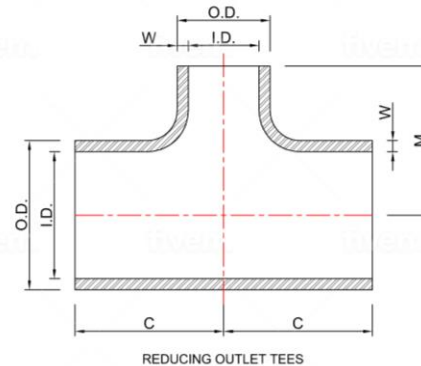


Project Name: _____
Job #: _____

FITTINGS
A403
(T RED)

ASTM A403, B16.9 REDUCING TEES



Grade: ☐ 304L ☐ 316L ☐ _____
Seam: ☐ Welded ☐ Seamless ☐ WPWX
Source: ☐ Import ☐ Domestic ☐ BAA ☐ AIS ☐ _____

DIMENSIONS

UOM: Inches/LBS

SELECT	NOMINAL PIPE SIZE Run x Outlet	OUTSIDE DIAMETER RUN (O.D.)	OUTSIDE DIAMETER OUTLET (O.D.)	CENTER TO END RUN (C)	CENTER TO END OUTLET (M)	SCHEDULE 5S ☐ <- SELECT				
						Inside Diameter Run (I.D.)	Inside Diameter Outlet (I.D.)	Wall Thickness Run (W)	Wall Thickness Outlet (W)	Approx Weight
☐	½ x ¼	0.840	0.540	1	1	0.710	0.410	0.065	0.065	0.16
☐	½ x ⅜	0.840	0.675	1	1	0.710	0.545	0.065	0.065	0.17
☐	¾ x ⅜	1.050	0.675	1 ⅛	1 ⅛	0.920	0.545	0.065	0.065	0.19
☐	¾ x ½	1.050	0.840	1 ⅛	1 ⅛	0.920	0.710	0.065	0.065	0.20
☐	1 x ⅜	1.315	0.675	1 ½	1 ½	1.185	0.545	0.065	0.065	0.34
☐	1 x ½	1.315	0.840	1 ½	1 ½	1.185	0.710	0.065	0.065	0.35
☐	1 x ¾	1.315	1.050	1 ½	1 ½	1.185	0.920	0.065	0.065	0.36
☐	1 ¼ x ½	1.660	0.840	1 ⅞	1 ⅞	1.530	0.710	0.065	0.065	0.64
☐	1 ¼ x ¾	1.660	1.050	1 ⅞	1 ⅞	1.530	0.920	0.065	0.065	0.66
☐	1 ¼ x 1	1.660	1.315	1 ⅞	1 ⅞	1.530	1.185	0.065	0.065	0.68
☐	1 ½ x ½	1.900	0.840	2 ¼	2 ¼	1.770	0.710	0.065	0.065	0.81
☐	1 ½ x ¾	1.900	1.050	2 ¼	2 ¼	1.770	0.920	0.065	0.065	0.82
☐	1 ½ x 1	1.900	1.315	2 ¼	2 ¼	1.770	1.185	0.065	0.065	0.83
☐	1 ½ x 1 ¼	1.900	1.660	2 ¼	2 ¼	1.770	1.530	0.065	0.065	0.85
☐	2 x ½	2.375	0.840	2 ½	1 ¾	-----	-----	-----	-----	-----
☐	2 x ¾	2.375	1.050	2 ½	1 ¾	2.245	0.920	0.065	0.065	1.02
☐	2 x 1	2.375	1.315	2 ½	2	2.245	1.185	0.065	0.065	1.03
☐	2 x 1 ¼	2.375	1.660	2 ½	2 ¼	2.245	1.530	0.065	0.065	1.05
☐	2 x 1 ½	2.375	1.900	2 ½	2 ⅝	2.245	1.770	0.065	0.065	1.08
☐	2 ½ x 1	2.875	1.315	3	2 ¼	2.709	1.185	0.083	0.065	1.83
☐	2 ½ x 1 ¼	2.875	1.660	3	2 ½	2.709	1.530	0.083	0.065	1.85
☐	2 ½ x 1 ½	2.875	1.900	3	2 ⅝	2.709	1.770	0.083	0.065	1.89
☐	2 ½ x 2	2.875	2.375	3	2 ¾	2.709	2.245	0.083	0.065	1.93
☐	3 x 1	3.500	1.315	3 ⅝	2 ⅝	3.334	1.185	0.083	0.065	2.85
☐	3 x 1 ¼	3.500	1.660	3 ⅝	2 ¾	3.334	1.530	0.083	0.065	2.89
☐	3 x 1 ½	3.500	1.900	3 ⅝	2 ⅞	3.334	1.770	0.083	0.065	2.93
☐	3 x 2	3.500	2.375	3 ⅝	3	3.334	2.245	0.083	0.065	2.99
☐	3 x 2 ½	3.500	2.875	3 ⅝	3 ¼	3.334	2.709	0.083	0.065	3.06
☐	3 ½ x 1 ½	4.000	1.900	3 ¾	3 ⅝	3.834	1.770	0.083	0.065	4.67

ss wld ftg and pipe conform to ASTM A403 & MSS SP-43; dimensionally, all ftg conform to ASME B16.9
(= Wall) & MSS SP-43

FITTINGS
A403
(T RED)

Project Name: _____
Job #: _____

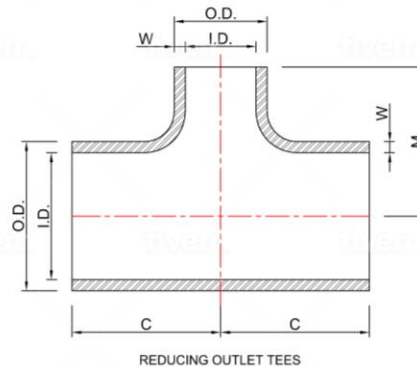
SELECT	NOMINAL PIPE SIZE Run x Outlet	OUTSIDE DIAMETER RUN (O.D.)	OUTSIDE DIAMETER OUTLET (O.D.)	CENTER TO END RUN (C)	CENTER TO END OUTLET (M)	SCHEDULE 5S ■ < SELECT				
						Inside Diameter Run (I.D.)	Inside Diameter Outlet (I.D.)	Wall Thickness Run (W)	Wall Thickness Outlet (W)	Approx Weight
☐	3 ½ x 2	4.000	2.375	3 ¾	3 ¼	3.834	2.245	0.083	0.065	4.73
☐	3 ½ x 2 ½	4.000	2.875	3 ¾	3 ½	3.834	2.709	0.083	0.065	4.84
☐	3 ½ x 3	4.000	3.500	3 ¾	3 ⅝	3.834	3.334	0.083	0.065	4.95
☐	4 x 1 ½	4.500	1.900	4 ⅛	3 ⅝	4.334	1.770	0.083	0.065	6.05
☐	4 x 2	4.500	2.375	4 ⅛	3 ½	4.334	2.245	0.083	0.065	6.12
☐	4 x 2 ½	4.500	2.875	4 ⅛	3 ¾	4.334	2.709	0.083	0.083	6.19
☐	4 x 3	4.500	3.500	4 ⅛	3 ⅝	4.334	3.334	0.083	0.083	6.33
☐	4 x 3 ½	4.500	4.000	4 ⅛	4	4.334	3.834	0.083	0.083	6.48
☐	5 x 2	5.563	2.375	4 ⅞	4 ⅛	5.345	2.245	0.109	0.065	10.92
☐	5 x 2 ½	5.563	2.875	4 ⅞	4 ¼	5.345	2.709	0.109	0.083	11.05
☐	5 x 3	5.563	3.500	4 ⅞	4 ⅝	5.345	3.334	0.109	0.083	11.18
☐	5 x 3 ½	5.563	4.000	4 ⅞	4 ½	5.345	3.834	0.109	0.083	11.44
☐	5 x 4	5.563	4.500	4 ⅞	4 ⅝	5.345	4.334	0.109	0.083	11.70
☐	6 x 2	6.625	2.375	5 ⅝	4 ⅝	6.407	2.245	0.109	0.083	14.48
☐	6 x 2 ½	6.625	2.875	5 ⅝	4 ¾	6.407	2.709	0.109	0.083	14.48
☐	6 x 3	6.625	3.500	5 ⅝	4 ⅞	6.407	3.334	0.109	0.083	14.62
☐	6 x 3 ½	6.625	4.000	5 ⅝	5	6.407	3.834	0.109	0.083	14.79
☐	6 x 4	6.625	4.500	5 ⅝	5 ⅛	6.407	4.334	0.109	0.083	15.13
☐	6 x 5	6.625	5.563	5 ⅝	5 ⅝	6.407	5.345	0.109	0.109	15.48
☐	8 x 3	8.625	3.500	7	6	8.407	3.334	0.109	0.083	26.04
☐	8 x 3 ½	8.625	4.000	7	6	8.407	3.834	0.109	0.083	26.35
☐	8 x 4	8.625	4.500	7	6 ⅛	8.407	4.334	0.109	0.083	26.66
☐	8 x 5	8.625	5.563	7	6 ⅝	8.407	5.345	0.109	0.109	27.28
☐	8 x 6	8.625	6.625	7	6 ⅝	8.407	6.407	0.109	0.109	27.90
☐	10 x 4	10.750	4.500	8 ½	7 ¼	10.482	4.334	0.134	0.083	46.75
☐	10 x 5	10.750	5.563	8 ½	7 ½	10.482	5.345	0.134	0.109	47.30
☐	10 x 6	10.750	6.625	8 ½	7 ⅝	10.482	6.407	0.134	0.109	48.40
☐	10 x 8	10.750	8.625	8 ½	8	10.482	8.407	0.134	0.109	49.50
☐	12 x 5	12.750	5.563	10	8 ½	12.438	5.345	0.156	0.109	70.55
☐	12 x 6	12.750	6.625	10	8 ⅝	12.438	6.407	0.156	0.109	71.38
☐	12 x 8	12.750	8.625	10	9	12.438	8.407	0.156	0.109	73.04
☐	12 x 10	12.750	10.750	10	9 ½	12.438	10.482	0.156	0.134	74.70
☐	14 x 6	14.000	6.625	11	9 ⅝	13.688	6.407	0.156	0.109	75.65
☐	14 x 8	14.000	8.625	11	9 ¾	13.688	8.407	0.156	0.109	76.54
☐	14 x 10	14.000	10.750	11	10 ⅛	13.688	10.482	0.156	0.134	78.32
☐	14 x 12	14.000	12.750	11	10 ⅝	13.688	12.438	0.156	0.156	80.10
☐	16 x 6	16.000	6.625	12	10 ⅝	15.670	6.407	0.165	0.109	96.60
☐	16 x 8	16.000	8.625	12	10 ¾	15.670	8.407	0.165	0.109	97.75
☐	16 x 10	16.000	10.750	12	11 ⅛	15.670	10.482	0.165	0.134	98.90
☐	16 x 12	16.000	12.750	12	11 ⅝	15.670	12.438	0.165	0.156	101.00
☐	16 x 14	16.000	14.000	12	12	15.670	13.688	0.165	0.156	103.00
☐	18 x 8	18.000	8.625	13 ½	11 ¼	17.670	8.407	0.165	0.109	125.00
☐	18 x 10	18.000	10.750	13 ½	12 ⅛	17.670	10.482	0.165	0.134	126.00
☐	18 x 12	18.000	12.750	13 ½	12 ⅝	17.670	12.438	0.165	0.156	128.00
☐	18 x 14	18.000	14.000	13 ½	13	17.670	13.688	0.165	0.156	131.00
☐	18 x 16	18.000	16.000	13 ½	13	17.670	15.670	0.165	0.165	134.00
☐	20 x 8	20.000	8.625	15	12 ¾	19.624	8.407	0.188	0.109	141.00
☐	20 x 10	20.000	10.750	15	13 ⅛	19.624	10.482	0.188	0.134	143.00
☐	20 x 12	20.000	12.750	15	13 ⅝	19.624	12.438	0.188	0.156	145.00
☐	20 x 14	20.000	14.000	15	14	19.624	13.688	0.188	0.156	147.00
☐	20 x 16	20.000	16.000	15	14	19.624	15.670	0.188	0.165	150.00
☐	20 x 18	20.000	18.000	15	14 ½	19.624	17.670	0.188	0.165	154.00
☐	24 x 10	24.000	10.750	17	15 ⅝	23.564	10.482	0.218	0.134	247.00
☐	24 x 12	24.000	12.750	17	15 ⅝	23.564	12.438	0.218	0.156	250.00
☐	24 x 14	24.000	14.000	17	16	23.564	13.688	0.218	0.156	253.00
☐	24 x 16	24.000	16.000	17	16	23.564	15.670	0.218	0.165	256.00
☐	24 x 18	24.000	18.000	17	16 ½	23.564	17.670	0.218	0.165	262.00
☐	24 x 20	24.000	20.000	17	17	23.564	19.624	0.218	0.188	268.00

