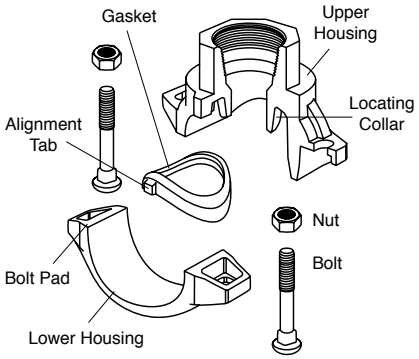
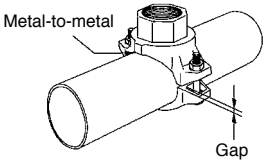
Mechanical Tees

Shurjoint mechanical tees provide a fast and easy mid-point branch outlet, eliminating the need for welding or the use of multiple fittings. The Model M21 features a female threaded outlet and M22 features a grooved end outlet. Model 7721 (female threaded outlet) and 7722 (grooved end outlet) are available in 8" sizes. The Model 723 Saddle-let features a compact-design for making direct connections to sprinkler heads, drop nipples and or gauges.



When bolts are tightened with a proper torque, the outlet housing makes metal to metal contact with the outer surface of the pipe.

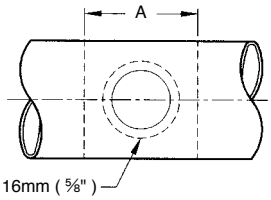


It is normal to see bolt pad gaps

CAUTION The hole must be cleanly cut using the correct size hole-saw and shall have a smooth edge. Never use a torch for cutting a hole.

Hole-cutting

The hole-cut method of pipe preparation is required when using mechanical tees, mechanical crosses, and saddle-lets. The method of pipe preparation requires the cutting or drilling of a specified hole size on the centerline of the pipe. Always use the correct hole saw size as shown in Table 1



and Table 1-b and never use a torch for cutting a hole. After the hole has been cut all rough edges must be removed and the area within 5/8" (16mm) of the hole should be inspected to ensure a clean smooth surface, free of any indentations or projections that could affect proper gasket sealing. The area within the "A" dimension should also be inspected and must be free of dirt, scale or any imperfection that could affect proper seating or assembly of the fitting.

Hole Size: The hole sizes are dictated by the branch size of the mechanical tee.

Table 1 Hole Sizes for Mechanical Tees

unit: mm/in

Branch Size	Hole Dimensions		Surface Preparation "A"
	Hole Saw Size	Max dia. Allowed	
15, 20, 25	38	41	89
½, ¾, 1	1½	1⅝	3½
32, 40	51*	54*	102
1¼, 1½	2	2⅛	4
50	64	67	114
2	2½	2⅝	4½
65	70	73	121
2½	2¾	2⅞	4¾
80	89	92	140
3	3½	3⅝	5½
100	114	118	165
4	4½	4⅝	6½

*See Table 1-b for exception.`

Table 1-b Exception

Run x Branch	Hole Dimensions		Surface Preparation "A"
	Hole Saw Size	Max dia. Allowed	
50 x 32 / 50 x 40	45	47	102
2 x1¼ / 2 x 1½	1¾	1⅞	4

Ridgid Model No. HC-300
Hole Cutting Tool

MODEL

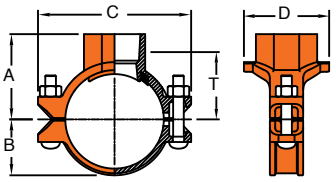
M21 MECHANICAL TEE
FEMALE THREADED OUTLET

Threads are NPT per ANSI B1.20.1 or BSPT per ISO 7. UL/FM working pressure is 20 bar (300 psi). The Model 7721 is available in 8" sizes.

Pressure-Temperature Rating

Nom. Rating	Working Pressure (STD, Roll-grooved)	Max. Service Temperature
Class 150	300 psi @100°F 20 Bar @38°C	EPDM: 230°F / 110°C Nitrile: 180°F / 82°C

*Working pressure is based on standard wall carbon steel pipe.
*Proof test pressure: 1.5 times the working pressure, non-shock cold water.
*Burst pressure is engineered minimum 3 times the working pressure.



