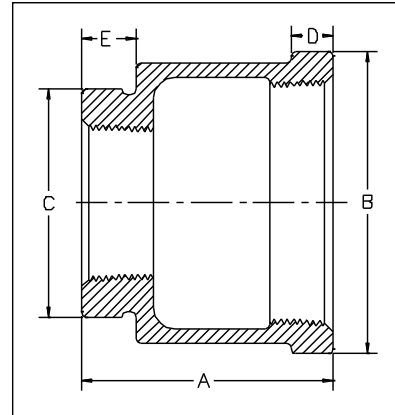
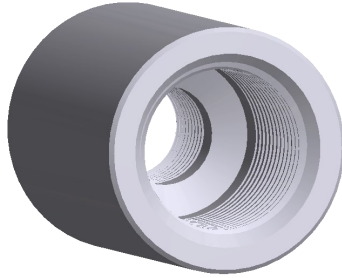
SIZE	A	B	Approx.
2-1/2 X 1/8	2.885	3.375	2.51
2-1/2 X 1/4			
2-1/2 X 3/8			
2-1/2 X 1/2			
2-1/2 X 3/4			
2-1/2 X 1			
2-1/2 X 1-1/4			
2-1/2 X 1-1/2			
2-1/2 X 2			
3 X 1/8			
3 X 1/4			
3 X 3/8			
3 X 1/2			
3 X 3/4			
3 X 1			
3 X 1-1/4			
3 X 1-1/2			
3 X 2			
3 X 2-1/2			
4 X 1/8	3.695	5.125	6.18
4 X 1/4			
4 X 3/8			
4 X 1/2			
4 X 3/4			
4 X 1			
4 X 1-1/4			
4 X 1-1/2			
4 X 2			
4 X 2-1/2			
4 X 3			
4 X 3-1/2			

All above sizes are made from wrought material and conform to Class 1000. May be used in Class 150 applications.

Class 150 Stainless Steel Threaded Reducing Couplings



ASTM A351 304 Grade CF-8 or ASTM A-351 316 Grade CF-8M, MSS SP-114, ASME B1.20.1



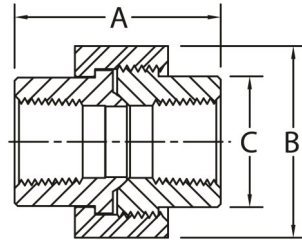
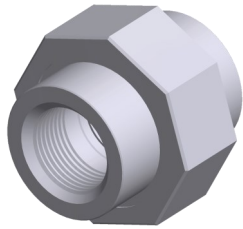
SIZE	A MIN	B MIN	C MIN	D MIN	E MIN	Approx. Wt.
2-1/2 X 1	3.25	3.31	2.96	0.48	0.42	3.50
2-1/2 X 1-1/4						3.40
2-1/2 X 1-1/2						3.28
2-1/2 X 2						2.96
3 X 1	3.68	4.00	3.31	0.55	0.48	5.80
3 X 1-1/4						5.70
3 X 1-1/2						5.65
3 X 2						5.28
3 X 2-1/2						5.15
4 X 1	4.38	5.06	4.00	0.66	0.55	N/A
4 X 1-1/4						N/A
4 X 1-1/2						N/A
4 X 2						10.0
4 X 2-1/2						10.0
4 X 3						9.10

Class 150 and Class 1000 Stainless Steel Threaded Unions



ASTM A351 304 Grade CF-8 or ASTM A351 316 Grade CF-8M, MSS SP-114, ASME B1.20.1

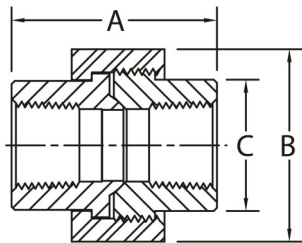
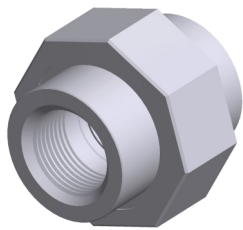
ASTM A182 F304/304L or F316/F316L, MSS SP-114, ASME B1.20.1



Class 150

ASTM A351 304 Grade CF-8 or ASTM A351 316 Grade CF-8M, MSS SP-114, ASME B1.20.1

Pipe Size	2-1/2	3	4
A	3.800	4.125	4.375
B	4.500	5.375	6.750
C	3.250	3.937	5.125
Wt. Ea.	5.30	8.56	12.70



Class 1000

ASTM A182 F304/F304L or F316/F316L, MSS SP-114, ASME B1.20.1

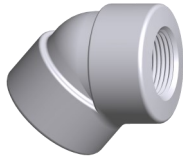
Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2
A	1.320	1.500	1.720	1.930	2.180	2.400	2.660	3.180	3.125
B	1.250	1.250	1.375	1.562	1.875	2.25	2.688	2.937	3.563
C	0.755	0.755	0.905	1.062	1.312	1.595	2.000	2.280	2.755
Wt. Ea.	0.24	0.20	0.20	0.38	0.58	0.90	1.40	2.02	

Stainless Steel Threaded Fittings

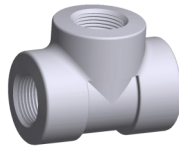
ASTM A182, F304/F304L or F316/316L, ASME B16.11, ASME B1.20.1



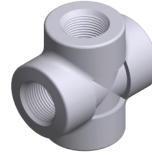
90° Threaded Elbows
1/8" to 2" Class 2000
1/8" to 2" Class 3000
1/8" to 2" Class 6000



45° Threaded Elbows
1/4" to 2" Class 2000
1/8" to 2" Class 3000
1/8" to 2" Class 6000



Threaded TEEs
1/8" to 2" Class 2000
1/8" to 2" Class 3000
1/8" to 2" Class 6000



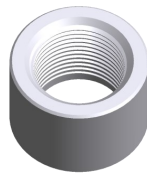
Threaded Crosses
1/8" to 2" Class 2000
1/8" to 2" Class 3000
1/8" to 1-1/4" Class 6000



Threaded Street Elbows
1/8" to 1" Class 3000



Threaded Couplings
1/8" to 4" Class 3000
1/8" to 4" Class 6000



Threaded Half Couplings
1/8" to 4" Class 3000
1/8" to 4" Class 6000



Threaded Pipe Caps
1/8" to 4" Class 3000
1/8" to 4" Class 6000



High Pressure Hex Bushings
1/4" to 4"



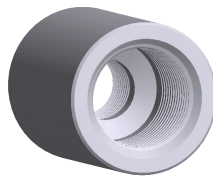
High Pressure Square Head Plugs
1/8" to 4"



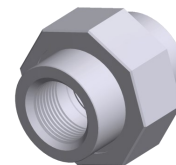
High Pressure Square Head Plugs
1/8" to 4"



High Pressure Hex Head Plugs
1/8" to 4"



Threaded Reducing Couplings
1/4" to 4" Class 3000
1/4" to 4" Class 6000



Threaded Pipe Unions
1/8" to 3" Class 3000

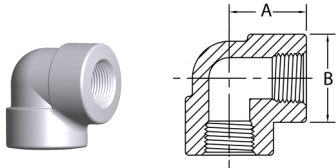
Stainless Steel Threaded Fittings



ASTM A182, F304/F304L or F316/316L, ASME B16.11, ASME B1.20.1

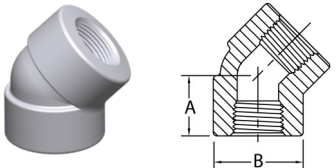
Class 2000 Stainless Steel Threaded Fittings

ASTM A182, F304/F304L or F316/316L, ASME B16.11, ASME B1.20.1



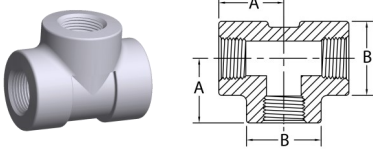
90 Degree Elbows

Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4
A	0.810	0.810	0.970	1.120	1.310	1.500	1.750	2.000	2.380			
B	0.880	0.880	1.000	1.310	1.500	1.810	2.190	2.440	2.970			
Wt. Ea.	0.22	0.18	0.30	0.52	0.72	1.16	1.70	2.42	3.78			



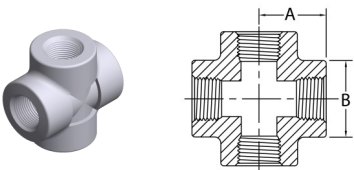
45 Degree Elbows

Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4
A	0.690	0.690	0.750	0.880	1.000	1.120	1.310	1.380	1.690			
B	0.880	0.880	1.000	1.310	1.500	1.810	2.190	2.440	2.970			
Wt. Ea.	0.18	0.16	0.21	1.42	0.56	0.96	0.96	1.56	2.60			



Tees

Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4
A	0.810	0.810	0.970	1.120	1.310	1.500	1.750	2.000	2.380			
B	0.880	0.880	1.000	1.310	1.500	1.810	2.190	2.440	2.970			
Wt. Ea.	0.28	0.22	0.30	0.66	0.90	1.44	2.00	2.72	4.28			



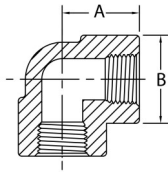
Crosses

Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4
A	0.970	0.970	0.970	1.120	1.310	1.500	1.750	2.000	2.380			
B	1.000	1.000	1.000	1.310	1.500	1.810	2.190	2.440	2.970			
Wt. Ea.	0.53	0.51	0.50	1.30	2.30	3.00	2.48	3.40	5.26			

Class 3000 Forged Stainless Steel Threaded Fittings

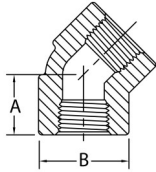
ASTM A182, F304/F304L or F316/316L, ASME B16.11, ASME B1.20.1

CAMCO



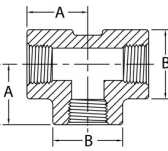
90 Degree Elbows

Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4
A	0.810	0.970	1.120	1.310	1.500	1.750	2.000	2.380	2.500			
B	0.880	1.000	1.310	1.500	1.810	2.190	2.440	2.970	3.310			
Wt. Ea.	0.22	0.38	0.66	0.90	1.46	2.58	3.14	5.80	6.04			



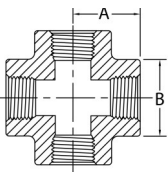
45 Degree Elbows

Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4
A	0.690	0.750	0.880	1.000	1.120	1.310	1.380	1.690	1.720			
B	0.880	1.000	1.310	1.500	1.810	2.190	2.440	2.970	3.310			
Wt. Ea.	0.18	0.26	0.54	0.75	1.18	2.03	2.13	4.05	4.25			