ss wld ftg and pipe conform to ASTM A403 & MSS SP-43; dimensionally, all ftg conform to ASME B16.9
(≠ Wall) & MSS SP-43

Project Name: _____
Job #: _____

ASTM A403, B16.9

REDUCING TEES



Grade: ☐ 304L ☐ 316L ☐ _____
Seam: ☐ Welded ☐ Seamless ☐ WPWX
Source: ☐ Import ☐ Domestic ☐ BAA ☐ AIS ☐ _____

DIMENSIONS

UOM: Inches/LBS

SELECT	NOMINAL PIPE SIZE Run x Outlet	OUTSIDE DIAMETER RUN (O.D.)	OUTSIDE DIAMETER OUTLET (O.D.)	CENTER TO END RUN (C)	CENTER TO END OUTLET (M)	SCHEDULE 10S ☐ < SELECT				
						Inside Diameter Run (I.D.)	Inside Diameter Outlet (I.D.)	Wall Thickness Run (W)	Wall Thickness Outlet (W)	Approx Weight
☐	1/2 x 1/4	0.840	0.540	1	1	0.674	0.410	0.083	0.065	0.18
☐	1/2 x 3/8	0.840	0.675	1	1	0.674	0.545	0.083	0.065	0.19
☐	3/4 x 3/8	1.050	0.675	1 1/8	1 1/8	0.884	0.545	0.083	0.065	0.24
☐	3/4 x 1/2	1.050	0.840	1 1/8	1 1/8	0.884	0.674	0.083	0.083	0.25
☐	1 x 3/8	1.315	0.675	1 1/2	1 1/2	1.097	0.545	0.109	0.065	0.54
☐	1 x 1/2	1.315	0.840	1 1/2	1 1/2	1.097	0.674	0.109	0.083	0.55
☐	1 x 3/4	1.315	1.050	1 1/2	1 1/2	1.097	0.884	0.109	0.083	0.56
☐	1 1/4 x 1/2	1.660	0.840	1 7/8	1 7/8	1.442	0.674	0.109	0.083	0.95
☐	1 1/4 x 3/4	1.660	1.050	1 7/8	1 7/8	1.442	0.884	0.109	0.083	0.97
☐	1 1/4 x 1	1.660	1.315	1 7/8	1 7/8	1.442	1.097	0.109	0.109	0.99
☐	1 1/2 x 1/2	1.900	0.840	2 1/4	2 1/4	1.682	0.674	0.109	0.083	1.27
☐	1 1/2 x 3/4	1.900	1.050	2 1/4	2 1/4	1.682	0.884	0.109	0.083	1.29
☐	1 1/2 x 1	1.900	1.315	2 1/4	2 1/4	1.682	1.097	0.109	0.109	1.32
☐	1 1/2 x 1 1/4	1.900	1.660	2 1/4	2 1/4	1.682	1.442	0.109	0.109	1.35
☐	2 x 1/2	2.375	0.840	2 1/2	1 3/4	2.157	0.674	0.109	0.083	1.12
☐	2 x 3/4	2.375	1.050	2 1/2	1 3/4	2.157	0.884	0.109	0.083	1.59
☐	2 x 1	2.375	1.315	2 1/2	2	2.157	1.097	0.109	0.109	1.60
☐	2 x 1 1/4	2.375	1.660	2 1/2	2 1/4	2.157	1.442	0.109	0.109	1.64
☐	2 x 1 1/2	2.375	1.900	2 1/2	2 3/8	2.157	1.682	0.109	0.109	1.68
☐	2 1/2 x 1	2.875	1.315	3	2 1/4	2.635	1.097	0.120	0.109	2.63
☐	2 1/2 x 1 1/4	2.875	1.660	3	2 1/2	2.635	1.442	0.120	0.109	2.66
☐	2 1/2 x 1 1/2	2.875	1.900	3	2 3/8	2.635	1.682	0.120	0.109	2.73
☐	2 1/2 x 2	2.875	2.375	3	2 3/4	2.635	2.157	0.120	0.109	2.79
☐	3 x 1	3.500	1.315	3 3/8	2 3/8	3.260	1.097	0.120	0.109	3.27
☐	3 x 1 1/4	3.500	1.660	3 3/8	2 3/4	3.260	1.442	0.120	0.109	3.31
☐	3 x 1 1/2	3.500	1.900	3 3/8	2 7/8	3.260	1.682	0.120	0.109	3.35
☐	3 x 2	3.500	2.375	3 3/8	3	3.260	2.157	0.120	0.109	3.43
☐	3 x 2 1/2	3.500	2.875	3 3/8	3 1/4	3.260	2.635	0.120	0.120	3.51
☐	3 1/2 x 1 1/2	4.000	1.900	3 3/4	3 1/8	3.760	1.682	0.120	0.109	4.99

ss wld ftg and pipe conform to ASTM A403 & MSS SP-43; dimensionally, all ftg conform to ASME B16.9
(≠ Wall) & MSS SP-43