Nominal Size Run x Branch mm / in	Pipe O. D. mm / in	Hole Dia. +3.2, -0 / +0.13, -0 mm / in	Dimensions					Bolt Size mm / in	Weight Kgs / Lbs
			T* mm / in	A mm / in	B mm / in	C mm / in	D mm / in		
50 x 15	60.3 x 21.3	38	50	63.5	38.1	115.9	81	M10 x 55	0.99
2 x ½	2.375 x 0.840	1.50	1.97	2.50	1.50	4.56	3.19	⅜ x 2⅛	2.18
50 x 20	60.3 x 26.7	38	50	63.5	38.1	115.9	81	M10 x 55	1.01
2 x ¾	2.375 x 1.050	1.50	1.97	2.50	1.50	4.56	3.19	⅜ x 2⅛	2.22
50 x 25	60.3 x 33.4	38	47	63.5	38.1	115.9	81	M10 x 55	1.09
2 x 1	2.375 x 1.315	1.50	1.85	2.50	1.50	4.56	3.19	⅜ x 2⅛	2.40
50 x 32	60.3 x 42.2	[45]	52	73.0	38.1	115.9	84	M10 x 55	1.26
2 x 1¼	2.375 x 1.660	[1.75]	2.05	2.87	1.50	4.56	3.31	⅜ x 2⅛	2.77
50 x 40	60.3 x 48.3	[45]	52	76.2	38.1	115.9	84	M10 x 55	1.37
2 x 1½	2.375 x 1.900	[1.75]	2.08	3.00	1.50	4.56	3.31	⅜ x 2⅛	3.01
65 x 15	73.0 x 21.3	38	56	69.9	44.5	141.3	81	M12 x 60	1.20
2.5 x ½	2.875 x 0.840	1.50	2.20	2.75	1.75	5.56	3.19	½ x 2⅜	2.60
65 x 20	73.0 x 26.7	38	56	69.9	44.5	141.3	81	M12 x 60	1.20
2.5 x ¾	2.875 x 1.050	1.50	2.20	2.75	1.75	5.56	3.19	½ x 2⅜	2.70
65 x 25	73.0 x 33.4	38	53	69.9	44.5	141.3	81	M12 x 60	1.30
2.5 x 1	2.875 x 1.315	1.50	2.09	2.75	1.75	5.56	3.19	½ x 2⅜	2.86
65 x 32	73.0 x 42.2	51	58	76.2	44.5	141.3	94	M12 x 60	1.46
2.5 x 1¼	2.875 x 1.660	2.00	2.28	3.00	1.75	5.56	3.70	½ x 2⅜	3.21
65 x 40	73.0 x 48.3	51	58	76.2	44.5	141.3	94	M12 x 60	1.56
2.5 x 1½	2.875 x 1.900	2.00	2.28	3.00	1.75	5.56	3.70	½ x 2⅜	3.43
76.1 x 15	76.1 x 21.3	38	56	69.9	46.1	144.5	81	M12 x 60	1.20
	3.000 x 0.840	1.50	2.20	2.75	1.81	5.69	3.19	½ x 2⅜	2.64
76.1 x 20	76.1 x 26.7	38	56	69.9	46.1	144.5	81	M12 x 60	1.20
	3.000 x 1.050	1.50	2.20	2.75	1.81	5.69	3.19	1/2 x 2-3/8	2.64
76.1 x 25	76.1 x 33.4	38	53	69.9	46.1	144.5	81	M12 x 60	1.30
	3.000 x 1.315	1.50	2.09	2.75	1.81	5.69	3.19	½ x 2⅜	2.86
76.1 x 32	76.1 x 42.2	51	58	76.2	46.1	144.5	94	M12 x 60	1.46
	3.000 x 1.660	2.00	2.28	3.00	1.81	5.69	3.70	½ x 2⅜	3.21
76.1 x 40	76.1 x 48.3	51	58	76.2	46.1	144.5	94	M12 x 60	1.56
	3.000 x 1.900	2.00	2.28	3.00	1.81	5.69	3.70	½ x 2⅜	3.43
80 x 15	88.9 x 21.3	38	60	77.8	53.2	157.2	81	M12 x 75	1.44
3 x ½	3.500 x 0.840	1.50	2.36	3.06	2.09	6.19	3.19	½ x 3	3.17
80 x 20	88.9 x 26.7	38	59	77.8	53.2	157.2	81	M12 x 75	1.46
3 x ¾	3.500 x 1.050	1.50	2.32	3.06	2.09	6.19	3.19	½ x 3	3.21
80 x 25	88.9 x 33.4	38	61	77.8	53.2	157.2	81	M12 x 75	1.53
3 x 1	3.500 x 1.315	1.50	2.40	3.06	2.09	6.19	3.19	½ x 3	3.37
80 x 32	88.9 x 42.2	51	65	82.6	53.2	157.2	94	M12 x 75	1.81
3 x 1¼	3.500 x 1.660	2.00	2.56	3.25	2.09	6.19	3.70	½ x 3	3.98
80 x 40	88.9 x 48.3	51	71	88.9	53.2	157.2	94	M12 x 75	1.88
3 x 1½	3.500 x 1.900	2.00	2.80	3.50	2.09	6.19	3.70	½ x 3	4.14
80 x 50	88.9 x 60.3	64	70	88.9	53.2	157.2	108	M12 x 75	2.07
3 x 2	3.500 x 2.375	2.50	2.76	3.50	2.09	6.19	4.25	½ x 3	4.55
100 x 15	114.3 x 21.3	38	72	93.7	66.7	182.6	79.4	M12 x 75	1.63
4 x ½	3.500 x 0.840	1.50	2.83	3.69	2.63	7.19	3.13	½ x 3	3.59
100 x 20	114.3 x 26.7	38	71	93.7	66.7	182.6	79.4	M12 x 75	1.64
4 x ¾	4.500 x 1.050	1.50	2.79	3.69	2.63	7.19	3.13	½ x 3	3.61
100 x 25	114.3 x 33.4	38	73	93.7	66.7	182.6	79.4	M12 x 75	1.70
4 x 1	4.500 x 1.315	1.50	2.87	3.69	2.63	7.19	3.13	½ x 3	3.74
100 x 32	114.3 x 42.2	51	78	92.1	66.7	182.6	101.6	M12 x 75	1.90
4 x 1¼	4.500 x 1.660	2.00	3.07	3.63	2.63	7.19	4.00	½ x 3	4.18
100 x 40	114.3 x 48.3	51	84	92.1	66.7	182.6	101.6	M12 x 75	2.04
4 x 1½	4.500 x 1.900	2.00	3.31	3.63	2.63	7.19	4.00	½ x 3	4.49