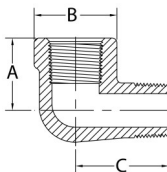
Tees

Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4
A	0.810	0.970	1.120	1.310	1.500	1.750	2.000	2.380	2.500			
B	0.880	1.000	1.310	1.500	1.810	2.190	2.440	2.970	3.310			
Wt. Ea.	0.28	0.41	0.81	1.20	1.94	3.04	3.70	6.95	7.35			



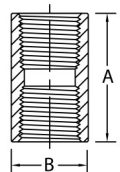
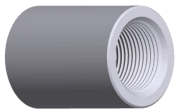
Crosses

Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4
A	0.970	0.970	1.120	1.310	1.500	1.750	2.000	2.380	2.500			
B	1.000	1.000	1.310	1.500	1.810	2.190	2.440	2.970	3.310			
Wt. Ea.	0.51	0.50	0.96	1.43	2.30	3.73	4.40	8.13	8.31			



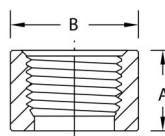
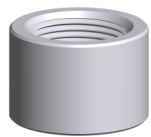
Street Elbows

Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4
A	0.750	0.880	1.000	1.120	1.380	1.750						
B	0.750	1.000	1.250	1.500	1.750	2.000						
C	1.000	1.250	1.500	1.620	1.880	2.250						
Wt. Ea.	0.20	0.25	0.36	0.53	0.85	1.38						



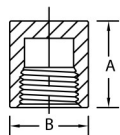
Couplings

Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4
A	1.250	1.375	1.500	1.875	2.000	2.375	2.625	3.125	3.375	3.625	4.250	4.750
B	0.750	0.750	0.875	1.125	1.375	1.750	2.250	2.500	3.000	3.625	4.250	5.500
Wt. Ea.	0.11	0.10	0.13	0.28	0.42	0.85	1.50	2.19	3.02	4.56	6.79	12.00



Half Couplings

Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4
A	0.625	0.688	0.750	0.938	1.000	1.188	1.312	1.562	1.688	1.812	2.125	2.375
B	0.750	0.750	0.875	1.125	1.375	1.750	2.250	2.500	3.000	3.625	4.250	5.500
Wt. Ea.	0.06	0.05	0.06	0.14	0.21	0.43	0.75	1.09	1.57	2.28	3.40	6.00



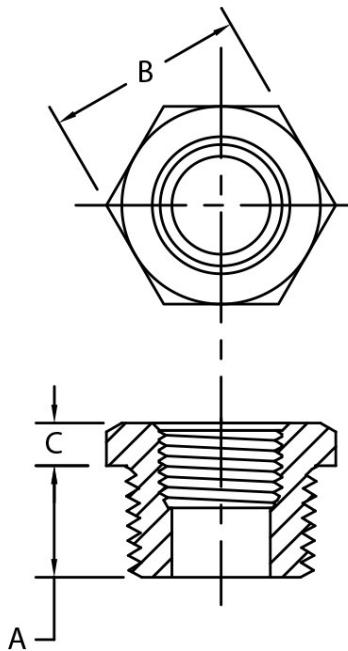
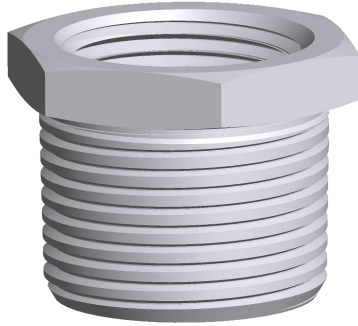
Pipe Caps

Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4
A	0.812	1.062	1.062	1.312	1.500	1.687	1.781	1.937	2.250	2.375	2.562	2.687
B	0.750	0.750	0.875	1.125	1.375	1.750	2.250	2.500	3.000	3.625	4.250	5.500
Wt. Ea.	0.08	0.09	0.11	0.24	0.39	0.72	1.32	1.54	2.34	4.05	5.84	10.08

High Pressure Stainless Steel Hex Bushings Threaded



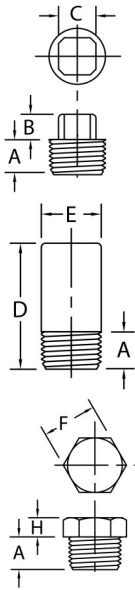
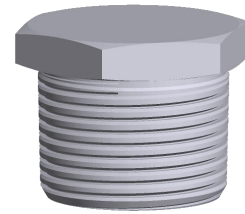
ASTM A182, F304/F304L or F316/316L, ASME B16.11, MSS SP-114, ASME B1.20.1



Pipe Size	A	B	C	Approx Weight			
1/4 x 1/8	.44	.62	.12	0.02			
3/8 x 1/8	.50	.69	.16	0.05			
3/8 x 1/4				0.03			
1/2 x 1/8	.56	.88	.19	0.11			
1/2 x 1/4				0.09			
1/2 x 3/8				0.06			
3/4 x 1/8	.62	1.06	.22	0.21			
3/4 x 1/4				0.18			
3/4 x 3/8				0.15			
3/4 x 1/2				0.10			
1 x 1/8	.75	1.38	.25	0.36			
1 x 1/4				0.33			
1 x 3/8				0.30			
1 x 1/2				0.27			
1 x 3/4				0.19			
1-1/4 x 1/8				.81	1.75	.28	0.79
1-1/4 x 1/4	0.76						
1-1/4 x 3/8	0.73						
1-1/4 x 1/2	0.68						
1-1/4 x 3/4	0.64						
1-1/4 x 1	0.60						
1-1/2 x 1/8	.81	2.00	.31				1.08
1-1/2 x 1/4							1.01
1-1/2 x 3/8				0.83			
1-1/2 x 1/2				0.93			
1-1/2 x 3/4				0.84			
1-1/2 x 1				0.80			
1-1/2 x 1-1/4				0.75			
2 x 1/8				.88	2.50	.34	1.88
2 x 1/4							1.84
2 x 3/8							1.80
2 x 1/2	1.74						
2 x 3/4	1.63						
2 x 1	1.55						
2 x 1-1/4	1.50						
2 x 1-1/2	1.45						
2-1/2 x 1/8	1.06	3.00	.38				
2-1/2 x 1/4				3.75			
2-1/2 x 3/8				3.50			
2-1/2 x 1/2				3.25			
2-1/2 x 3/4				3.00			
2-1/2 x 1				2.75			
2-1/2 x 1-1/4				2.25			
2-1/2 x 1-1/2				2.00			
2-1/2 x 2				1.13			
3 x 1/8				1.12	3.50	.41	
3 x 1/4	5.50						
3 x 3/8							
3 x 1/2	5.00						
3 x 3/4	4.75						
3 x 1	4.50						
3 x 1-1/4	4.13						
3 x 1-1/2	3.63						
3 x 2	2.75						
3 x 2-1/2	2.13						
4 x 1/8	1.25	4.62	.50				
4 x 1/4				9.00			
4 x 3/8							
4 x 1/2				9.00			
4 x 3/4				9.00			
4 x 1				9.00			
4 x 1-1/4				9.00			
4 x 1-1/2				8.12			
4 x 2				7.00			
4 x 2-1/2				6.75			
4 x 3	4.50						

Stainless Steel Threaded Plugs

ASTM A182, F304/F304L or F316/316L, ASME B16.11, ASME B1.20.1



Square Head Plugs

Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4
A	0.395	0.455	0.515	0.580	0.640	0.770	0.830	0.830	0.910	1.062	1.188	1.250
B	0.250	0.250	0.310	0.380	0.440	0.500	0.560	0.620	0.690	0.750	0.875	1.000
C	0.295	0.405	0.465	0.575	0.645	0.835	0.965	1.145	1.335	1.500	1.875	2.500
Wt. Ea.	0.02	0.03	0.06	0.13	0.19	0.31	0.56	0.88	1.50	2.25	2.87	7.18

Round Head Plugs

Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4
A	0.380	0.562	0.562	0.812	0.812	0.937	0.937	1.000	1.062	1.500	1.562	1.625
D	1.380	1.620	1.620	1.750	1.750	2.000	2.000	2.000	2.500	2.750	2.750	3.000
E	0.437	0.562	0.750	0.875	1.062	1.312	1.750	2.000	2.375	3.000	3.625	4.625
Wt. Ea.	0.06	0.11	0.20	0.30	0.44	0.77	1.27	1.78	3.48	5.50	8.04	14.28

Hex Head Plugs

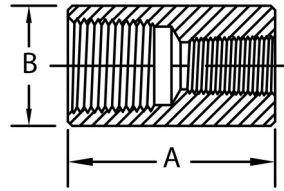
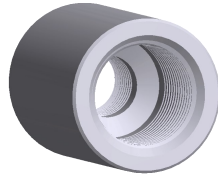
Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	*2-1/2	*3	*4
A	0.437	0.593	0.593	0.781	0.781	0.968	1.000	1.000	1.062	1.125	1.375	1.562
F	0.437	0.625	0.687	0.875	1.062	1.375	1.750	2.000	2.500	3.000	3.625	4.625
H	0.250	0.250	0.310	0.310	0.380	0.380	0.560	0.620	0.690	0.500	0.562	0.687
Wt. Ea.	0.06	0.06	0.07	0.19	0.30	0.59	1.10	1.54	2.54	2.34	6.24	11.00

* 2 1/2, 3 and 4 are not to ASME B16.11

Class 3000 Stainless Steel Threaded Reducing Couplings

ASTM A182, F304/F304L or F316/316L, ASME B16.11, ASME B1.20.1

CAMCO

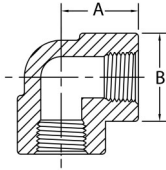


SIZE	A	B	Approx.			
1/4 X 1/8	1.375	0.750	0.1			
3/8 X 1/8	1.500	0.875	0.13			
3/8 X 1/4						
1/2 X 1/8	1.875	1.125	0.28			
1/2 X 1/4						
1/2 X 3/8						
3/4 X 1/8						
3/4 X 1/4	2.000	1.375	0.42			
3/4 X 3/8						
3/4 X 1/2						
1 X 1/8						
1 X 1/4	2.375	1.750	0.85			
1 X 3/8						
1 X 1/2						
1 X 3/4						
1-1/4 X 1/8				2.625	2.250	1.50
1-1/4 X 1/4						
1-1/4 X 3/8						
1-1/4 X 1/2						
1-1/4 X 3/4						
1-1/4 X 1						
1-1/2 X 1/8	3.125	2.500	2.19			
1-1/2 X 1/4						
1-1/2 X 3/8						
1-1/2 X 1/2						
1-1/2 X 3/4						
1-1/2 X 1						
1-1/2 X 1-1/4						
2 X 1/8				3.375	3.000	3.02
2 X 1/4						
2 X 3/8						
2 X 1/2						
2 X 3/4						
2 X 1						
2 X 1-1/4						
2 X 1-1/2						