SELECT	NOMINAL PIPE SIZE Run x Outlet	OUTSIDE DIAMETER RUN (O.D.)	OUTSIDE DIAMETER OUTLET (O.D.)	CENTER TO END RUN (C)	CENTER TO END OUTLET (M)	SCHEDULE 10S ☐ <- SELECT				
						Inside Diameter Run (I.D.)	Inside Diameter Outlet (I.D.)	Wall Thickness Run (W)	Wall Thickness Outlet (W)	Approx Weight
☐	3 ½ x 2	4.000	2.375	3 ¾	3 ¼	3.760	2.157	0.120	0.109	5.05
☐	3 ½ x 2 ½	4.000	2.875	3 ¾	3 ½	3.760	2.635	0.120	0.120	5.17
☐	3 ½ x 3	4.000	3.500	3 ¾	3 ⅝	3.760	3.260	0.120	0.120	5.29
☐	4 x 1 ½	4.500	1.900	4 ⅛	3 ⅜	4.260	1.682	0.120	0.109	6.40
☐	4 x 2	4.500	2.375	4 ⅛	3 ½	4.260	2.157	0.120	0.109	6.48
☐	4 x 2 ½	4.500	2.875	4 ⅛	3 ¾	4.260	2.635	0.120	0.120	6.56
☐	4 x 3	4.500	3.500	4 ⅛	3 ⅞	4.260	3.260	0.120	0.120	6.71
☐	4 x 3 ½	4.500	4.000	4 ⅛	4	4.260	3.760	0.120	0.120	6.86
☐	5 x 2	5.563	2.375	4 ⅞	4 ⅛	5.295	2.157	0.134	0.109	11.29
☐	5 x 2 ½	5.563	2.875	4 ⅞	4 ¼	5.295	2.635	0.134	0.120	11.43
☐	5 x 3	5.563	3.500	4 ⅞	4 ⅜	5.295	3.260	0.134	0.120	11.56
☐	5 x 3 ½	5.563	4.000	4 ⅞	4 ½	5.295	3.760	0.134	0.120	11.83
☐	5 x 4	5.563	4.500	4 ⅞	4 ⅝	5.295	4.260	0.134	0.120	12.10
☐	6 x 2	6.625	2.375	5 ⅝	4 ⅝	6.357	2.157	0.134	0.109	14.95
☐	6 x 2 ½	6.625	2.875	5 ⅝	4 ¾	6.357	2.635	0.134	0.120	14.95
☐	6 x 3	6.625	3.500	5 ⅝	4 ⅞	6.357	3.260	0.134	0.120	15.13
☐	6 x 3 ½	6.625	4.000	5 ⅝	5	6.357	3.760	0.134	0.120	15.31
☐	6 x 4	6.625	4.500	5 ⅝	5 ⅛	6.357	4.260	0.134	0.120	15.66
☐	6 x 5	6.625	5.563	5 ⅝	5 ⅜	6.357	5.295	0.134	0.134	16.02
☐	8 x 3	8.625	3.500	7	6	8.329	3.260	0.148	0.120	29.00
☐	8 x 3 ½	8.625	4.000	7	6	8.329	3.760	0.148	0.120	29.32
☐	8 x 4	8.625	4.500	7	6 ⅛	8.329	4.260	0.148	0.120	29.67
☐	8 x 5	8.625	5.563	7	6 ⅜	8.329	5.295	0.148	0.134	30.36
☐	8 x 6	8.625	6.625	7	6 ⅝	8.329	6.357	0.148	0.134	31.05
☐	10 x 4	10.750	4.500	8 ½	7 ¼	10.420	4.260	0.165	0.120	50.15
☐	10 x 5	10.750	5.563	8 ½	7 ½	10.420	5.295	0.165	0.134	50.74
☐	10 x 6	10.750	6.625	8 ½	7 ⅝	10.420	6.357	0.165	0.134	51.92
☐	10 x 8	10.750	8.625	8 ½	8	10.420	8.329	0.165	0.148	53.10
☐	12 x 5	12.750	5.563	10	8 ½	12.390	5.295	0.180	0.134	73.95
☐	12 x 6	12.750	6.625	10	8 ⅝	12.390	6.357	0.180	0.134	74.82
☐	12 x 8	12.750	8.625	10	9	12.390	8.329	0.180	0.148	76.56
☐	12 x 10	12.750	10.750	10	9 ½	12.390	10.420	0.180	0.165	78.30
☐	14 x 6	14.000	6.625	11	9 ⅜	13.624	6.357	0.188	0.134	90.95
☐	14 x 8	14.000	8.625	11	9 ¾	13.624	8.329	0.188	0.148	92.02
☐	14 x 10	14.000	10.750	11	10 ⅛	13.624	10.420	0.188	0.165	94.16
☐	14 x 12	14.000	12.750	11	10 ⅝	13.624	12.390	0.188	0.180	96.30
☐	16 x 6	16.000	6.625	12	10 ⅝	15.624	6.357	0.188	0.134	109.00
☐	16 x 8	16.000	8.625	12	10 ¾	15.624	8.329	0.188	0.148	110.00
☐	16 x 10	16.000	10.750	12	11 ⅛	15.624	10.420	0.188	0.165	112.00
☐	16 x 12	16.000	12.750	12	11 ⅝	15.624	12.390	0.188	0.180	114.00
☐	16 x 14	16.000	14.000	12	12	15.624	13.624	0.188	0.188	117.00
☐	18 x 8	18.000	8.625	13 ½	11 ¾	17.624	8.329	0.188	0.148	142.00
☐	18 x 10	18.000	10.750	13 ½	12 ⅛	17.624	10.420	0.188	0.165	143.00
☐	18 x 12	18.000	12.750	13 ½	12 ⅝	17.624	12.390	0.188	0.180	145.00
☐	18 x 14	18.000	14.000	13 ½	13	17.624	13.624	0.188	0.188	148.00
☐	18 x 16	18.000	16.000	13 ½	13	17.624	15.624	0.188	0.188	152.00
☐	20 x 8	20.000	8.625	15	12 ¾	19.564	8.329	0.218	0.148	189.00
☐	20 x 10	20.000	10.750	15	13 ⅛	19.564	10.420	0.218	0.165	191.00
☐	20 x 12	20.000	12.750	15	13 ⅝	19.564	12.390	0.218	0.180	193.00
☐	20 x 14	20.000	14.000	15	14	19.564	13.624	0.218	0.188	196.00
☐	20 x 16	20.000	16.000	15	14	19.564	15.624	0.218	0.188	200.00
☐	20 x 18	20.000	18.000	15	14 ½	19.564	17.624	0.218	0.188	205.00
☐	24 x 10	24.000	10.750	17	15 ⅛	23.500	10.420	0.250	0.165	284.00
☐	24 x 12	24.000	12.750	17	15 ⅝	23.500	12.390	0.250	0.180	288.00
☐	24 x 14	24.000	14.000	17	16	23.500	13.624	0.250	0.188	291.00
☐	24 x 16	24.000	16.000	17	16	23.500	15.624	0.250	0.188	295.00
☐	24 x 18	24.000	18.000	17	16 ½	23.500	17.624	0.250	0.188	302.00
☐	24 x 20	24.000	20.000	17	17	23.500	19.564	0.250	0.218	308.00

ss wld ftg and pipe conform to ASTM A403 & MSS SP-43; dimensionally, all ftg conform to ASME B16.9
(≠ Wall) & MSS SP-43

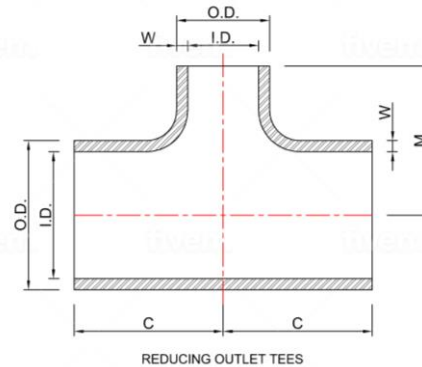


Project Name: _____

Job #: _____

ASTM A403, B16.9

REDUCING TEES



Grade: ☐ 304L ☐ 316L ☐ _____
 Seam: ☐ Welded ☐ Seamless ☐ WPWX
 Source: ☐ Import ☐ Domestic ☐ BAA ☐ AIS ☐ _____