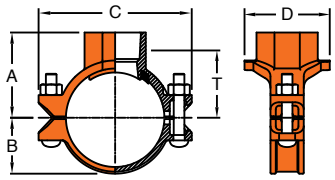
1. Hole diameters listed are suggested hole saw diameters. 2. *T: Take-out (Center of run to end of pipe to be engaged)
3. Special caution is required to some exceptional hole sizes shown in [ ].

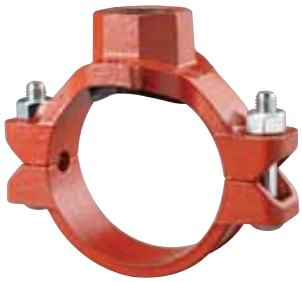
Continued on next page

MODEL

M21 & 7721 MECHANICAL TEES
FEMALE THREADED OUTLET

The **Shurjoint** Model M21 & 7721 mechanical tees provides a fast and easy mid-pipe threaded branch outlet. Threads are NPT per ANSI B1.20.1 or BSPT per ISO 7. UL/FM working pressure is 20 bar (300 psi).





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Nominal Size Run x Branch mm / in	Pipe O. D. mm / in	Hole Dia. +3.2, -0 / +0.13, -0 mm / in	Dimensions					Bolt Size mm / in	Weight Kgs / Lbs
			T* mm / in	A mm / in	B mm / in	C mm / in	D mm / in		
100 x 50	114.3 x 60.3	64	83	101.6	66.7	182.6	101.6	M12 x 75	2.27
4 x 2	4.500 x 2.375	2.50	3.27	4.00	2.63	7.19	4.00	½ x 3	5.00
100 x 65	114.3 x 73.0	70	73	101.6	66.7	182.6	112.7	M12 x 75	2.47
4 x 2½	4.500 x 2.875	2.75	2.87	4.00	2.63	7.19	4.44	½ x 3	5.43
100 x 76.1	114.3 x 76.1	70	73	101.6	66.7	182.6	112.7	M12 x 75	2.57
	4.500 x 3.000	2.75	2.87	4.00	2.63	7.19	4.44	½ x 3	5.65
100 x 80	114.3 x 88.9	89	84	104.8	66.7	182.6	128.6	M12 x 75	2.91
4 x 3	4.500 x 3.500	3.50	3.31	4.13	2.63	7.19	5.06	½ x 3	6.41
139.7 x 50	139.7 x 60.3	64	83	120.7	81.0	223.8	106.4	M16 x 90	2.90
	5.500 x 2.375	2.50	3.27	4.75	3.19	8.81	4.19	⅝ x 3½	6.38
139.7 x 76.1	139.7 x 76.1	70	93	120.7	81.0	223.8	115.9	M16 x 90	3.40
	5.500 x 3.000	2.75	3.67	4.75	3.19	8.81	4.57	⅝ x 3½	7.40
139.7 x 80	139.7 x 88.9	89	97	127.0	81.0	223.8	131.8	M16 x 90	3.82
	5.500 x 3.500	3.50	3.82	4.75	3.19	8.81	5.19	⅝ x 3½	8.41
125 x 50	141.3 x 60.3	64	83	120.7	81.0	223.8	106.4	M16 x 90	2.90
5 x 2	5.563 x 2.375	2.50	3.27	4.75	3.19	8.81	4.19	⅝ x 3½	6.38
125 x 65	141.3 x 73.0	70	93	120.7	81.0	223.8	112.7	M16 x 90	3.39
5 x 2½	5.563 x 2.875	2.75	3.67	4.75	3.19	8.81	4.44	⅝ x 3½	7.46