SIZE	A	B	Approx.
2-1/2 X 1/8	3.625	3.625	4.56
2-1/2 X 1/4			
2-1/2 X 3/8			
2-1/2 X 1/2			
2-1/2 X 3/4			
2-1/2 X 1			
2-1/2 X 1-1/4			
2-1/2 X 1-1/2			
2-1/2 X 2			
3 X 1/8			
3 X 1/4			
3 X 3/8			
3 X 1/2			
3 X 3/4			
3 X 1			
3 X 1-1/4			
3 X 1-1/2			
3 X 2			
3 X 2-1/2			
4 X 1/8	4.750	5.500	12.00
4 X 1/4			
4 X 3/8			
4 X 1/2			
4 X 3/4			
4 X 1			
4 X 1-1/4			
4 X 1-1/2			
4 X 2			
4 X 2-1/2			
4 X 3			
4 X 3-1/2			

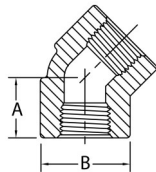
Class 6000 Stainless Steel Threaded Fittings

ASTM A182, F304/F304L or F316/316L, ASME B16.11, ASME B1.20.1



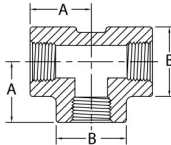
90 Degree Elbows

Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4
A	0.970	1.120	1.310	1.500	1.750	2.000	2.380	2.500	3.250			
B	1.000	1.310	1.500	1.810	2.190	2.440	2.970	3.310	4.000			
Wt. Ea.	0.40	0.72	1.06	1.76	2.86	3.92	5.88	7.06	10.18			



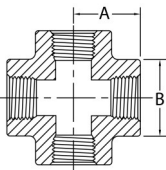
45 Degree Elbows

Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4
A	0.750	0.880	1.000	1.120	1.310	1.380	1.690	1.720	2.060			
B	1.000	1.310	1.500	1.810	2.190	2.440	2.970	3.310	4.000			
Wt. Ea.	0.34	0.59	0.85	1.34	2.50	2.88	5.18	5.75	12.21			



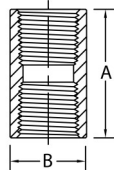
Tees

Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4
A	0.970	1.120	1.310	1.500	1.750	2.000	2.380	2.500	3.250			
B	1.000	1.310	1.500	1.810	2.190	2.440	2.970	3.310	4.000			
Wt. Ea.	0.44	0.92	1.38	2.16	3.00	4.20	7.75	8.00	17.50			



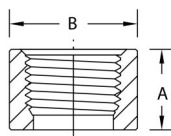
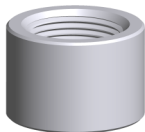
Crosses

Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4
A	0.970	1.120	1.310	1.500	1.750	2.000	2.380					
B	1.000	1.310	1.500	1.810	2.190	2.440	2.970					
Wt. Ea.	0.75	1.12	1.55	2.30	4.21	4.83	10.00					



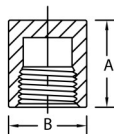
Couplings

Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4
A	1.250	1.375	1.500	1.875	2.000	2.375	2.625	3.125	3.375	3.625	4.250	4.750
B	0.875	1.000	1.250	1.500	1.750	2.250	2.500	3.000	3.625	4.250	5.000	6.250
Wt. Ea.	0.18	0.14	0.40	0.69	0.90	1.88	2.31	4.00	6.20	9.25	13.44	22.13



Half Couplings

Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4
A	0.625	0.688	0.750	0.938	1.000	1.188	1.312	1.562	1.688	1.812	2.125	2.375
B	0.875	1.000	1.250	1.500	1.750	2.250	2.500	3.000	3.625	4.250	5.000	6.250
Wt. Ea.	0.09	0.07	0.20	0.35	0.45	0.94	1.16	2.00	3.75	4.62	6.72	9.50

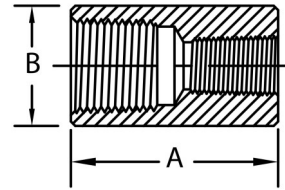
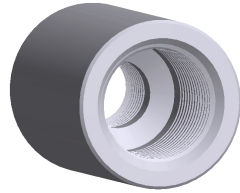


Pipe Caps

Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4
A	0.875	1.125	1.125	1.375	1.562	1.750	1.844	1.968	2.219	2.531	2.750	3.062
B	0.875	1.000	1.250	1.500	1.750	2.250	2.500	3.000	3.625	4.250	5.000	6.250
Wt. Ea.	0.13	0.13	0.19	0.31	0.44	0.75	1.31	1.69	3.25	5.60	6.00	13.50

Class 6000 Stainless Steel Threaded Reducing Couplings

ASTM A182, F304/F304L or F316/316L, ASME B16.11, ASME B1.20.1



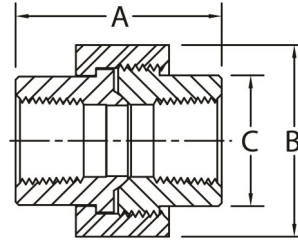
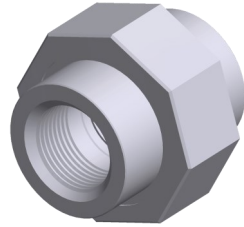
Pipe Size	A	B	Approx. Weight
1/4 X 1/8	1.375	1.062	0.14
3/8 X 1/8	1.500	1.250	0.40
3/8 X 1/4			
1/2 X 1/8			
1/2 X 1/4	1.875	1.500	0.69
1/2 X 3/8	2.000	1.750	0.90
3/4 X 1/8			
3/4 X 1/4			
3/4 X 3/8			
3/4 X 1/2			
1 X 1/8	2.375	2.250	1.88
1 X 1/4			
1 X 3/8			
1 X 1/2			
1 X 3/4			
1-1/4 X 1/8	2.625	2.500	2.31
1-1/4 X 1/4			
1-1/4 X 3/8			
1-1/4 X 1/2			
1-1/4 X 3/4			
1/1/4 X 1	3.125	3.000	4.00
1-1/2 X 1/8			
1-1/2 X 1/4			
1-1/2 X 3/8			
1-1/2 X 1/2			
1-1/2 X 3/4	3.375	3.625	7.50
1-1/2 X 1			
1-1/2 X 1-1/4			
2 X 1/8			
2 X 1/4			
2 X 3/8			
2 X 1/2			
2 X 3/4			
2 X 1			
2 X 1-1/4			
2 X 1-1/2			

Pipe Size	A	B	Approx. Weight
2-1/2 X 1/8	3.625	4.250	9.25
2-1/2 X 1/4			
2-1/2 X 3/8			
2-1/2 X 1/2			
2-1/2 X 3/4			
2-1/2 X 1			
2-1/2 X 1-1/4			
2-1/2 X 1-1/2	4.250	5.000	13.44
2-1/2 X 2			
3 X 1/8			
3 X 1/4			
3 X 3/8			
3 X 1/2			
3 X 3/4			
3 X 1	4.750	6.250	22.13
3 X 1-1/4			
3 X 1-1/2			
3 X 2			
3 X 2-1/2			
4 X 1/8			
4 X 1/4			
4 X 3/8			
4 X 1/2			
4 X 3/4			
4 X 1			
4 X 1-1/4			
4 X 1-1/2			
4 X 2			
4 X 2-1/2			
4 X 3			
4 X 3-1/2			

Class 3000 Stainless Steel Threaded Unions X-Series



ASTM A182 F304/F304L or ASTM F316/F316L, MSS SP-83, AAR M-404-42, ASME B1.20.1



Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3
A	1.630	1.630	1.810	1.930	2.240	2.440	2.800	3.010	3.390	4.030	4.290
B	1.375	1.375	1.594	1.812	2.187	2.546	3.046	3.406	4.062	4.828	5.687
C	0.859	0.859	1.015	1.234	1.468	1.797	2.172	2.468	3.032	3.640	4.390
Wt. Ea.	0.34	0.34	0.49	0.68	1.19	1.68	2.54	3.33	5.30	8.60	12.70

Class 150 and 1000 Stainless Steel Socket Weld Fittings



ASTM A351 304 Grade CF-8 or ASTM A351 316 Grade CF-8M, MSS SP-114, ASME B1.20.1

ASTM A182 F304/304L or F316/F316L, MSS SP-114, ASME B1.20.1



90° Socket Weld Elbows
1/4" to 2" Class 150



45° Socket Weld Elbows
1/4" to 2" Class 150



Socket Weld TEEs
1/4" to 2" Class 150



Socket Weld Crosses
1/2" to 4" Class 150



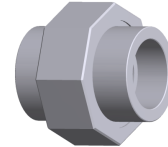
Socket Weld Couplings
1/2" to 2" Class 1000



Socket Weld Pipe Caps
1/4" to 2" Class 1000



Socket Weld Reducing Couplings
1/2" to 2" Class 1000



Socket Weld Unions
1/8" to 2" Class 1000

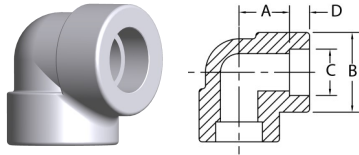
Class 150 Stainless Steel Socket Weld Fittings

ASTM A351 304 Grade CF-8 or ASTM A-351 316 Grade CF-8M, MSS SP-114, ASME B1.20.1



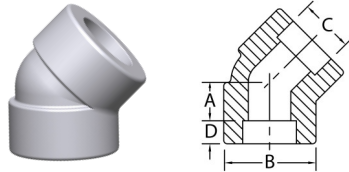
Common Dimensions

Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2
C	0.420/ 0.440	0.555/ 0.575	0.690/ 0.710	0.855/ 0.875	1.065/ 1.085	1.330/ 1.350	1.675/ 1.695	1.915/ 1.935	2.406/ 2.426
D	0.380	0.380	0.380	0.380	0.500	0.500	0.500	0.500	0.620



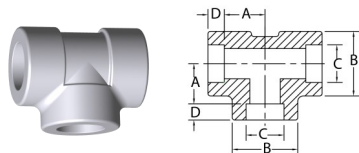
90 Degree Elbows

Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2
A	0.440	0.440	0.530	0.620	0.750	0.880	1.060	1.250	1.500
B	0.880	0.880	1.040	1.310	1.500	1.810	2.250	2.500	3.030
Wt. Ea.	0.16	0.16	0.24	0.48	0.67	1.03	1.48	1.99	3.00