DIMENSIONS

UOM: Inches/LBS

SELECT	NOMINAL PIPE SIZE Run x Outlet	OUTSIDE DIAMETER RUN (O.D.)	OUTSIDE DIAMETER OUTLET (O.D.)	CENTER TO END RUN (C)	CENTER TO END OUTLET (M)	SCHEDULE 40S ☐ < SELECT				
						Inside Diameter Run (I.D.)	Inside Diameter Outlet (I.D.)	Wall Thickness Run (W)	Wall Thickness Outlet (W)	Approx Weight
☐	1/2 x 1/4	0.840	0.540	1	1	0.622	0.364	0.109	0.088	0.20
☐	1/2 x 3/8	0.840	0.675	1	1	0.622	0.493	0.109	0.091	0.21
☐	3/4 x 3/8	1.050	0.675	1 1/8	1 1/8	0.824	0.493	0.113	0.091	0.32
☐	3/4 x 1/2	1.050	0.840	1 1/8	1 1/8	0.824	0.622	0.113	0.109	0.34
☐	1 x 3/8	1.315	0.675	1 1/2	1 1/2	1.049	0.493	0.133	0.091	0.56
☐	1 x 1/2	1.315	0.840	1 1/2	1 1/2	1.049	0.622	0.133	0.109	0.57
☐	1 x 3/4	1.315	1.050	1 1/2	1 1/2	1.049	0.824	0.133	0.113	0.59
☐	1 1/4 x 1/2	1.660	0.840	1 7/8	1 7/8	1.380	0.622	0.140	0.109	.12
☐	1 1/4 x 3/4	1.660	1.050	1 7/8	1 7/8	1.380	0.824	0.140	0.113	1.15
☐	1 1/4 x 1	1.660	1.315	1 7/8	1 7/8	1.380	1.049	0.140	0.133	1.7
☐	1 1/2 x 1/2	1.900	0.840	2 1/4	2 1/4	1.610	0.622	0.145	0.109	1.61
☐	1 1/2 x 3/4	1.900	1.050	2 1/4	2 1/4	1.610	0.824	0.145	0.113	1.63
☐	1 1/2 x 1	1.900	1.315	2 1/4	2 1/4	1.610	1.049	0.145	0.133	1.67
☐	1 1/2 x 1 1/4	1.900	1.660	2 1/4	2 1/4	1.610	1.380	0.145	0.140	1.71
☐	2 x 1/2	2.375	0.840	2 1/2	1 3/4	2.067	0.622	0.154	0.109	1.68
☐	2 x 3/4	2.375	1.050	2 1/2	1 3/4	2.067	0.824	0.154	0.113	2.40
☐	2 x 1	2.375	1.315	2 1/2	2	2.067	1.049	0.154	0.133	2.43
☐	2 x 1 1/4	2.375	1.660	2 1/2	2 1/4	2.067	1.380	0.154	0.140	2.46
☐	2 x 1 1/2	2.375	1.900	2 1/2	2 3/8	2.067	1.610	0.154	0.145	2.54
☐	2 1/2 x 1	2.875	1.315	3	2 1/4	2.469	1.049	0.203	0.133	4.12
☐	2 1/2 x 1 1/4	2.875	1.660	3	2 1/2	2.469	1.380	0.203	0.140	4.17
☐	2 1/2 x 1 1/2	2.875	1.900	3	2 3/8	2.469	1.610	0.203	0.145	4.27
☐	2 1/2 x 2	2.875	2.375	3	2 3/4	2.469	2.067	0.203	0.154	4.36
☐	3 x 1	3.500	1.315	3 3/8	2 3/8	3.068	1.049	0.216	0.133	6.13
☐	3 x 1 1/4	3.500	1.660	3 3/8	2 3/4	3.068	1.380	0.216	0.140	6.20
☐	3 x 1 1/2	3.500	1.900	3 3/8	2 7/8	3.068	1.610	0.216	0.145	6.28
☐	3 x 2	3.500	2.375	3 3/8	3	3.068	2.067	0.216	0.154	6.42
☐	3 x 2 1/2	3.500	2.875	3 3/8	3 1/4	3.068	2.469	0.216	0.203	6.57
☐	3 1/2 x 1 1/2	4.000	1.900	3 3/4	3 1/8	3.548	1.610	0.226	0.145	7.65

ss wld ftg and pipe conform to ASTM A403 & MSS SP-43; dimensionally, all ftg conform to ASME B16.9
 (= Wall) & MSS SP-43

Project Name: _____
Job #: _____

SELECT	NOMINAL PIPE SIZE Run x Outlet	OUTSIDE DIAMETER RUN (O.D.)	OUTSIDE DIAMETER OUTLET (O.D.)	CENTER TO END RUN (C)	CENTER TO END OUTLET (M)	SCHEDULE 40S ☐ < SELECT				
						Inside Diameter Run (I.D.)	Inside Diameter Outlet (I.D.)	Wall Thickness Run (W)	Wall Thickness Outlet (W)	Approx Weight
☐	3 1/2 x 2	4.000	2.375	3 3/4	3 3/4	3.548	2.067	0.226	0.154	7.74
☐	3 1/2 x 2 1/2	4.000	2.875	3 3/4	3 1/2	3.548	2.469	0.226	0.203	8.97
☐	3 1/2 x 3	4.000	3.500	3 3/4	3 5/8	3.548	3.068	0.226	0.216	9.10
☐	4 x 1 1/2	4.500	1.900	4 1/8	3 3/8	4.026	1.610	0.237	0.145	9.76
☐	4 x 2	4.500	2.375	4 1/8	3 1/2	4.026	2.067	0.237	0.154	9.88
☐	4 x 2 1/2	4.500	2.875	4 1/8	3 3/4	4.026	2.469	0.237	0.203	10.00
☐	4 x 3	4.500	3.500	4 1/8	3 7/8	4.026	3.068	0.237	0.216	10.23
☐	4 x 3 1/2	4.500	4.000	4 1/8	4	4.026	3.548	0.237	0.226	10.40
☐	5 x 2	5.563	2.375	4 7/8	4 1/8	5.047	2.067	0.258	0.154	17.43
☐	5 x 2 1/2	5.563	2.875	4 7/8	4 1/4	5.047	2.469	0.258	0.203	17.63
☐	5 x 3	5.563	3.500	4 7/8	4 3/8	5.047	3.068	0.258	0.216	17.84
☐	5 x 3 1/2	5.563	4.000	4 7/8	4 1/2	5.047	3.548	0.258	0.226	18.26
☐	5 x 4	5.563	4.500	4 7/8	4 5/8	5.047	4.026	0.258	0.237	18.67
☐	6 x 2	6.625	2.375	5 3/8	4 3/8	6.065	2.067	0.280	0.154	20.37
☐	6 x 2 1/2	6.625	2.875	5 3/8	4 3/4	6.065	2.469	0.280	0.203	20.37
☐	6 x 3	6.625	3.500	5 3/8	4 7/8	6.065	3.068	0.280	0.216	26.32
☐	6 x 3 1/2	6.625	4.000	5 3/8	5	6.065	3.548	0.280	0.226	20.85
☐	6 x 4	6.625	4.500	5 3/8	5 1/8	6.065	4.026	0.280	0.237	21.34
☐	6 x 5	6.625	5.563	5 3/8	5 3/8	6.065	5.047	0.280	0.258	21.82
☐	8 x 3	8.625	3.500	7	6	7.981	3.068	0.322	0.216	38.72
☐	8 x 3 1/2	8.625	4.000	7	6	7.981	3.548	0.322	0.226	39.18
☐	8 x 4	8.625	4.500	7	6 1/8	7.981	4.026	0.322	0.237	39.64
☐	8 x 5	8.625	5.563	7	6 3/8	7.981	5.047	0.322	0.258	40.56
☐	8 x 6	8.625	6.625	7	6 5/8	7.981	6.065	0.322	0.280	41.49
☐	10 x 4	10.750	4.500	8 1/2	7 1/4	10.020	4.026	0.365	0.237	66.30
☐	10 x 5	10.750	5.563	8 1/2	7 1/2	10.020	5.047	0.365	0.258	67.80
☐	10 x 6	10.750	6.625	8 1/2	7 5/8	10.020	6.065	0.365	0.280	68.64
☐	10 x 8	10.750	8.625	8 1/2	8	10.020	7.981	0.365	0.322	70.20
☐	12 x 5	12.750	5.563	10	8 1/2	12.000	5.047	0.375	0.258	116.00
☐	12 x 6	12.750	6.625	10	8 5/8	12.000	6.065	0.375	0.280	118.00
☐	12 x 8	12.750	8.625	10	9	12.000	7.981	0.375	0.322	120.00
☐	12 x 10	12.750	10.750	10	9 1/2	12.000	10.020	0.375	0.365	123.00
☐	14 x 6	14.000	6.625	11	9 3/8	13.250	6.065	0.375	0.280	148.00
☐	14 x 8	14.000	8.625	11	9 3/4	13.250	7.981	0.375	0.322	150.00
☐	14 x 10	14.000	10.750	11	10 1/8	13.250	10.020	0.375	0.365	154.00
☐	14 x 12	14.000	12.750	11	10 5/8	13.250	12.000	0.375	0.375	157.00
☐	16 x 6	16.000	6.625	12	10 3/8	15.250	6.065	0.375	0.280	184.00
☐	16 x 8	16.000	8.625	12	10 3/4	15.250	7.981	0.375	0.322	187.00
☐	16 x 10	16.000	10.750	12	11 1/8	15.250	10.020	0.375	0.365	189.00
☐	16 x 12	16.000	12.750	12	11 3/8	15.250	12.000	0.375	0.375	193.00
☐	16 x 14	16.000	14.000	12	12	15.250	13.250	0.375	0.375	198.00
☐	18 x 8	18.000	8.625	13 1/2	11 3/4	17.250	7.981	0.375	0.322	240.00
☐	18 x 10	18.000	10.750	13 1/2	12 1/8	17.250	10.020	0.375	0.365	243.00
☐	18 x 12	18.000	12.750	13 1/2	12 3/8	17.250	12.000	0.375	0.375	246.00
☐	18 x 14	18.000	14.000	13 1/2	13	17.250	13.250	0.375	0.375	251.00
☐	18 x 16	18.000	16.000	13 1/2	13	17.250	15.250	0.375	0.375	257.00
☐	20 x 8	20.000	8.625	15	12 3/4	19.250	7.981	0.375	0.322	297.00
☐	20 x 10	20.000	10.750	15	13 1/8	19.250	10.020	0.375	0.365	300.00
☐	20 x 12	20.000	12.750	15	13 3/8	19.250	12.000	0.375	0.375	304.00
☐	20 x 14	20.000	14.000	15	14	19.250	13.250	0.375	0.375	308.00
☐	20 x 16	20.000	16.000	15	14	19.250	15.250	0.375	0.375	315.00
☐	20 x 18	20.000	18.000	15	14 1/2	19.250	17.250	0.375	0.375	322.00
☐	24 x 10	24.000	10.750	17	15 1/8	23.250	10.020	0.375	0.375	413.00
☐	24 x 12	24.000	12.750	17	15 3/8	23.250	12.000	0.375	0.375	418.00
☐	24 x 14	24.000	14.000	17	16	23.250	13.250	0.375	0.375	423.00
☐	24 x 16	24.000	16.000	17	16	23.250	15.250	0.375	0.375	428.00
☐	24 x 18	24.000	18.000	17	16 1/2	23.250	17.250	0.375	0.375	438.00
☐	24 x 20	24.000	20.000	17	17	23.250	19.250	0.375	0.375	448.00

ss wld ftg and pipe conform to ASTM A403 & MSS SP-43; dimensionally, all ftg conform to ASME B16.9
(≠ Wall) & MSS SP-43