125 x 80	141.3 x 88.9	89	97	127.0	81.0	223.8	131.8	M16 x 90	3.82
5 x 3	5.563 x 3.500	3.50	3.82	4.75	3.19	8.81	5.19	⅝ x 3½	8.40
165.1 x 32	165.1 x 42.2	51	112	130.2	94.5	250.8	92.1	M16 x 90	2.53
	6.500 x 1.660	2.00	4.41	5.13	3.72	9.87	3.63	⅝ x 3½	5.57
165.1 x 40	165.1 x 48.3	51	112	130.2	94.5	250.8	92.1	M16 x 90	3.00
	6.500 x 1.900	2.00	4.41	5.13	3.72	9.87	3.63	⅝ x 3½	6.60
165.1 x 50	165.1 x 60.3	64	111	130.2	94.5	250.8	106.4	M16 x 90	3.17
	6.500 x 2.375	2.50	4.37	5.13	3.72	9.87	4.19	⅝ x 3½	6.97
165.1 x 65	165.1 x 73.0	70	101	130.2	94.5	250.8	112.7	M16 x 90	3.58
	6.500 x 2.875	2.75	3.98	5.13	3.72	9.87	4.44	⅝ x 3½	7.88
165.1 x 76.1	165.1 x 76.1	70	101	130.2	94.5	250.8	115.9	M16 x 90	3.75
	6.500 x 2.875	2.75	3.98	5.13	3.72	9.87	4.56	⅝ x 3½	8.25
165.1 x 80	165.1 x 88.9	89	110	139.7	94.5	250.8	131.8	M16 x 90	4.13
	6.500 x 3.500	3.50	4.33	5.50	3.72	9.87	5.19	5/8 x 3-1/2	9.09
165.1 x 100	165.1 x 114.3	114	113	146.1	94.5	250.8	158.8	M16 x 90	4.77
	6.500 x 4.500	4.50	4.45	5.75	3.72	9.87	6.25	⅝ x 3½	10.50
150 x 32	168.3 x 42.2	51	112	130.2	94.5	250.8	92.1	M16 x 90	2.91
6 x 1¼	6.625 x 1.660	2.00	4.41	5.13	3.72	9.87	3.63	⅝ x 3½	6.41
150 x 40	168.3 x 48.3	51	112	130.2	94.5	250.8	92.1	M16 x 90	2.99
6 x 1½	6.625 x 1.900	2.00	4.41	5.13	3.72	9.87	3.63	⅝ x 3½	6.58
150 x 50	168.3 x 60.3	64	111	130.2	94.5	250.8	106.4	M16 x 90	3.18
6 x 2	6.625 x 2.375	2.50	4.37	5.13	3.72	9.87	4.19	⅝ x 3½	7.00
150 x 65	168.3 x 73.0	70	101	130.2	94.5	250.8	112.7	M16 x 90	3.58
6 x 2½	6.625 x 2.875	2.75	3.98	5.13	3.72	9.87	4.44	⅝ x 3½	7.88
150 x 76.1	168.3 x 76.1	70	101	130.2	94.5	250.8	115.9	M16 x 90	3.58
	6.625 x 2.875	2.75	3.98	5.13	3.72	9.87	4.56	⅝ x 3½	7.88
150 x 80	168.3 x 88.9	89	110	139.7	94.5	250.8	131.8	M16 x 90	4.10
6 x 3	6.625 x 3.500	3.50	4.33	5.50	3.72	9.87	5.19	⅝ x 3½	9.02
150 x 100	168.3 x 114.3	114	113	146.1	94.5	250.8	158.8	M16 x 90	4.76
6 x 4	6.625 x 4.500	4.50	4.45	5.75	3.72	9.87	6.25	⅝ x 3½	10.47