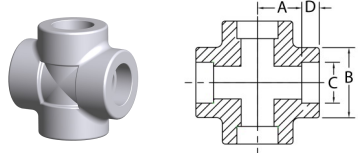
45 Degree Elbows

Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2
A	0.310	0.310	0.310	0.440	0.500	0.560	0.690	0.810	1.000
B	0.880	0.880	1.040	1.310	1.500	1.810	2.250	2.500	3.030
Wt. Ea.	0.11	0.11	0.19	0.41	0.55	0.84	1.34	1.56	2.50



Tees

Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2
A	0.440	0.440	0.530	0.620	0.750	0.880	1.060	1.250	1.500
B	0.880	0.880	1.040	1.310	1.500	1.810	2.250	2.500	3.030
Wt. Ea.	0.23	0.22	0.31	0.68	0.85	1.34	2.05	2.73	4.21



Crosses

Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2
A	0.530	0.530	0.530	0.620	0.750	0.880	1.060	1.250	1.500
B	1.030	1.030	1.030	1.310	1.500	1.810	2.250	2.500	3.030
Wt. Ea.	0.53	0.51	0.50	0.83	1.03	1.68	2.56	3.46	5.60

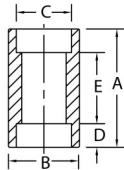
Class 1000 Stainless Steel Socket Weld Fittings

ASTM A182, F304/F304L or F316/316L, MSS SPP-114, ASME B1.20.1



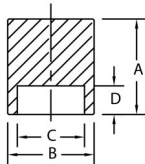
Common Dimensions

Pipe Size	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2
C	0.555/ 0.575	0.690/ 0.710	0.855/ 0.875	1.065/ 1.085	1.330/ 1.350	1.675/ 1.695	1.915/ 1.935	2.406/ 2.426
D	0.380	0.380	0.380	0.500	0.500	0.500	0.500	0.620



Couplings

Pipe Size	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2
A			1.375	1.500	1.625	2.000	2.125	2.500
B			1.062	1.312	1.625	1.938	2.188	2.750
E			0.585	0.470	0.595	0.970	1.095	1.230
Wt. Ea.			0.18	0.27	0.43	0.68	0.70	1.31



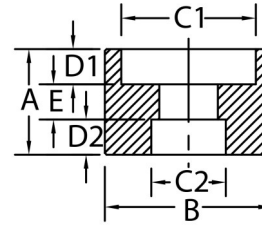
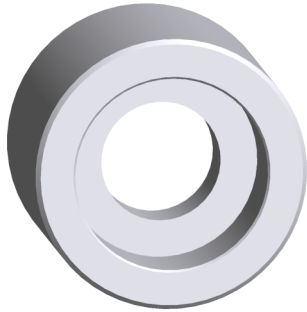
Pipe Caps

Pipe Size	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2
A	0.575	0.585	0.605	0.665	0.755	0.835	0.855	0.960
B	0.750	0.875	1.062	1.312	1.625	1.875	2.188	2.750
Wt. Ea.	0.15	0.16	0.18	0.22	0.40	0.74	0.90	1.19

Class 1000 Stainless Steel Socket Weld Reducing Couplings



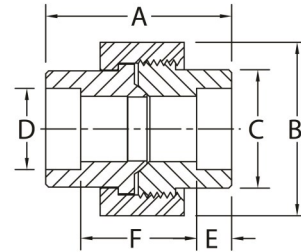
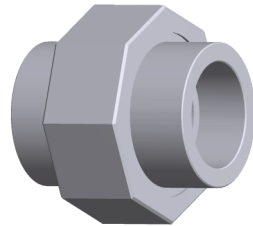
ASTM A182, F304/F304L or F316/316L, MSS SPP-114, ASME B1.20.1



SIZE	A	B	C1	C2	D1	D2	E REF	Approx. Weight
1/2 X 1/8				.420/.430				0.26
1/2 X 1/4	1.375	1.062	.855/.875	.555/.575	0.395	0.395	0.585	0.26
1/2 X 3/8				.690/.710				0.26
3/4 X 1/8				.420/.430				0.41
3/4 X 1/2	1.500	1.312	1.065/1.085	.855/.875	0.515	0.515	0.470	0.41
1 X 1/8				.420/.430				0.65
1 X 1/4				.555/.575				0.65
1 X 1/2	1.625	1.625	1.330/1.350	.855/.875	0.515	0.515	0.595	0.65
1 X 3/4				1.065/1.085				0.65
1-1/4 X 1/2				.855/.875				0.82
1/1/4 X 1	2.000	1.938	1.675/1.695	1.330/1.350	0.515	0.515	0.970	0.82
1-1/2 X 1/2				.855/.875				0.92
1-1/2 X 3/4				1.065/1.085				0.92
1-1/2 X 1	2.125	2.188	1.915/1.935	1.330/1.350	0.515	0.515	1.095	0.92
1-1/2 X 1-1/4				1.675/1.695				0.92
2 X 1/2				.855/.875				1.62
2 X 3/4				1.065/1.085				1.62
2 X 1	2.500	2.750	2.406/2.426	1.330/1.350	0.635	0.635	1.230	1.62
2 X 1-1/4				1.675/1.695				1.62
2 X 1-1/2				1.915/1.935				1.62

Class 1000 Stainless Steel Socket Weld Unions

ASTM A182, F304/F304L or F316/316L, MSS SPP-114



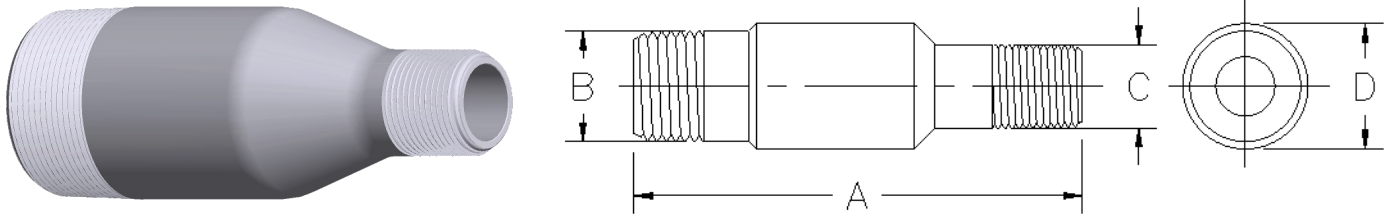
Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2
A	1.320	1.500	1.720	1.930	2.180	2.400	2.660	3.180	3.125
B	1.250	1.250	1.375	1.562	1.875	2.250	2.688	2.937	3.563
C	0.755	0.755	0.905	1.062	1.312	1.595	2.000	2.280	2.755
D	.420/ .440	.555/ .575	.690/ .710	.855/ .875	1.065/ 1.085	1.330/ 1.350	1.675/ 1.695	1.915/ 1.935	2.406/ 2.426
E	0.380	0.380	0.380	0.380	0.500	0.500	0.500	0.500	0.620
F	0.560	0.740	0.960	1.170	1.180	1.400	1.660	2.180	1.885
Wt. Ea.	0.24	0.20	0.26	0.36	0.56	0.90	1.35	2.05	3.05

Stainless Steel Swage Nipples



Threaded Both Ends

ASTM A234, F304/F304L or F316/316L, MSS SP-95



Combination Of End Styles Available

Pipe Size	A	B	C	D	Approx. Wt.			
					Std	XH	160	XXH
1/4 X 1/8	2.250	0.540	0.405	0.562				
3/8 X 1/8	2.500	0.675	0.405	0.750				
3/8 X 1/4			0.540					
1/2 X 1/4	2.750	0.840	0.540	0.875				
1/2 X 3/8			0.675					
3/4 X 1/4			0.540					
3/4 X 3/8	3.000	1.027	0.675	1.062				
3/4 X 1/2			0.840					
1 X 1/4			0.540					
1 X 3/8			0.675					
1 X 1/2	3.500	1.315	0.840	1.315				
1 X 3/4			1.050					
1-1/4 X 1/4			0.540	1.660				
1-1/4 X 3/8			0.675					
1-1/4 X 1/2	4.000	1.660	0.840	1.750				
1-1/4 X 3/4			1.050					
1-1/4 X 1			1.315					
1-1/2 X 3/8			0.675	1.900				
1-1/2 X 1/2			0.840					
1-1/2 X 3/4	4.500	1.900	1.050	2.000				
1-1/2 X 1			1.315					
1-1/2 X 1-1/4			1.660					
2 X 1/4			0.540					
2 X 3/8			0.675					
2 X 1/2			0.840					
2 X 3/4	6.500	2.375	1.050	2.375				
2 X 1			1.315					
2 X 1-1/4			1.660					
2 X 1-1/2			1.900					

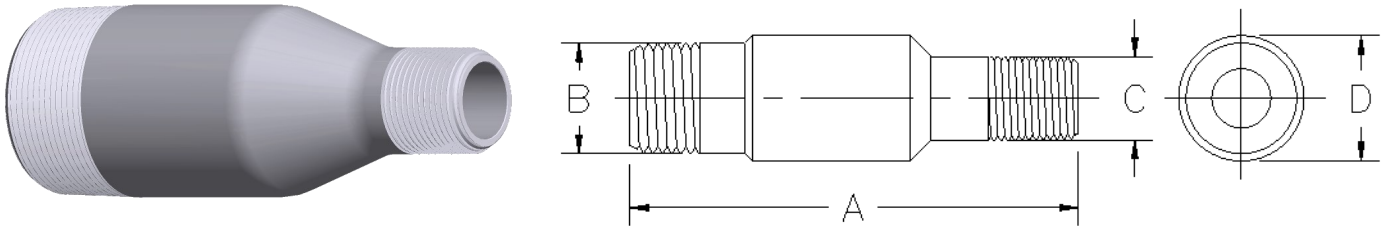
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Stainless Steel Swage Nipples