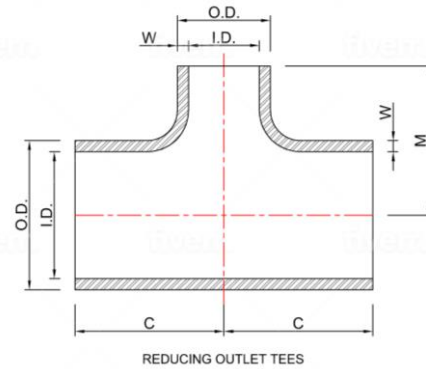


Project Name: _____

Job #: _____

ASTM A403, B16.9

REDUCING TEES



Grade: ☐ 304L ☐ 316L ☐ _____

Seam: ☐ Welded ☐ Seamless ☐ WPWX

Source: ☐ Import ☐ Domestic ☐ BAA ☐ AIS ☐ _____

DIMENSIONS

UOM: Inches/LBS

SELECT	NOMINAL PIPE SIZE Run x Outlet	OUTSIDE DIAMETER RUN (O.D.)	OUTSIDE DIAMETER OUTLET (O.D.)	CENTER TO END RUN (C)	CENTER TO END OUTLET (M)	SCHEDULE 80S ☐ < SELECT				
						Inside Diameter Run (I.D.)	Inside Diameter Outlet (I.D.)	Wall Thickness Run (W)	Wall Thickness Outlet (W)	Approx Weight
☐	½ x ¼	0.840	0.540	1	1	0.546	0.302	0.147	0.119	0.25
☐	½ x ⅜	0.840	0.675	1	1	0.546	0.423	0.147	0.126	0.27
☐	¾ x ⅜	1.050	0.675	1 ⅛	1 ⅛	0.742	0.423	0.154	0.126	0.38
☐	¾ x ½	1.050	0.840	1 ⅛	1 ⅛	0.742	0.546	0.154	0.147	0.40
☐	1 x ⅜	1.315	0.675	1 ½	1 ½	0.957	0.423	0.179	0.126	0.73
☐	1 x ½	1.315	0.840	1 ½	1 ½	0.957	0.546	0.179	0.147	0.75
☐	1 x ¾	1.315	1.050	1 ½	1 ½	0.957	0.742	0.179	0.154	0.76
☐	1 ¼ x ½	1.660	0.840	1 ⅞	1 ⅞	1.278	0.546	0.191	0.147	1.29
☐	1 ¼ x ¾	1.660	1.050	1 ⅞	1 ⅞	1.278	0.742	0.191	0.154	1.32
☐	1 ¼ x 1	1.660	1.315	1 ⅞	1 ⅞	1.278	0.957	0.191	0.179	1.35
☐	1 ½ x ½	1.900	0.840	2 ¼	2 ¼	1.500	0.546	0.200	0.147	1.91
☐	1 ½ x ¾	1.900	1.050	2 ¼	2 ¼	1.500	0.742	0.200	0.154	1.93
☐	1 ½ x 1	1.900	1.315	2 ¼	2 ¼	1.500	0.957	0.200	0.179	1.98
☐	1 ½ x 1 ¼	1.900	1.660	2 ¼	2 ¼	1.500	1.278	0.200	0.191	2.02
☐	2 x ¾	2.375	1.050	2 ½	1 ¾	1.939	0.742	0.218	0.154	2.97
☐	2 x 1	2.375	1.315	2 ½	2	1.939	0.957	0.218	0.179	3.01
☐	2 x 1 ½	2.375	1.660	2 ½	2 ¼	1.939	1.278	0.218	0.191	3.08
☐	2 x 1 ¾	2.375	1.900	2 ½	2 ⅝	1.939	1.500	0.218	0.200	3.15
☐	2 ½ x 1	2.875	1.315	3	2 ¼	2.323	0.957	0.276	0.179	5.86
☐	2 ½ x 1 ¼	2.875	1.660	3	2 ½	2.323	1.278	0.276	0.191	5.93
☐	2 ½ x 1 ½	2.875	1.900	3	2 ⅝	2.323	1.500	0.276	0.200	6.07
☐	2 ½ x 2	2.875	2.375	3	2 ¾	2.323	1.939	0.276	0.218	6.21
☐	3 x 1	3.500	1.315	3 ⅜	2 ⅝	2.900	0.957	0.300	0.179	8.23
☐	3 x 1 ¼	3.500	1.660	3 ⅜	2 ¾	2.900	1.278	0.300	0.191	8.33
☐	3 x 1 ½	3.500	1.900	3 ⅜	2 ⅞	2.900	1.500	0.300	0.200	8.43
☐	3 x 2	3.500	2.375	3 ⅜	3	2.900	1.939	0.300	0.218	8.62
☐	3 x 2 ½	3.500	2.875	3 ⅜	3 ¼	2.900	2.323	0.300	0.276	8.82
☐	3 ½ x 1 ½	4.000	1.900	3 ¾	3 ⅞	3.364	1.500	0.318	0.200	10.20
☐	3 ½ x 2	4.000	2.375	3 ¾	3 ¾	3.364	1.939	0.318	0.218	10.32

ss wld ftg and pipe conform to ASTM A403 & MSS SP-43; dimensionally, all ftg conform to ASME B16.9
(≠ Wall) & MSS SP-43