MODEL 7721

Nominal Size Run x Branch mm / in	Pipe O. D. mm / in	Hole Dia. +3.2, -0 / +0.13, -0 mm / in	Dimensions					Bolt Size mm / in	Weight Kgs / Lbs
			T* mm / in	A mm / in	B mm / in	C mm / in	D mm / in		
200 x 50	219.1 x 60.3	[70]	135	166	120	327	101	M20 x 120	6.2
8 x 2	8.625 x 2.375	[2.75]	5.31	6.54	4.72	12.87	3.98	¾ x 4¾	13.6
200 x 65	219.1 x 73.0	70	137	166	120	327	104	M20 x 120	6.2
8 x 2.5	8.625 x 2.875	2.75	5.39	6.54	4.72	12.87	4.09	¾ x 4¾	13.7
200 x 80	219.1 x 76.1	89	136	166	120	327	128	M20 x 120	7.1
8 x 3	8.625 x 3.000	3.50	5.35	6.54	4.72	12.87	5.04	¾ x 4¾	15.6
200 x 100	219.1 x 114.3	114	133	166	120	327	164	M20 x 120	8.0
8 x 4	8.625 x 4.500	4.50	5.24	6.54	4.72	12.87	6.46	¾ x 4¾	17.6

1. Hole diameters listed are suggested hole saw diameters. 2. *T: Take-out (Center of run to end of pipe to be engaged)
3. Special caution is required to some exceptional hole sizes shown in [ ].

MODEL

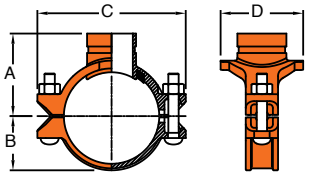
M22 MECHANICAL TEE GROOVED-END OUTLET

The groove dimensions conform to AWWA C606. UL/FM working pressure is 20 bar (300 psi). The Model 7722 is available in 8" sizes.

Pressure-Temperature Rating

Nom. Rating	Working Pressure (STD, Roll-grooved)	Max. Service Temperature
Class 150	300 psi @100°F 20 Bar @38°C	EPDM: 230°F / 110°C Nitrile: 180°F / 82°C

*Working pressure is based on standard wall carbon steel pipe.
*Proof test pressure: 1.5 times the working pressure, non-shock cold water.
*Burst pressure is engineered minimum 3 times the working pressure.