Threaded Both Ends

ASTM A234, F304/F304L or F316/316L, MSS SP-95



Combination Of End Styles Available

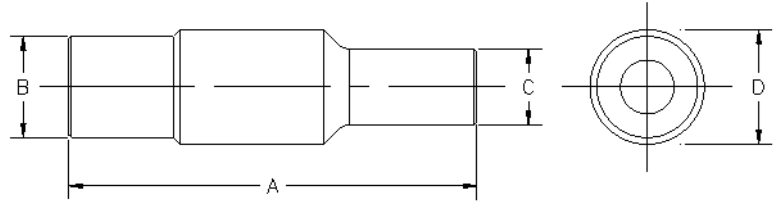
Pipe Size	A	B	C	D	Approx. Wt.			
					Std	XH	160	XXH
2-1/2 X 1/2			0.840					
2-1/2 X 3/4			1.050					
2-1/2 X 1	7.000	2.875	1.315	2.875				
2-1/2 X 1-1/4			1.660					
2-1/2 X 1-1/2			1.900					
2-1/2 X 2			2.375					
3 X 1/2			0.840					
3 X 3/4			1.050					
3 X 1			1.315					
3 X 1-1/4	8.000	3.500	1.660	3.500				
3 X 1-1/2			1.900					
3 X 1			1.315					
3 X 1-1/4	8.000	3.500	1.660	3.500				
3 X 1-1/2			1.900					
3 X 2			2.375					
3 X 2-1/2			2.875					
3-1/2 X 1/2			0.840					
3-1/2 X 3/4			1.050					
3-1/2 X 1			1.315					
3-1/2 X 1-1/4	8.000	4.000	1.660	4.000				
3-1/2 X 1-1/2			1.900					
3-1/2 X 2			2.375					
3-1/2 X 2-1/2			2.875					
3-1/2 X 3			3.500					
4 X 1/2			0.840					
4 X 3/4			1.050					
4 X 1			1.315					
4 X 1-1/4			1.660					
4 X 1-1/2	9.000	4.500	1.900	4.500				
4 X 2			2.375					
4 X 2-1/2			2.875					
4 X 3			3.500					
4 X 3-1/2			4.000					

Stainless Steel Swage Nipples



Plain Both Ends

ASTM A234, F304/F304L or F316/316L, MSS SP-95



Combination Of End Styles Available

Pipe Size	A	B	C	D	Approx. Wt.			
					Std	XH	160	XXH
3/8 X 1/8	2.500	0.675	0.405	0.750				
3/8 X 1/4			0.540					
1/2 X 1/4	2.750	0.840	0.540	0.875				
1/2 X 3/8			0.675					
3/4 X 1/4			0.540					
3/4 X 3/8	3.000	1.050	0.675	1.062				
3/4 X 1/2			0.840					
1 X 1/2	3.500	1.315	0.840	1.315				
1 X 3/4			1.050					
1-1/4 X 3/8			0.675					
1-1/4 X 1/2	4.000	1.660	0.840	1.750				
1-1/4 X 3/4			1.050					
1-1/4 X 1			1.315					
1-1/2 X 1/2			0.840					
1-1/2 X 3/4	4.500	1.900	1.050	2.000				
1-1/2 X 1			1.315					
1-1/2 X 1-1/4			1.660					
2 X 1/2			0.840					
2 X 3/4			1.050					
2 X 1	6.500	2.375	1.315	2.375				
2 X 1-1/4			1.660					
2 X 1-1/2			1.900					
2-1/2 X 1/2			0.840					
2-1/2 X 3/4			1.050					
2-1/2 X 1	7.000	2.875	1.315	2.875				
2-1/2 X 1-1/4			1.660					
2-1/2 X 1-1/2			1.900					
2-1/2 X 2			2.375					

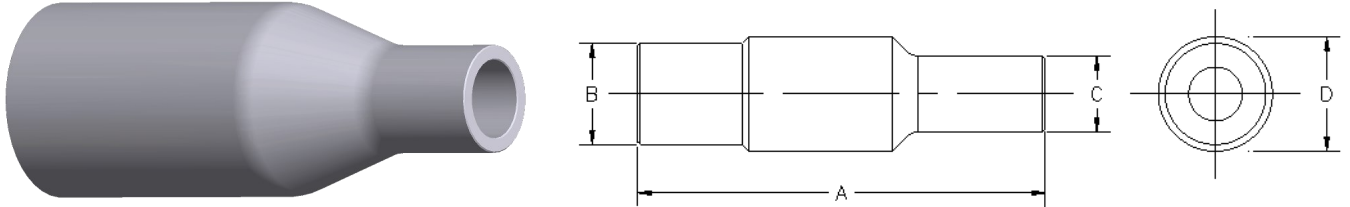
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Stainless Steel Swage Nipples



Plain Both Ends

ASTM A234, F304/F304L or F316/316L, MSS SP-95



Combination Of End Styles Available

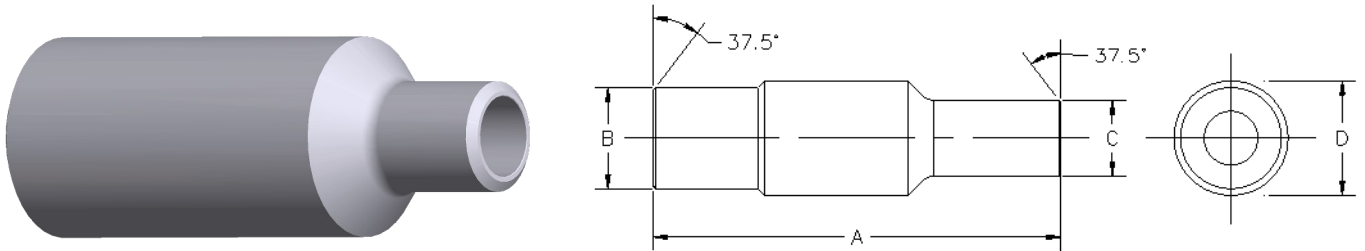
Pipe Size	A	B	C	D	Approx. Wt.			
					Std	XH	160	XXH
3 X 1/2			0.840					
3 X 3/4			1.050					
3 X 1			1.315					
3 X 1-1/4	8.000	3.500	1.660	3.500				
3 X 1-1/2			1.900					
3 X 1			1.315					
3 X 1-1/4	8.000	3.500	1.660	3.500				
3 X 1-1/2			1.900					
3 X 2			2.375					
3 X 2-1/2			2.875					
3-1/2 X 1/2			0.840					
3-1/2 X 3/4			1.050					
3-1/2 X 1			1.315					
3-1/2 X 1-1/4	8.000	4.000	1.660	4.000				
3-1/2 X 1-1/2			1.900					
3-1/2 X 2			2.375					
3-1/2 X 2-1/2			2.875					
3-1/2 X 3			3.500					
4 X 1/2			0.840					
4 X 3/4			1.050					
4 X 1			1.315					
4 X 1-1/4			1.660					
4 X 1-1/2	9.000	4.500	1.900	4.500				
4 X 2			2.375					
4 X 2-1/2			2.875					
4 X 3			3.500					
4 X 3-1/2			4.000					

Stainless Steel Swage Nipples

Beveled Both Ends



ASTM A234, F304/F304L or F316/316L, MSS SP-95



Combination Of End Styles Available

Pipe Size	A	B	C	D	Approx. Wt.			
					Std	XH	160	XXH
1 X 3/8			0.675					
1 X 1/2	3.500	1.315	0.840	1.315				
1 X 3/4			1.050					
1-1/4 X 1/2			0.840					
1-1/4 X 3/4	4.000	1.660	1.050	1.750				
1-1/4 X 1			1.315					
1-1/2 X 1/2			0.840					
1-1/2 X 3/4	4.500	1.900	1.050	2.000				
1-1/2 X 1			1.315					
1-1/2 X 1-1/4			1.660					
2 X 1/2			0.840					
2 X 3/4			1.050					
2 X 1	6.500	2.375	1.315	2.375				
2 X 1-1/4			1.660					
2 X 1-1/2			1.900					
2-1/2 X 1/2			0.840					
2-1/2 X 3/4			1.050					
2-1/2 X 1	7.000	2.875	1.315	2.875				
2-1/2 X 1-1/4			1.660					
2-1/2 X 1-1/2			1.900					
2-1/2 X 2			2.375					

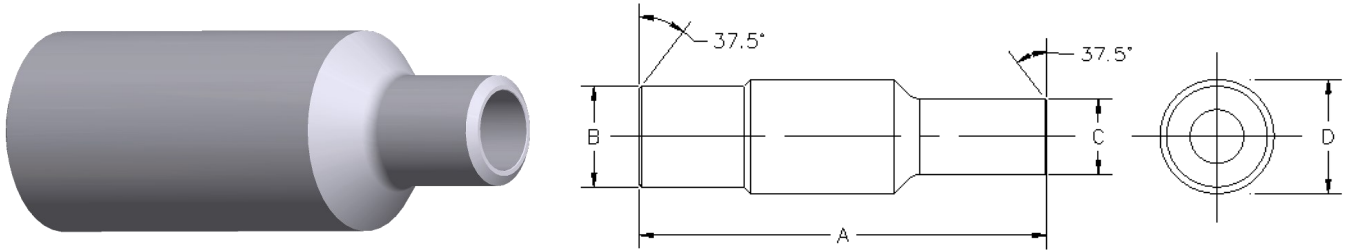
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Stainless Steel Swage Nipples

Beveled Both Ends



ASTM A234, F304/F304L or F316/316L, MSS SP-95



Combination Of End Styles Available

Pipe Size	A	B	C	D	Approx. Wt.			
					Std	XH	160	XXH
3 X 1/2			0.840					
3 X 3/4			1.050					
3 X 1			1.315					
3 X 1-1/4	8.000	3.500	1.660	3.500				
3 X 1-1/2			1.900					
3 X 1			1.315					
3 X 1-1/4	8.000	3.500	1.660	3.500				
3 X 1-1/2			1.900					
3 X 2			2.375					
3 X 2-1/2			2.875					
3-1/2 X 1/2			0.840					
3-1/2 X 3/4			1.050					
3-1/2 X 1			1.315					
3-1/2 X 1-1/4	8.000	4.000	1.660	4.000				
3-1/2 X 1-1/2			1.900					
3-1/2 X 2			2.375					
3-1/2 X 2-1/2			2.875					
3-1/2 X 3			3.500					
4 X 1/2			0.840					
4 X 3/4			1.050					
4 X 1			1.315					
4 X 1-1/4			1.660					
4 X 1-1/2	9.000	4.500	1.900	4.500				