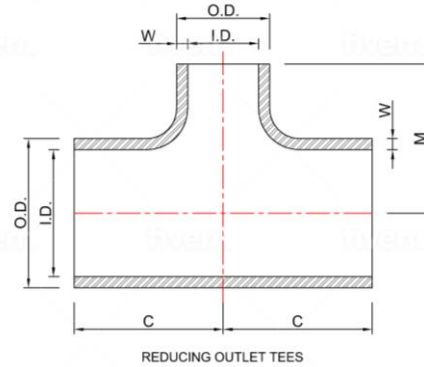
SELECT	NOMINAL PIPE SIZE Run x Outlet	OUTSIDE DIAMETER RUN (O.D.)	OUTSIDE DIAMETER OUTLET (O.D.)	CENTER TO END RUN (C)	CENTER TO END OUTLET (M)	SCHEDULE 80S ☐ < SELECT				Approx Weight
						Inside Diameter Run (I.D.)	Inside Diameter Outlet (I.D.)	Wall Thickness Run (W)	Wall Thickness Outlet (W)	
☐	3 ½ x 2 ½	4.000	2.875	3 ¾	3 ½	3.364	2.323	0.318	0.276	10.56
☐	3 ½ x 3	4.000	3.500	3 ¾	3 ¾	3.364	2.900	0.318	0.300	10.80
☐	4 x 1 ½	4.500	1.900	4 ¼	3 ¾	3.826	1.500	0.337	0.200	14.28
☐	4 x 2	4.500	2.375	4 ¼	3 ½	3.826	1.939	0.337	0.218	14.45
☐	4 x 2 ½	4.500	2.875	4 ¼	3 ¾	3.826	2.323	0.337	0.276	14.62
☐	4 x 3	4.500	3.500	4 ¼	3 ¾	3.826	2.900	0.337	0.300	14.96
☐	4 x 3 ½	4.500	4.000	4 ¼	4	3.826	3.364	0.337	0.318	15.30
☐	5 x 2	5.563	2.375	4 ¾	4 ¼	4.813	1.939	0.375	0.337	21.00
☐	5 x 2 ½	5.563	2.875	4 ¾	4 ¾	4.813	2.323	0.375	0.276	21.25
☐	5 x 3	5.563	3.500	4 ¾	4 ¾	4.813	2.900	0.375	0.300	21.50
☐	5 x 3 ½	5.563	4.000	4 ¾	4 ½	4.813	3.364	0.375	0.318	22.00
☐	5 x 4	5.563	4.500	4 ¾	4 ¾	4.813	3.826	0.375	0.337	22.50
☐	6 x 2 ½	6.625	2.875	5 ¾	4 ¾	5.761	2.323	0.432	0.276	25.20
☐	6 x 3	6.625	3.500	5 ¾	4 ¾	5.761	2.900	0.432	0.300	25.50
☐	6 x 3 ½	6.625	4.000	5 ¾	5	5.761	3.364	0.432	0.318	25.80
☐	6 x 4	6.625	4.500	5 ¾	5 ½	5.761	3.826	0.432	0.337	26.40
☐	6 x 5	6.625	5.563	5 ¾	5 ¾	5.761	4.813	0.432	0.375	27.00
☐	8 x 3	8.625	3.500	7	6	7.625	2.900	0.500	0.300	52.08
☐	8 x 3 ½	8.625	4.000	7	6	7.625	3.364	0.500	0.318	52.70
☐	8 x 4	8.625	4.500	7	6 ¼	7.625	3.826	0.500	0.337	53.32
☐	8 x 5	8.625	5.563	7	6 ¾	7.625	4.813	0.500	0.375	54.56
☐	8 x 6	8.625	6.625	7	6 ¾	7.625	5.761	0.500	0.432	55.80
☐	10 x 4	10.750	4.500	8 ½	7 ¼	9.750	3.826	0.500	0.337	93.50
☐	10 x 5	10.750	5.563	8 ½	7 ½	9.750	4.813	0.500	0.375	94.60
☐	10 x 6	10.750	6.625	8 ½	7 ¾	9.750	5.761	0.500	0.432	96.80
☐	10 x 8	10.750	8.625	8 ½	8	9.750	7.625	0.500	0.500	99.00
☐	12 x 5	12.750	5.563	10	8 ½	11.750	4.813	0.500	0.375	157.00
☐	12 x 6	12.750	6.625	10	8 ¾	11.750	5.761	0.500	0.432	159.00
☐	12 x 8	12.750	8.625	10	9	11.750	7.625	0.500	0.500	163.00
☐	12 x 10	12.750	10.750	10	9 ½	11.750	9.750	0.500	0.500	166.00
☐	14 x 6	14.000	6.625	11	9 ¾	13.000	5.761	0.500	0.432	178.00
☐	14 x 8	14.000	8.625	11	9 ¾	13.000	7.625	0.500	0.500	180.00
☐	14 x 10	14.000	10.750	11	10 ¼	13.000	9.750	0.500	0.500	185.00
☐	14 x 12	14.000	12.750	11	10 ¾	13.000	11.750	0.500	0.500	189.00
☐	16 x 6	16.000	6.625	12	10 ¾	15.000	5.761	0.500	0.432	222.00
☐	16 x 8	16.000	8.625	12	10 ¾	15.000	7.625	0.500	0.500	225.00
☐	16 x 10	16.000	10.750	12	11 ¼	15.000	9.750	0.500	0.500	228.00
☐	16 x 12	16.000	12.750	12	11 ¾	15.000	11.750	0.500	0.500	233.00
☐	16 x 14	16.000	14.000	12	12	15.000	13.000	0.500	0.500	238.00
☐	18 x 8	18.000	8.625	13 ½	11 ¾	17.000	7.625	0.500	0.500	289.00
☐	18 x 10	18.000	10.750	13 ½	12 ¼	17.000	9.750	0.500	0.500	292.00
☐	18 x 12	18.000	12.750	13 ½	12 ¾	17.000	11.750	0.500	0.500	296.00
☐	18 x 14	18.000	14.000	13 ½	13	17.000	13.000	0.500	0.500	303.00
☐	18 x 16	18.000	16.000	13 ½	13	17.000	15.000	0.500	0.500	309.00
☐	20 x 8	20.000	8.625	15	12 ¾	19.000	7.625	0.500	0.500	357.00
☐	20 x 10	20.000	10.750	15	13 ¼	19.000	9.750	0.500	0.500	361.00
☐	20 x 12	20.000	12.750	15	13 ¾	19.000	11.750	0.500	0.500	365.00
☐	20 x 14	20.000	14.000	15	14	19.000	13.000	0.500	0.500	370.00
☐	20 x 16	20.000	16.000	15	14	19.000	15.000	0.500	0.500	378.00
☐	20 x 18	20.000	18.000	15	14 ½	19.000	17.000	0.500	0.500	387.00
☐	24 x 10	24.000	10.750	17	15 ¼	23.000	9.750	0.500	0.500	498.00
☐	24 x 12	24.000	12.750	17	15 ¾	23.000	11.750	0.500	0.500	504.00
☐	24 x 14	24.000	14.000	17	16	23.000	13.000	0.500	0.500	510.00
☐	24 x 16	24.000	16.000	17	16	23.000	15.000	0.500	0.500	516.00
☐	24 x 18	24.000	18.000	17	16 ½	23.000	17.000	0.500	0.500	528.00
☐	24 x 20	24.000	20.000	17	17	23.000	19.000	0.500	0.500	540.00

ss wld ftg and pipe conform to ASTM A403 & MSS SP-43; dimensionally, all ftg conform to ASME B16.9
(≠ Wall) & MSS SP-43

Project Name: _____
Job #: _____

ASTM A403, B16.9

REDUCING TEES



Grade: ☐ 304L ☐ 316L ☐ _____
Seam: ☐ Welded ☐ Seamless ☐ WPWX
Source: ☐ Import ☐ Domestic ☐ BAA ☐ AIS ☐ _____

DIMENSIONS

UOM: Inches/LBS

SELECT	NOMINAL PIPE SIZE Run x Outlet	OUTSIDE DIAMETER RUN (O.D.)	OUTSIDE DIAMETER OUTLET (O.D.)	CENTER TO END RUN (C)	CENTER TO END OUTLET (M)	SCHEDULE 160S ☐ <- SELECT				
						Inside Diameter Run (I.D.)	Inside Diameter Outlet (I.D.)	Wall Thickness Run (W)	Wall Thickness Outlet (W)	Approx Weight
☐	1/2 x 1/4	0.840	0.540	1	1	----	----	----	----	----
☐	1/2 x 3/8	0.840	0.675	1	1	----	----	----	----	----
☐	3/4 x 3/8	1.050	0.675	1 1/8	1 1/8	0.612	0.301	0.219	0.187	0.55
☐	3/4 x 1/2	1.050	0.840	1 1/8	1 1/8	0.612	0.466	0.219	0.187	0.57
☐	1 x 3/8	1.315	0.675	1 1/2	1 1/2	0.815	0.301	0.250	0.187	1.02
☐	1 x 1/2	1.315	0.840	1 1/2	1 1/2	0.815	0.466	0.250	0.187	1.04
☐	1 x 3/4	1.315	1.050	1 1/2	1 1/2	0.815	0.614	0.250	0.218	1.07
☐	1 1/4 x 1/2	1.660	0.840	1 7/8	1 7/8	1.160	0.466	0.250	0.187	1.69
☐	1 1/4 x 3/4	1.660	1.050	1 7/8	1 7/8	1.160	0.614	0.250	0.218	1.73
☐	1 1/4 x 1	1.660	1.315	1 7/8	1 7/8	1.160	0.815	0.250	0.250	1.77
☐	1 1/2 x 1/2	1.900	0.840	2 1/4	2 1/4	1.338	0.466	0.281	0.187	2.67
☐	1 1/2 x 3/4	1.900	1.050	2 1/4	2 1/4	1.338	0.614	0.281	0.218	2.71
☐	1 1/2 x 1	1.900	1.315	2 1/4	2 1/4	1.338	0.815	0.281	0.250	2.77
☐	1 1/2 x 1 1/4	1.900	1.660	2 1/4	2 1/4	1.338	1.160	0.281	0.250	2.83
☐	2 x 3/4	2.375	1.050	2 1/2	1 3/4	1.689	0.614	0.343	0.218	4.67
☐	2 x 1	2.375	1.315	2 1/2	2	1.689	0.815	0.343	0.250	4.73
☐	2 x 1 1/4	2.375	1.660	2 1/2	2 1/4	1.689	1.160	0.343	0.250	4.84
☐	2 x 1 1/2	2.375	1.900	2 1/2	2 3/8	1.689	1.338	0.343	0.281	4.95
☐	2 1/2 x 1	2.875	1.315	3	2 1/4	2.125	0.815	0.375	0.250	7.97
☐	2 1/2 x 1 1/4	2.875	1.660	3	2 1/2	2.125	1.160	0.375	0.250	8.06
☐	2 1/2 x 1 1/2	2.875	1.900	3	2 3/8	2.125	1.338	0.375	0.281	8.25
☐	2 1/2 x 2	2.875	2.375	3	2 3/4	2.125	1.689	0.375	0.343	8.44
☐	3 x 1	3.500	1.315	3 3/8	2 3/8	2.624	0.815	0.438	0.250	12.02
☐	3 x 1 1/4	3.500	1.660	3 3/8	2 3/4	2.624	1.160	0.438	0.250	2.16
☐	3 x 1 1/2	3.500	1.900	3 3/8	2 7/8	2.624	1.338	0.438	0.281	12.30
☐	3 x 2	3.500	2.375	3 3/8	3	2.624	1.689	0.438	0.343	12.59
☐	3 x 2 1/2	3.500	2.875	3 3/8	3 1/4	2.624	2.125	0.438	0.375	12.88
☐	3 1/2 x 1 1/2	4.000	1.900	3 3/4	3 1/8	----	----	----	----	----
☐	3 1/2 x 2	4.000	2.375	3 3/4	3 1/4	----	----	----	----	----

ss wld ftg and pipe conform to ASTM A403 & MSS SP-43; dimensionally, all ftg conform to ASME B16.9
(= Wall) & MSS SP-43