Nominal Size Run x Branch mm / in	Pipe O. D. mm / in	Hole Dia. +3.2, -0 / +0.13, -0 mm / in	Dimensions A mm / in	B mm / in	C mm / in	D mm / in	Bolt Size mm / in	Weight Kgs / Lbs
50 x 25	60.3 x 33.4	38	73.0	38.1	115.9	81.0	M10 x 55	1.03
2 x 1	2.375 x 1.315	1.50	2.87	1.50	4.57	3.19	⅜ x 2⅛	2.27
50 x 32	60.3 x 42.2	[45]	76.2	38.1	115.9	84.0	M10 x 55	1.11
2 x 1¼	2.375 x 1.660	[1.75]	3.00	1.50	4.57	3.31	⅜ x 2⅛	2.44
50 x 40	60.3 x 48.3	[45]	76.2	38.1	115.9	84.0	M10 x 55	1.18
2 x 1½	2.375 x 1.900	[1.75]	3.00	1.50	4.57	3.31	⅜ x 2⅛	2.60
65 x 25	73.0 x 33.4	38	79.4	44.5	141.3	81.0	M12 x 60	1.23
2½ x 1	2.875 x 1.315	1.50	3.13	1.75	5.56	3.19	⅜ x 2⅜	2.71
65 x 32	73.0 x 42.2	51	82.6	44.5	141.3	94.0	M12 x 60	1.39
2½ x 1¼	2.875 x 1.660	2.00	3.25	1.75	5.56	3.70	⅜ x 2⅜	3.06
65 x 40	73.0 x 48.3	51	82.6	44.5	141.3	94.0	M12 x 60	1.42
2½ x 1½	2.875 x 1.900	2.00	3.25	1.75	5.56	3.70	⅜ x 2⅜	3.12
76.1 x 25	76.1 x 33.4	38	79.4	46.1	144.5	81.0	M12 x 60	1.23
	3.000 x 1.315	1.50	3.13	1.81	5.69	3.19	½ x 2⅜	2.71
76.1 x 32	76.1 x 42.2	51	82.6	46.1	144.5	94.0	M12 x 60	1.39
	3.000 x 1.660	2.00	3.25	1.81	5.69	3.70	½ x 2⅜	3.06
76.1 x 40	76.1 x 48.3	51	82.6	46.1	144.5	94.0	M12 x 60	1.42
	3.000 x 1.900	2.00	3.25	1.81	5.69	3.70	½ x 2⅜	3.12
80 x 25	88.9 x 33.4	38	85.7	53.2	157.2	81.0	M12 x 75	1.45
3 x 1	3.500 x 1.315	1.50	3.37	2.09	6.19	3.19	½ x 3	3.19
80 x 32	88.9 x 42.2	51	90.5	53.2	157.2	94.0	M12 x 75	1.68
3 x 1¼	3.500 x 1.660	2.00	3.56	2.09	6.19	3.70	½ x 3	3.70
80 x 40	88.9 x 48.3	51	90.5	53.2	157.2	94.0	M12 x 75	1.70
3 x 1½	3.500 x 1.900	2.00	3.56	2.09	6.19	3.70	½ x 3	3.74
80 x 50	88.9 x 60.3	64	90.5	53.2	157.2	108.0	M12 x 75	1.83
3 x 2	3.500 x 2.375	2.50	3.56	2.09	6.19	4.25	½ x 3	4.03
100 x 25	114.3 x 33.4	38	93.7	66.7	182.6	79.4	M12 x 75	1.65
4 x 1	4.500 x 1.315	1.50	3.69	2.63	7.19	3.13	½ x 3	3.63
100 x 32	114.3 x 42.2	51	92.1	66.7	182.6	101.6	M12 x 75	1.80
4 x 1¼	4.500 x 1,660	2.00	3.63	2.63	7.19	4.00	½ x 3	3.96
100 x 40	114.3 x 48.3	51	92.1	66.7	182.6	101.6	M12 x 75	1.81
4 x 1½	4.500 x 1.900	2.00	3.63	2.63	7.19	4.00	½ x 3	3.98
100 x 50	114.3 x 60.3	64	101.6	66.7	182.6	101.6	M12 x 75	1.93
4 x 2	4.500 x 2.375	2.50	4.00	2.63	7.19	4.00	½ x 3	4.25
100 x 65	114.3 x 73.0	70	101.6	66.7	182.6	112.7	M12 x 75	2.66
4 x 2½	4.500 x 2.875	2.75	4.00	2.63	7.19	4.44	½ x 3	5.85
100 x 76.1	114.3 x 76.1	70	101.6	66.7	182.6	112.7	M12 x 75	2.17
	4.500 x 3.000	2.75	4.00	2.63	7.19	4.44	½ x 3	4.78
100 x 80	114.3 x 88.9	89	104.8	66.7	182.6	128.6	M12 x 75	2.41
4 x 3	4.500 x 3.500	3.50	4.13	2.63	7.19	5.06	½ x 3	5.30
139.7 x 50	139.7 x 60.3	64	120.7	81.0	223.8	106.4	M16 x 90	2.63
	5.500 x 2.375	2.50	4.75	3.19	8.81	4.19	⅝ x 3½	5.79
139.7 x 76.1	139.7 x 76.1	70	120.7	81.0	223.8	112.7	M16 x 90	2.95
	5.500 x 3.000	2.75	4.75	3.19	8.81	4.44	⅝ x 3½	6.50
139.7 x 80	139.7 x 88.9	70	117.5	81.0	223.8	131.8	M16 x 90	3.08
	5.500 x 3.500	2.75	4.63	3.19	8.81	5.19	⅝ x 3½	6.78
125 x 50	141.3 x 60.3	64	120.7	81.0	223.8	106.4	M16 x 90	2.63
5 x 2	5.563 x2.375	2.50	4.75	3.19	8.81	4.19	⅝ x 3½	5.79
125 x 65	141.3 x 73.0	70	120.7	81.0	223.8	112.7	M16 x 90	2.88
5 x 2½	5.563x 2.875	2.75	4.75	3.19	8.81	4.44	⅝ x 3½	6.34
125 x 76.1	141.3 x 76.1	70	120.7	81.0	223.8	112.7	M16 x 90	2.95
	5.563x 3.000	2.75	4.75	3.19	8.81	4.44	⅝ x 3½	6.49
125 x 80	141.3 x 88.9	70	117.5	81.0	223.8	131.8	M16 x 90	3.08
5 x 3	5.563 x 3.500	2.75	4.63	3.19	8.81	5.19	⅝ x 3½	6.78