Stainless Steel Socket Weld Fittings

ASTM A182, F304/F304L or F316/316L, ASME B16.11

CAMCO



90° Socket Weld Elbows

1/8" to 2" Class 3000

1/8" to 2" Class 6000



45° Socket Weld Elbows

1/8" to 2" Class 3000

1/8" to 2" Class 6000



Socket Weld TEES

1/8" to 2" Class 3000

1/8" to 2" Class 6000



Socket Weld Crosses

1/8" to 2" Class 3000

1/2" to 2" Class 6000



Socket Weld Couplings

1/8" to 4" Class 3000

1/8" to 4" Class 6000

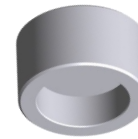
1/4" to 2" Class 9000



Socket Weld Half Couplings

1/8" to 4" Class 3000

1/8" to 4" Class 6000

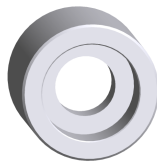


Socket Weld Pipe Caps

1/8" to 4" Class 3000

1/8" to 4" Class 6000

1/2" to 2" Class 9000

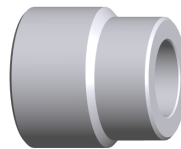


Socket Weld Reducing Couplings

1/4" to 4" Class 3000

1/4" to 4" Class 6000

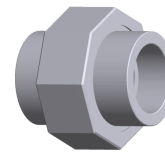
1/4" to 2-1/2" Class 9000



Socket Weld Reducer Inserts

1/4" to 4" Class 3000

1/4" to 4" Class 6000



Socket Weld Pipe Unions

1/8" to 3" Class 3000

1/2" to 2" Class 6000

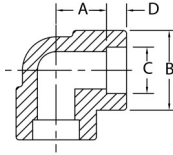
Class 3000 Stainless Steel Socket Weld Fittings



ASTM A182, F304/F304L or F316/316L, ASME B16.11

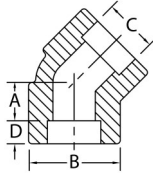
Common Dimensions

Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4
C	0.420/ 0.440	0.555/ 0.575	0.690/ 0.710	0.855/ 0.875	1.065/ 1.085	1.330/ 1.350	1.675/ 1.695	1.915/ 1.935	2.406/ 2.426	2.906/ 2.931	3.535/ 3.560	4.545/ 4.570
D	0.380	0.380	0.380	0.380	0.500	0.500	0.500	0.500	0.620	0.620	0.620	0.750



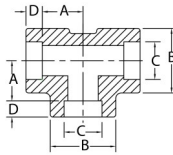
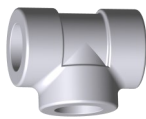
90 Degree Elbows

Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4
A	0.440	0.440	0.530	0.620	0.750	0.880	1.060	1.250	1.500			
B	0.880	0.880	1.040	1.310	1.500	1.810	2.250	2.500	3.030			
Wt. Ea.	0.16	0.16	0.24	0.48	0.67	1.03	1.48	1.99	3.00			



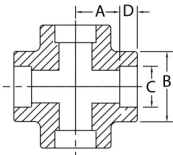
45 Degree Elbows

Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4
A	0.310	0.310	0.310	0.440	0.500	0.560	0.690	0.810	1.000			
B	0.880	0.880	1.040	1.310	1.500	1.810	2.250	2.500	3.030			
Wt. Ea.	0.11	0.11	0.19	0.41	0.55	0.84	1.34	1.56	2.50			



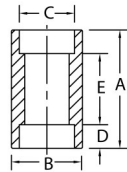
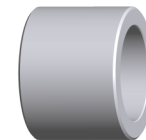
Tees

Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4
A	0.440	0.440	0.530	0.620	0.750	0.880	1.060	1.250	1.500			
B	0.880	0.880	1.040	1.310	1.500	1.810	2.250	2.500	3.030			
Wt. Ea.	0.23	0.22	0.31	0.68	0.85	1.34	2.05	2.73	4.21			



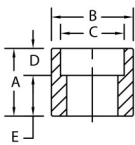
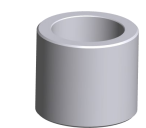
Crosses

Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4
A	0.530	0.530	0.530	0.620	0.750	0.880	1.060	1.250	1.500			
B	1.030	1.030	1.030	1.310	1.500	1.810	2.250	2.500	3.030			
Wt. Ea.	0.53	0.51	0.50	0.83	1.03	1.68	2.56	3.46	5.60			



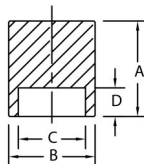
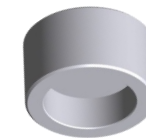
Couplings

Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4
A	1.025	1.025	1.085	1.245	1.335	1.415	1.415	1.415	1.905	1.865	1.865	2.125
B	0.750	0.875	1.063	1.250	1.500	1.875	2.250	2.500	3.000	3.625	4.312	5.500
E	0.250	0.250	0.250	0.380	0.380	0.500	0.500	0.500	0.750	0.750	0.750	0.750
Wt. Ea.	0.15	0.16	0.16	0.24	0.39	0.63	0.80	0.90	1.60	2.32	2.84	4.88



Half Couplings

Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4
A	1.025	1.025	1.085	1.245	1.425	1.585	1.655	1.715	2.205	2.255	2.315	2.575
B	0.750	0.875	1.063	1.250	1.500	1.875	2.250	2.500	3.000	3.625	4.312	5.500
E	0.620	0.620	0.690	0.880	0.940	1.120	1.190	1.250	1.620	1.690	1.750	1.880
Wt. Ea.	0.10	0.17	0.19	0.30	0.45	0.78	1.05	1.26	2.11	3.27	4.26	7.06



Pipe Caps

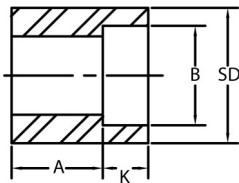
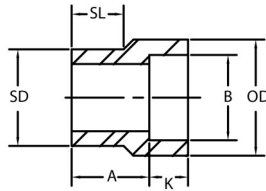
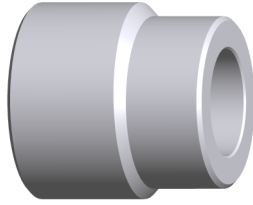
Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4
A	0.705	0.705	0.705	0.765	0.875	1.045	1.045	1.105	1.265	1.395	1.515	1.765
B	0.750	0.875	1.062	1.250	1.500	1.875	2.250	2.500	3.000	3.625	4.312	5.500
Wt. Ea.	0.07	0.14	0.14	0.20	0.34	0.64	0.82	1.12	1.80	2.95	5.00	5.30

Class 3000 Stainless Steel Socket Weld



Reducer Inserts

ASTM A182, F304/F304L or F316/316L, MSS SP-79



TYPE 2

Sizes marked with * not covered by MSS SP-79

For Use With Schedule 40 or 80 Pipe

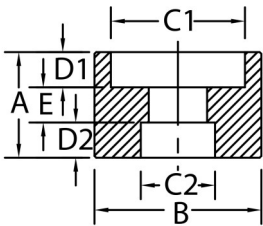
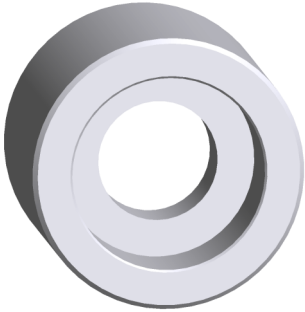
Pipe Size	Type	K	A	SD	B	OD	SL	Wt. Ea.
1/4 x 1/8 *	1	0.380	0.750	0.540	0.430	0.750	0.560	0.40
3/8 x 1/4	1				0.565	0.875	0.560	0.07
3/8 x 1/8 *	1	0.380	0.750	0.675	0.430	0.875	0.560	0.07
1/2 x 3/8	1				0.700	1.062	0.620	0.20
1/2 x 1/4	1	0.380	0.810	0.840	0.565	0.875	0.620	0.13
1/2 x 1/8 *	2				0.430	---	---	0.15
3/4 x 1/2	1		0.880		0.865	1.250	0.690	0.25
3/4 x 3/8	2		0.620		0.700	---	---	0.18
3/4 x 1/4	2	0.380	0.690	1.050	0.565	---	---	0.20
3/4 x 1/8 *	2		0.690		0.430	---	---	0.22
1 x 3/4	1	0.500	0.940		1.075	1.500	0.750	0.35
1 x 1/2	2		0.620		0.865	---	---	0.36
1 x 3/8	2	0.380	0.690	1.315	0.700	---	---	0.40
1 x 1/4	2		0.750		0.565	---	---	0.44
1 x 1/8 *	2		0.750		0.430	---	---	0.48
1-1/4 x 1	1		1.000		1.340	1.875	0.810	0.65
1-1/4 x 3/4	2	0.500	0.690		1.075	---	---	0.62
1-1/4 x 1/2	2		0.750		0.865	---	---	0.65
1-1/4 x 3/8	2	0.380	0.810	1.660	0.700	---	---	0.68
1-1/4 x 1/4	2		0.880		0.565	---	---	0.72
1-1/4 x 1/8 *	2		0.880		0.430	---	---	---
1-1/2 x 1-1/4	1		1.120		1.685	2.188	0.880	0.75
1-1/2 x 1	2	0.500	0.690		1.340	---	---	0.75
1-1/2 x 3/4	2		0.750		1.075	---	---	0.83
1-1/2 x 1/2	2		0.810	1.900	0.865	---	---	0.90
1-1/2 x 3/8	2	0.380	0.880		0.700	---	---	0.95
1-1/2 x 1/4 *	1		0.880		0.565	---	---	0.95
1-1/2 x 1/8 *	2		0.880		0.430	---	---	0.95
2 x 1-1/2	1		1.250		1.925	2.500	1.000	0.93
2 x 1-1/4	2	0.500	0.810		1.685	---	---	1.30
2 x 1	2		0.880		1.340	---	---	1.40
2 x 3/4	2		0.940		1.075	---	---	1.52
2 x 1/2	2		1.000		0.865	---	---	1.59
2 x 3/8 *	2	0.380	1.000	2.375	0.700	---	---	1.69
2 x 1/4 *	2		1.000		0.565	---	---	1.80
2 x 1/8 *	2		1.000		0.430	---	---	1.90
2-1/2 x 2	1	0.620	1.810		2.416	3.000	1.500	1.60
2-1/2 x 1-1/2	2		1.380		1.925	---	---	1.70
2-1/2 x 1-1/4	2		1.440		1.685	---	---	1.80
2-1/2 x 1	2		1.500		1.340	---	---	1.90
2-1/2 x 3/4	2				1.075	---	---	2.00
2-1/2 x 1/2 *	2				0.865	---	---	2.10
2-1/2 x 3/8 *	2	0.500	1.560	2.875	0.700	---	---	2.10
2-1/2 x 1/4 *	2				0.565	---	---	---
2-1/2 x 1/8 *	2				0.430	---	---	---
3 x 2-1/2	1		1.500		2.916	3.625	1.250	2.95
3 x 2	2	0.620	1.000		2.416	---	---	3.40
3 x 1-1/2	2		1.120		1.925	---	---	3.00
3 x 1-1/4	2		1.190		1.685	---	---	2.60
3 x 1	2				1.340	---	---	2.30
3 x 3/4	2				1.075	---	---	2.20
3 x 1/2	2	0.500	1.250	3.500	0.865	---	---	2.40
3 x 3/8 *	2				0.700	---	---	---
3 x 1/4 *	2				0.565	---	---	---
3 x 1/8 *	2				0.430	---	---	---
4 x 3	2		1.310		3.545	---	---	6.25
4 x 2-1/2	2	0.620	1.500		2.916	---	---	6.50
4 x 2	2		1.500		2.416	---	---	6.80
4 x 1-1/2	2		1.620		1.925	---	---	7.00
4 x 1-1/4	2				1.685	---	---	7.20
4 x 1	2				1.340	---	---	7.40
4 x 3/4 *	2	0.500	1.690	4.500	1.075	---	---	---
4 x 1/2 *	2				0.865	---	---	---
4 x 3/8 *	2				0.700	---	---	---
4 x 1/4 *	2				0.565	---	---	---
4 x 1/8 *	2				0.430	---	---	---