Project Name: _____
Job #: _____

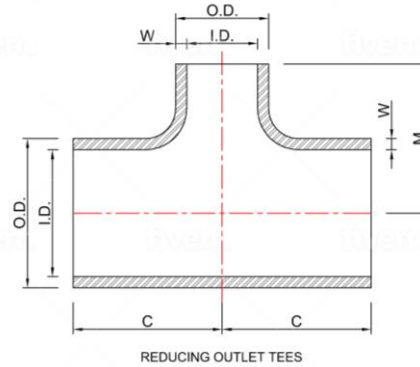
SELECT	NOMINAL PIPE SIZE Run x Outlet	OUTSIDE DIAMETER RUN (O.D.)	OUTSIDE DIAMETER OUTLET (O.D.)	CENTER TO END RUN (C)	CENTER TO END OUTLET (M)	SCHEDULE 160S ☐ < SELECT				
						Inside Diameter Run (I.D.)	Inside Diameter Outlet (I.D.)	Wall Thickness Run (W)	Wall Thickness Outlet (W)	Approx Weight
☐	3 ½ x 2 ½	4.000	2.875	3 ¾	3 ½	----	----	----	----	----
☐	3 ½ x 3	4.000	3.500	3 ¾	3 ⅝	----	----	----	----	----
☐	4 x 1 ½	4.500	1.900	4 ⅞	3 ⅝	3.438	1.338	0.531	0.281	22.56
☐	4 x 2	4.500	2.375	4 ⅞	3 ½	3.438	1.689	0.531	0.343	22.83
☐	4 x 2 ½	4.500	2.875	4 ⅞	3 ¾	3.438	2.125	0.531	0.375	23.10
☐	4 x 3	4.500	3.500	4 ⅞	3 ⅝	3.438	2.624	0.531	0.438	23.63
☐	4 x 3 ½	4.500	4.000	4 ⅞	4	----	----	----	----	----
☐	5 x 2	5.563	2.375	4 ⅞	4 ⅞	4.313	1.689	0.625	0.343	35.07
☐	5 x 2 ½	5.563	2.875	4 ⅞	4 ¾	4.313	2.125	0.625	0.375	35.48
☐	5 x 3	5.563	3.500	4 ⅞	4 ⅝	4.313	2.624	0.625	0.438	35.90
☐	5 x 3 ½	5.563	4.000	4 ⅞	4 ½	----	----	----	----	----
☐	5 x 4	5.563	4.500	4 ⅞	4 ⅞	4.313	3.438	0.625	0.531	37.57
☐	6 x 2 ½	6.625	2.875	5 ⅞	4 ¾	5.187	2.125	0.719	0.375	41.83
☐	6 x 3	6.625	3.500	5 ⅞	4 ⅞	5.187	2.624	0.719	0.438	42.33
☐	6 x 3 ½	6.625	4.000	5 ⅞	5	----	----	----	----	----
☐	6 x 4	6.625	4.500	5 ⅞	5 ⅞	5.187	3.438	0.719	0.531	43.82
☐	6 x 5	6.625	5.563	5 ⅞	5 ⅝	5.187	4.313	0.719	0.625	44.82
☐	8 x 3	8.625	3.500	7	6	6.813	2.624	0.906	0.438	94.00
☐	8 x 3 ½	8.625	4.000	7	6	----	----	----	----	----
☐	8 x 4	8.625	4.500	7	6 ⅞	6.813	3.438	0.906	0.531	96.30
☐	8 x 5	8.625	5.563	7	6 ⅝	6.813	4.313	0.906	0.625	98.50
☐	8 x 6	8.625	6.625	7	6 ⅝	6.813	5.187	0.906	0.719	101.00
☐	10 x 4	10.750	4.500	8 ½	7 ¾	8.500	3.438	1.125	0.531	210.00
☐	10 x 5	10.750	5.563	8 ½	7 ½	8.500	4.313	1.125	0.625	212.00
☐	10 x 6	10.750	6.625	8 ½	7 ⅝	8.500	5.187	1.125	0.719	217.00
☐	10 x 8	10.750	8.625	8 ½	8	8.500	6.813	1.125	0.906	222.00
☐	12 x 5	12.750	5.563	10	8 ½	10.126	4.313	1.312	0.625	411.00
☐	12 x 6	12.750	6.625	10	8 ⅝	10.126	5.187	1.312	0.719	416.00
☐	12 x 8	12.750	8.625	10	9	10.126	6.813	1.312	0.906	426.00
☐	12 x 10	12.750	10.750	10	9 ½	10.126	8.500	1.312	1.125	435.00
☐	14 x 6	14.000	6.625	11	9 ⅝	11.188	5.187	1.406	0.719	----
☐	14 x 8	14.000	8.625	11	9 ¾	11.188	6.813	1.406	0.906	----
☐	14 x 10	14.000	10.750	11	10 ⅞	11.188	8.500	1.406	1.125	----
☐	14 x 12	14.000	12.750	11	10 ⅝	11.188	10.126	1.406	1.312	----
☐	16 x 6	16.000	6.625	12	10 ⅝	12.812	5.187	1.594	0.719	----
☐	16 x 8	16.000	8.625	12	10 ¾	12.812	6.813	1.594	0.906	----
☐	16 x 10	16.000	10.750	12	11 ⅞	12.812	8.500	1.594	1.125	----
☐	16 x 12	16.000	12.750	12	11 ⅝	12.812	10.126	1.594	1.312	----
☐	16 x 14	16.000	14.000	12	12	12.812	11.188	1.594	1.406	----
☐	18 x 8	18.000	8.625	13 ½	11 ¾	14.438	6.813	1.781	0.906	----
☐	18 x 10	18.000	10.750	13 ½	12 ⅞	14.438	8.500	1.781	1.125	----
☐	18 x 12	18.000	12.750	13 ½	12 ⅝	14.438	10.126	1.781	1.312	----
☐	18 x 14	18.000	14.000	13 ½	13	14.438	11.188	1.781	1.406	----
☐	18 x 16	18.000	16.000	13 ½	13	14.438	12.812	1.781	1.594	----
☐	20 x 8	20.000	8.625	15	12 ¾	16.062	6.813	1.969	0.906	----
☐	20 x 10	20.000	10.750	15	13 ⅞	16.062	8.500	1.969	1.125	----
☐	20 x 12	20.000	12.750	15	13 ⅝	16.062	10.126	1.969	1.312	----
☐	20 x 14	20.000	14.000	15	14	16.062	11.188	1.969	1.406	----
☐	20 x 16	20.000	16.000	15	14	16.062	12.812	1.969	1.594	----
☐	20 x 18	20.000	18.000	15	14 ½	16.062	14.438	1.969	1.781	----
☐	24 x 10	24.000	10.750	17	15 ⅞	19.312	8.500	2.344	1.125	----
☐	24 x 12	24.000	12.750	17	15 ⅝	19.312	10.126	2.344	1.312	----
☐	24 x 14	24.000	14.000	17	16	19.312	11.188	2.344	1.406	----
☐	24 x 16	24.000	16.000	17	16	19.312	12.812	2.344	1.594	----
☐	24 x 18	24.000	18.000	17	16 ½	19.312	14.438	2.344	1.781	----
☐	24 x 20	24.000	20.000	17	17	19.312	16.062	2.344	1.969	----

ss wld ftg and pipe conform to ASTM A403 & MSS SP-43; dimensionally, all ftg conform to ASME B16.9
(= Wall) & MSS SP-43

Project Name: _____
Job #: _____

ASTM A403, B16.9

REDUCING TEES



Grade: ☐ 304L ☐ 316L ☐ _____
Seam: ☐ Welded ☐ Seamless ☐ WPWX
Source: ☐ Import ☐ Domestic ☐ BAA ☐ AIS ☐ _____