Class 3000 Stainless Steel Socket Weld



Reducing Couplings

ASTM A182, F304/F304L or F316/316L, ASME B16.11



Pipe Size	A	B	C1	C2	D1	D2	E	Wt. Ea.
1/4 X 1/8	1.030	0.875	.555/.575	.420/.430	0.395	0.395	0.250	0.18
3/8 X 1/8	1.030	1.063	.690/.710	.420/.430	0.395	0.395	0.250	0.18
3/8 X 1/4				.555/.575				
1/2 X 1/8	1.095	1.250	.855/.875	.420/.430	0.395	0.395	0.380	0.26
1/2 X 1/4				.555/.575				
1/2 X 3/8				.690/.710				
3/4 X 1/8	1.335	1.500	1.065/1.085	.420/.430	0.515	0.515	0.380	0.41
3/4 X 1/4				.555/.575				
3/4 X 3/8				.690/.710				
3/4 X 1/2				.855/.875				
1 X 1/8	1.415	1.875	1.330/1.350	.420/.430	0.515	0.515	0.500	0.65
1 X 1/4				.555/.575				
1 X 3/8				.690/.710				
1 X 1/2				.855/.875				
1 X 3/4				1.065/1.085				
1-1/4 X 1/8	1.415	2.250	1.675/1.695	.420/.430	0.515	0.515	0.500	0.82
1-1/4 X 1/4				.555/.575				
1-1/4 X 3/8				.690/.710				
1-1/4 X 1/2				.855/.875				
1-1/4 X 3/4				1.065/1.085				
1-1/4 X 1				1.330/1.350				
1-1/2 X 1/8	1.415	2.500	1.915/1.935	.420/.430	0.515	0.515	0.500	0.92
1-1/2 X 1/4				.555/.575				
1-1/2 X 3/8				.690/.710				
1-1/2 X 1/2				.855/.875				
1-1/2 X 3/4				1.065/1.085				
1-1/2 X 1				1.330/1.350				
1-1/2 X 1-1/4				1.675/1.695				
2 X 1/8	1.905	3.000	2.406/2.426	.420/.430	0.635	0.635	0.750	1.62
2 X 1/4				.555/.575				
2 X 3/8				.690/.710				
2 X 1/2				.855/.875				
2 X 3/4				1.065/1.085				
2 X 1				1.330/1.350				
2 X 1-1/4				1.675/1.695				
2 X 1-1/2				1.915/1.935				

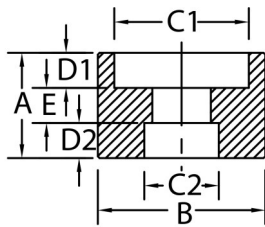
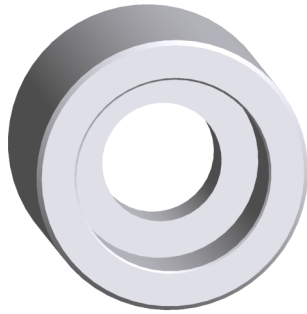
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Class 3000 Stainless Steel Socket Weld



Reducing Couplings

AF304L or F316/316L, ASME B16.11STM A182, F304/



Sizes marked with * are not covered by ASME B16.11

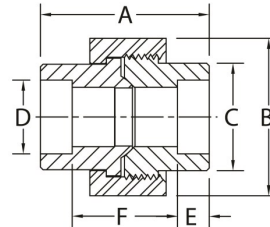
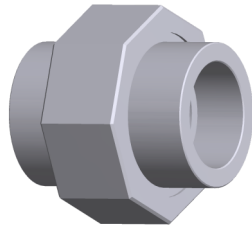
Pipe Size	A	B	C1	C2	D1	D2	E	Wt. Ea.
2-1/2 X 1/8	1.865	3.625	2.906/2.931	.420/.430	0.635	0.635	0.750	2.61
2-1/2 X 1/4				.555/.575				
2-1/2 X 3/8				.690/.710				
2-1/2 X 1/2				.855/.875				
2-1/2 X 3/4				1.065/1.085				
2-1/2 X 1				1.330/1.350				
2-1/2 X 1-1/4				1.675/1.695				
2-1/2 X 1-1/2				1.915/1.935				
2-1/2 X 2				2.406/2.426				
3 X 1/8				1.865				
3 X 1/4	.555/.575							
3 X 3/8	.690/.710							
3 X 1/2	.855/.875							
3 X 3/4	1.065/1.085							
3 X 1	1.330/1.350							
3 X 1-1/4	1.675/1.695							
3 X 1-1/2	1.915/1.935							
3 X 2	2.406/2.426							
3 X 2-1/2	2.906/2.931							
3-1/2 X 1/8 *	2.125	5.000	4.040/4.055	.420/.430	0.765	0.765	0.750	4.15
3-1/2 X 1/4 *				.555/.575				
3-1/2 X 3/8 *				.690/.710				
3-1/2 X 1/2 *				.855/.875				
3-1/2 X 3/4 *				1.065/1.085				
3-1/2 X 1 *				1.330/1.350				
3-1/2 X 1-1/4 *				1.675/1.695				
3-1/2 X 1-1/2 *				1.915/1.935				
3-1/2 X 2 *				2.406/2.426				
3-1/2 X 2-1/2 *				2.906/2.931				
3-1/2 X 3 *	3.535/3.550							
4 X 1/8	2.125	5.500	4.545/4.570	.420/.430	0.765	0.765	0.750	5.17
4 X 1/4				.555/.575				
4 X 3/8				.690/.710				
4 X 1/2				.855/.875				
4 X 3/4				1.065/1.085				
4 X 1				1.330/1.350				
4 X 1-1/4				1.675/1.695				
4 X 1-1/2				1.915/1.935				
4 X 2				2.406/2.426				
4 X 2-1/2				2.906/2.931				
4 X 3				3.535/3.550				
4 X 3-1/2 *				4.040/4.055				

Class 3000 Stainless Steel Socket Weld Unions



X-Series

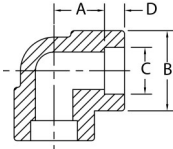
ASTM A182 F304/F304L or ASTM F316/F316L, MSS SP-83, AAR M-404-42



Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1.2	3
A	1.630	1.630	1.810	1.930	2.240	2.440	2.800	3.010	3.390	4.030	4.290
B	1.375	1.375	1.594	1.812	2.187	2.546	3.046	3.406	4.062	4.828	5.687
C	0.859	0.859	1.015	1.234	1.468	1.797	2.172	2.468	3.032	3.64	4.39
D	.420/ .440	.555/ .575	.690/ .710	.855/ .875	1.065/ 1.085	1.330/ 1.350	1.675/ 1.695	1.915/ 1.935	2.406/ 2.426	2.906/ 2.931	3.535/ 3.560
E	0.380	0.380	0.380	0.380	0.500	0.500	0.500	0.500	0.620	0.620	0.620
F	0.75/ 0.88	0.75/ 0.88	0.81/ 1.06	0.81/ 1.06	1.00/ 1.25	1.03/ 1.35	1.28/ 1.60	1.34/ 1.66	1.47/ 1.79	2.05/ 2.43	2.11/ 2.51
Wt. Ea.	0.34	0.34	0.49	0.68	1.19	1.68	2.54	2.33	5.30	8.60	12.70

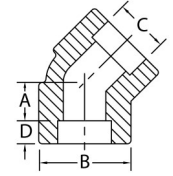
Class 6000 Stainless Steel Socket Weld Fittings

ASTM A182, F304/F304L or F316/316L, ASME B16.11



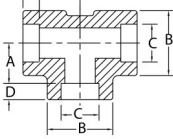
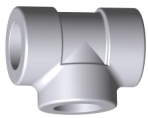
90 Degree Elbows

Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4
A	0.440	0.530	0.620	0.750	0.880	1.060	1.250	1.500	1.620			
B	1.040	1.040	1.310	1.500	1.810	2.250	2.500	3.030	3.310			
Wt. Ea.	0.22	0.24	0.48	0.88	1.37	2.25	2.91	5.22	6.00			



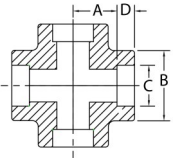
45 Degree Elbows

Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4
A	0.310	0.310	0.440	0.500	0.560	0.690	0.810	1.000	1.120			
B	1.040	1.040	1.310	1.500	1.810	2.250	2.500	3.030	3.310			
Wt. Ea.	0.11	0.19	0.41	0.98	1.14	1.00	2.40	4.22	5.03			



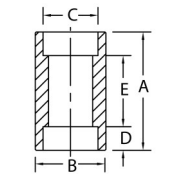
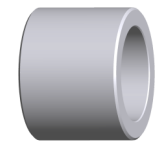
Tees

Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4
A	0.440	0.530	0.620	0.750	0.880	1.060	1.250	1.500	1.620	2.250	2.500	2.875
B	0.870	1.040	1.310	1.500	1.810	2.250	2.500	3.030	3.310	4.000	4.750	6.000
Wt. Ea.		0.31	0.68	1.16	1.94	3.17	3.95	7.13	7.72	15.30	23.10	34.90