DIMENSIONS

UOM: Inches/LBS

SELECT	NOMINAL PIPE SIZE Run x Outlet	OUTSIDE DIAMETER RUN (O.D.)	OUTSIDE DIAMETER OUTLET (O.D.)	CENTER TO END RUN (C)	CENTER TO END OUTLET (M)	XX STRONG WALL ☐ <- SELECT				
						Inside Diameter Run (I.D.)	Inside Diameter Outlet (I.D.)	Wall Thickness Run (W)	Wall Thickness Outlet (W)	Approx Weight
☐	1/2 x 1/4	0.840	0.540	1	1	----	----	----	----	----
☐	1/2 x 3/8	0.840	0.675	1	1	----	----	----	----	----
☐	3/4 x 3/8	1.050	0.675	1 1/8	1 1/8	----	----	----	----	----
☐	3/4 x 1/2	1.050	0.840	1 1/8	1 1/8	0.434	0.252	0.308	0.294	0.81
☐	1 x 3/8	1.315	0.675	1 1/2	1 1/2	----	----	----	----	----
☐	1 x 1/2	1.315	0.840	1 1/2	1 1/2	0.599	0.252	0.358	0.294	1.49
☐	1 x 3/4	1.315	1.050	1 1/2	1 1/2	0.599	0.434	0.358	0.308	1.53
☐	1 1/4 x 1/2	1.660	0.840	1 7/8	1 7/8	0.896	0.252	0.382	0.294	2.58
☐	1 1/4 x 3/4	1.660	1.050	1 7/8	1 7/8	0.896	0.434	0.382	0.308	2.64
☐	1 1/4 x 1	1.660	1.315	1 7/8	1 7/8	0.896	0.599	0.382	0.358	2.70
☐	1 1/2 x 1/2	1.900	0.840	2 1/4	2 1/4	1.100	0.252	0.400	0.294	3.82
☐	1 1/2 x 3/4	1.900	1.050	2 1/4	2 1/4	1.100	0.434	0.400	0.308	3.87
☐	1 1/2 x 1	1.900	1.315	2 1/4	2 1/4	1.100	0.599	0.400	0.358	3.96
☐	1 1/2 x 1 1/4	1.900	1.660	2 1/4	2 1/4	1.100	0.896	0.400	0.382	4.05
☐	2 x 3/4	2.375	1.050	2 1/2	1 3/4	1.503	0.434	0.436	0.308	5.95
☐	2 x 1	2.375	1.315	2 1/2	2	1.503	0.599	0.436	0.358	6.02
☐	2 x 1 1/4	2.375	1.660	2 1/2	2 1/4	1.503	0.896	0.436	0.382	6.16
☐	2 x 1 1/2	2.375	1.900	2 1/2	2 3/8	1.503	1.110	0.436	0.400	6.30
☐	2 1/2 x 1	2.875	1.315	3	2 1/4	1.771	0.599	0.552	0.358	11.73
☐	2 1/2 x 1 1/4	2.875	1.660	3	2 1/2	1.771	0.896	0.552	0.382	11.87
☐	2 1/2 x 1 1/2	2.875	1.900	3	2 3/8	1.771	1.110	0.552	0.400	12.14
☐	2 1/2 x 2	2.875	2.375	3	2 3/4	1.771	1.503	0.552	0.436	12.42
☐	3 x 1	3.500	1.315	3 3/8	2 3/8	2.300	0.599	0.600	0.358	16.46
☐	3 x 1 1/4	3.500	1.660	3 3/8	2 3/4	2.300	0.896	0.600	0.382	16.66
☐	3 x 1 1/2	3.500	1.900	3 3/8	2 7/8	2.300	1.110	0.600	0.400	16.85
☐	3 x 2	3.500	2.375	3 3/8	3	2.300	1.503	0.600	0.436	17.24
☐	3 x 2 1/2	3.500	2.875	3 3/8	3 1/4	2.300	1.771	0.600	0.552	17.64
☐	3 1/2 x 1 1/2	4.000	1.900	3 3/4	3 1/8	2.728	1.110	0.636	0.400	20.40
☐	3 1/2 x 2	4.000	2.375	3 3/4	3 1/4	2.728	1.503	0.636	0.436	20.64

ss wld ftg and pipe conform to ASTM A403 & MSS SP-43; dimensionally, all ftg conform to ASME B16.9
(= Wall) & MSS SP-43

Project Name: _____
Job #: _____

SELECT	NOMINAL PIPE SIZE Run x Outlet	OUTSIDE DIAMETER RUN (O.D.)	OUTSIDE DIAMETER OUTLET (O.D.)	CENTER TO END RUN (C)	CENTER TO END OUTLET (M)	XX STRONG WALL ☐ < SELECT				
						Inside Diameter Run (I.D.)	Inside Diameter Outlet (I.D.)	Wall Thickness Run (W)	Wall Thickness Outlet (W)	Approx Weight
☐	3 ½ x 2 ½	4.000	2.875	3 ¾	3 ½	2.728	1.771	0.636	0.552	21.12
☐	3 ½ x 3	4.000	3.500	3 ¾	3 ¾	2.728	2.300	0.636	0.600	21.60
☐	4 x 1 ½	4.500	1.900	4 ⅞	3 ¾	3.152	1.100	0.674	0.400	28.56
☐	4 x 2	4.500	2.375	4 ⅞	3 ½	3.152	1.503	0.674	0.436	28.90
☐	4 x 2 ½	4.500	2.875	4 ⅞	3 ¾	3.152	1.771	0.674	0.552	29.24
☐	4 x 3	4.500	3.500	4 ⅞	3 ¾	3.152	2.300	0.674	0.600	29.92
☐	4 x 3 ½	4.500	4.000	4 ⅞	4	3.152	2.728	0.674	0.636	30.60
☐	5 x 2	5.563	2.375	4 ⅞	4 ⅞	4.063	1.503	0.750	0.436	42.00
☐	5 x 2 ½	5.563	2.875	4 ⅞	4 ¾	4.063	1.771	0.750	0.552	42.50
☐	5 x 3	5.563	3.500	4 ⅞	4 ¾	4.063	2.300	0.750	0.600	43.00
☐	5 x 3 ½	5.563	4.000	4 ⅞	4 ½	4.063	2.728	0.750	0.636	44.00
☐	5 x 4	5.563	4.500	4 ⅞	4 ¾	4.063	3.152	0.750	0.674	45.00
☐	6 x 2 ½	6.625	2.875	5 ⅞	4 ¾	4.897	1.771	0.864	0.552	50.40
☐	6 x 3	6.625	3.500	5 ⅞	4 ¾	4.897	2.300	0.864	0.600	51.00
☐	6 x 3 ½	6.625	4.000	5 ⅞	5	4.897	2.728	0.864	0.636	51.60
☐	6 x 4	6.625	4.500	5 ⅞	5 ½	4.897	3.152	0.864	0.674	52.80
☐	6 x 5	6.625	5.563	5 ⅞	5 ¾	4.897	4.063	0.864	0.750	54.00
☐	8 x 3	8.625	3.500	7	6	6.875	2.300	0.875	0.600	90.70
☐	8 x 3 ½	8.625	4.000	7	6	6.875	2.728	0.875	0.636	91.80
☐	8 x 4	8.625	4.500	7	6 ⅞	6.875	3.152	0.875	0.674	92.90
☐	8 x 5	8.625	5.563	7	6 ¾	6.875	4.063	0.875	0.750	95.00
☐	8 x 6	8.625	6.625	7	6 ¾	6.875	4.897	0.875	0.864	97.20
☐	10 x 4	10.750	4.500	8 ½	7 ¼	-----	-----	-----	-----	-----
☐	10 x 5	10.750	5.563	8 ½	7 ½	-----	-----	-----	-----	-----
☐	10 x 6	10.750	6.625	8 ½	7 ¾	-----	-----	-----	-----	-----
☐	10 x 8	10.750	8.625	8 ½	8	-----	-----	-----	-----	-----
☐	12 x 5	12.750	5.563	10	8 ½	-----	-----	-----	-----	-----
☐	12 x 6	12.750	6.625	10	8 ¾	-----	-----	-----	-----	-----
☐	12 x 8	12.750	8.625	10	9	-----	-----	-----	-----	-----
☐	12 x 10	12.750	10.750	10	9 ½	-----	-----	-----	-----	-----
☐	14 x 6	14.000	6.625	11	9 ¾	-----	-----	-----	-----	-----
☐	14 x 8	14.000	8.625	11	9 ¾	-----	-----	-----	-----	-----
☐	14 x 10	14.000	10.750	11	10 ⅞	-----	-----	-----	-----	-----
☐	14 x 12	14.000	12.750	11	10 ¾	-----	-----	-----	-----	-----
☐	16 x 6	16.000	6.625	12	10 ¾	-----	-----	-----	-----	-----
☐	16 x 8	16.000	8.625	12	10 ¾	-----	-----	-----	-----	-----
☐	16 x 10	16.000	10.750	12	11 ⅞	-----	-----	-----	-----	-----
☐	16 x 12	16.000	12.750	12	11 ¾	-----	-----	-----	-----	-----
☐	16 x 14	16.000	14.000	12	12	-----	-----	-----	-----	-----
☐	18 x 8	18.000	8.625	13 ½	11 ¾	-----	-----	-----	-----	-----
☐	18 x 10	18.000	10.750	13 ½	12 ⅞	-----	-----	-----	-----	-----
☐	18 x 12	18.000	12.750	13 ½	12 ¾	-----	-----	-----	-----	-----
☐	18 x 14	18.000	14.000	13 ½	13	-----	-----	-----	-----	-----
☐	18 x 16	18.000	16.000	13 ½	13	-----	-----	-----	-----	-----
☐	20 x 8	20.000	8.625	15	12 ¾	-----	-----	-----	-----	-----
☐	20 x 10	20.000	10.750	15	13 ⅞	-----	-----	-----	-----	-----
☐	20 x 12	20.000	12.750	15	13 ¾	-----	-----	-----	-----	-----
☐	20 x 14	20.000	14.000	15	14	-----	-----	-----	-----	-----
☐	20 x 16	20.000	16.000	15	14	-----	-----	-----	-----	-----
☐	20 x 18	20.000	18.000	15	14 ½	-----	-----	-----	-----	-----
☐	24 x 10	24.000	10.750	17	15 ⅞	-----	-----	-----	-----	-----
☐	24 x 12	24.000	12.750	17	15 ¾	-----	-----	-----	-----	-----
☐	24 x 14	24.000	14.000	17	16	-----	-----	-----	-----	-----
☐	24 x 16	24.000	16.000	17	16	-----	-----	-----	-----	-----
☐	24 x 18	24.000	18.000	17	16 ½	-----	-----	-----	-----	-----
☐	24 x 20	24.000	20.000	17	17	-----	-----	-----	-----	-----

ss wld ftg and pipe conform to ASTM A403 & MSS SP-43; dimensionally, all ftg conform to ASME B16.9
(≠ Wall) & MSS SP-43