Crosses

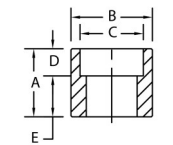
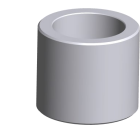
Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4
A				0.750	0.880	1.060	1.250	1.500	1.620			
B				1.500	1.810	2.250	2.500	3.030	3.310			
Wt. Ea.				1.38	2.31	3.50	4.65	8.70	13.00			



Couplings

Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	*2-1/2	*3	*4
A	1.025	1.025	1.025	1.095	1.335	1.415	1.415	1.415	1.905	1.865	1.865	2.125
B	0.875	1.000	1.125	1.375	1.688	2.000	2.500	2.750	3.625	4.250	5.000	6.000
E	0.250	0.250	0.250	0.380	0.380	0.500	0.500	0.500	0.750	0.750	0.750	0.750
Wt. Ea.	0.14	0.16	0.19	0.34	0.59	0.83	1.26	1.44	3.63	4.60	6.04	8.53

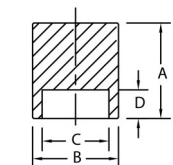
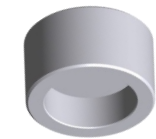
* 2-1/2, 3 and 4 not covered by ASME B16.11



Half Couplings

Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	*2-1/2	*3	*4
A	1.015	1.015	1.085	1.245	1.425	1.585	1.655	1.715	2.205	2.555	2.315	2.575
B	0.875	1.000	1.125	1.375	1.687	2.000	2.500	2.750	3.625	4.250	5.000	6.000
E	0.620	0.620	0.690	0.880	0.940	1.120	1.190	1.250	1.620	1.690	1.750	1.880
Wt. Ea.	0.15	0.18	0.24	0.42	0.71	1.06	1.65	2.01	4.67	5.27	8.57	12.38

* 2-1/2, 3 and 4 not covered by ASME B16.11



Pipe Caps

Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	*2-1/2	*3	*4
A	0.765	0.765	0.765	0.825	0.955	1.075	1.075	1.135	1.395	1.515	1.635	2.015
B	0.875	1.000	1.125	1.375	1.688	2.000	2.500	2.750	3.625	4.250	5.000	6.000
Wt. Ea.	0.12	0.14	0.19	0.30	0.50	0.79	1.22	1.56	3.47	5.20	7.04	12.75

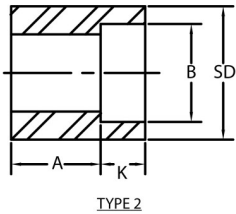
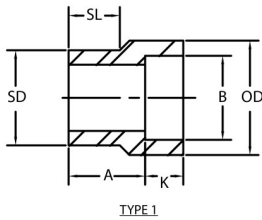
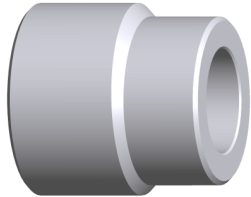
* 2-1/2, 3 and 4 not covered by ASME B16.11

Class 6000 Stainless Steel Socket Weld



Reducer Inserts

ASTM A182 F304/F304L or ASTM F316/F316L, MSS SP-79



Pipe Size	Type	K	A	SD	B	OD	SL	Wt. Ea.
1/2 x 3/8	1		0.910		0.700	1.125	0.620	0.18
1/2 x 1/4	1	0.380	0.810	0.840	0.565	1.000	0.620	---
3/4 x 1/2	1		1.000		0.865	1.375	0.750	0.20
3/4 x 3/8	1	0.380	0.880	1.050	0.700	1.125	0.750	0.23
3/4 x 1/4	2		0.880		0.565	---	---	0.25
1 x 3/4	1	0.500	1.120		1.075	1.750	0.810	0.42
1 x 1/2	1		1.120		0.865	1.375	0.810	0.45
1 x 3/8	2	0.380	0.880	1.315	0.700	---	---	0.50
1 x 1/4	2		0.940		0.565	---	---	0.50
1-1/4 x 1	1		1.190		1.340	2.000	0.880	0.95
1-1/4 x 3/4	2	0.500	0.810		1.075	---	---	0.95
1-1/4 x 1/2	2		0.880	1.660	0.865	---	---	0.95
1-1/4 x 3/8	2	0.380	0.940		0.700	---	---	---
1-1/4 x 1/4	2		1.000		0.565	---	---	---
1-1/2 x 1-1/4	1		1.380		1.685	2.500	1.000	0.95
1-1/2 x 1	1	0.500	1.150		1.340	---	---	1.12
1-1/2 x 3/4	2		1.000		1.075	---	---	1.05
1-1/2 x 1/2	2		1.060	1.900	0.865	---	---	1.12
1-1/2 x 3/8	2	0.380	1.120		0.700	---	---	---
1-1/2 x 1/4 *	2		1.120		0.565	---	---	1.12
2 x 1-1/2	1		1.530		1.900	2.750	1.130	1.70
2 x 1-1/4	2		0.940		1.685	---	---	1.80
2 x 1	2	0.500	1.000		1.340	---	---	1.90
2 x 3/4	2		1.060	2.375	1.075	---	---	2.00
2 x 1/2	2		1.120		0.865	---	---	2.10
2 x 3/8 *	2	0.380	1.560		0.700	---	---	---
2 x 1/4 *	2		1.810		0.565	---	---	---

Sizes marked with * not covered by MSS SP-79

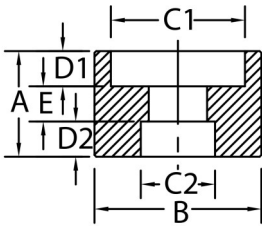
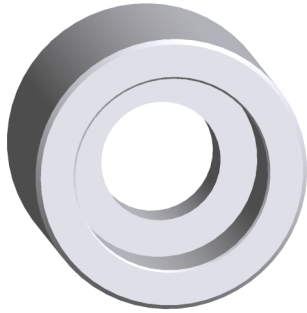
For Use With Schedule 160 Pipe

Class 6000 Stainless Steel Socket Weld



Reducing Couplings

ASTM A182, F304/F304L or F316/316L, ASME B16.11



Sizes marked with * are not covered by ASME B16.11

Pipe Size	A	B	C1	C2	D1	D2	E	Wt. Ea.							
1/4 X 1/8	1.025	1.000	.555/.575	.420/.430	0.395	0.395	0.250	0.09							
3/8 X 1/8	1.025	1.125	.690/.710	.420/.430	0.395	0.395	0.250	0.22							
3/8 X 1/4				.555/.575											
1/2 X 1/8	1.095	1.375	.855/.875	.420/.430	0.395	0.395	0.380	0.37							
1/2 X 1/4				.555/.575											
1/2 X 3/8	1.335	1.750	1.065/1.085	.690/.710	0.515	0.515	0.380	0.62							
3/4 X 1/8				.420/.430											
3/4 X 1/4				.555/.575											
3/4 X 3/8				.690/.710											
3/4 X 1/2	1.415	2.000	1.330/1.350	.855/.875	0.515	0.515	0.500	0.86							
1 X 1/8				.420/.430											
1 X 1/4				.555/.575											
1 X 3/8				.690/.710											
1 X 1/2	1.415	2.500	1.675/1.695	.855/.875	0.515	0.515	0.500	1.29							
1 X 3/4				1.065/1.085											
1-1/4 X 1/8				.420/.430											
1-1/4 X 1/4				.555/.575											
1-1/4 X 3/8	1.415	2.500	1.675/1.695	.690/.710	0.515	0.515	0.500	1.29							
1-1/4 X 1/2				.855/.875											
1-1/4 X 3/4				1.065/1.085											
1-1/4 X 1				1.330/1.350											
1-1/2 X 1/8	1.415	2.750	1.915/1.935	.420/.430	0.515	0.515	0.500	1.47							
1-1/2 X 1/4				.555/.575											
1-1/2 X 3/8				.690/.710											
1-1/2 X 1/2				.855/.875											
1-1/2 X 3/4	1.905	3.500	2.406/2.426	1.065/1.085	0.635	0.635	0.750	3.66							
1-1/2 X 1				1.330/1.350											
1-1/2 X 1-1/4				1.675/1.695											
2 X 1/8				.420/.430											
2 X 1/4	1.865	4.250	2.906/2.931	.555/.575	0.635	0.635	0.750	4.90							
2 X 3/8				.690/.710											
2 X 1/2				.855/.875											
2 X 3/4				1.065/1.085											
2 X 1	1.865	5.000	3.535/3.550	1.330/1.350	0.635	0.635	0.750	6.34							
2 X 1-1/4				1.675/1.695											
2 X 1-1/2				1.915/1.935											
2-1/2 X 1/8 *				.420/.430											
2-1/2 X 1/4 *	2.125	6.000	4.545/4.570	.555/.575	0.765	0.765	0.750	8.83							
2-1/2 X 3/8 *				.690/.710											
2-1/2 X 1/2 *				.855/.875											
2-1/2 X 3/4 *				1.065/1.085											
2-1/2 X 1 *	1.865	5.000	3.535/3.550	1.330/1.350	0.635	0.635	0.750	6.34							
2-1/2 X 1-1/4 *				1.675/1.695											
2-1/2 X 1-1/2 *				1.915/1.935											
2-1/2 X 2 *				2.406/2.426											
3 X 1/8 *	1.865	5.000	3.535/3.550	.420/.430	0.635	0.635	0.750	6.34							
3 X 1/4 *				.555/.575											
3 X 3/8 *				.690/.710											
3 X 1/2 *				.855/.875											
3 X 3/4 *	2.125	6.000	4.545/4.570	1.065/1.085	0.765	0.765	0.750	8.83							
3 X 1 *				1.330/1.350											
3 X 1-1/4 *				1.675/1.695											
3 X 1-1/2 *				1.915/1.935											
3 X 2 *	1.865	5.000	3.535/3.550	2.406/2.426	0.635	0.635	0.750	6.34							
3 X 2-1/2 *				2.906/2.931											
4 X 1/8 *				2.125					6.000	4.545/4.570	.420/.430	0.765	0.765	0.750	8.83
4 X 1/4 *											.555/.575				
4 X 3/8 *	.690/.710														
4 X 1/2 *	.855/.875														
4 X 3/4 *	1.865	5.000	3.535/3.550	1.065/1.085	0.635	0.635	0.750	6.34							
4 X 1 *				1.330/1.350											
4 X 1-1/4 *				1.675/1.695											
4 X 1-1/2 *				1.915/1.935											
4 X 2 *	2.125	6.000	4.545/4.570	2.406/2.426	0.765	0.765	0.750	8.83							
4 X 2-1/2 *				2.906/2.931											
4 X 3 *				3.535/3.550											
4 X 3-1/2 *				4.040/4.055											