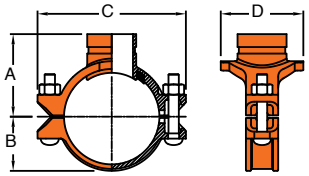
1. Hole diameters listed are suggested hole saw diameters. 2. Special caution is required to some exceptional hole sizes shown in [ ].

Continued on next page

MODEL

M22 & 7722 MECHANICAL TEE
GROOVED-END OUTLET

The groove dimensions conform to AWWA C606. UL/FM working pressure is 20 bar (300 psi). The Model 7722 is available in 8" sizes.



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Nominal Size Run x Branch mm / in	Pipe O. D. mm / in	Hole Dia. +3.2, -0 / +0.13, -0 mm / in	Dimensions A mm / in	B mm / in	C mm / in	D mm / in	Bolt Size mm / in	Weight Kgs / Lbs
165.1 x 32	165.1 x 42.2	51	130.2	94.5	250.8	92.1	M16 x 90	2.74
	6.500 x 1.660	2.00	5.13	3.72	9.87	3.63	⅝ x 3½	6.03
165.1 x 40	165.1 x 48.3	51	130.2	94.5	250.8	92.1	M16 x 90	2.78
	6.500 x 1.900	2.00	5.13	3.72	9.87	3.63	⅝ x 3½	6.12
165.1 x 50	165.1 x 60.3	64	130.2	94.5	250.8	106.4	M16 x 90	2.91
	6.500 x 2.375	2.50	5.13	3.72	9.87	4.19	⅝ x 3½	6.40
165.1 x 76.1	165.1 x 76.1	70	130.2	94.5	250.8	115.9	M16 x 90	3.38
	6.500 x 3.000	2.75	5.13	3.72	9.87	4.56	⅝ x 3½	7.44
165.1 x 80	165.1 x 88.9	89	130.2	94.5	250.8	131.8	M16 x 90	3.64
	6.500 x 3.500	3.50	5.13	3.72	9.87	5.19	⅝ x 3½	8.01
165.1 x 100	165.1 x 114.3	114	137.1	94.5	250.8	158.8	M16 x 90	4.05
	6.500 x 4.500	4.50	5.40	3.72	9.87	6.25	⅝ x 3½	8.91
150 x 32	168.3 x 42.2	51	130.2	94.5	250.8	92.1	M16 x 90	2.75
6 x 1¼	6.625 x 1.660	2.00	5.13	3.72	9.87	3.63	5/8 x 3½	6.05
150 x 40	168.3 x 48.3	51	130.2	94.5	250.8	92.1	M16 x 90	2.78
6 x 1½	6.625 x 1.900	2.00	5.13	3.72	9.87	3.63	⅝ x 3½	6.12
150 x 50	168.3 x 60.3	64	130.2	94.5	250.8	106.4	M16 x 90	2.92
6 x 2	6.625 x 2.375	2.50	5.13	3.72	9.87	4.19	⅝ x 3½	6.42
150 x 65	168.3 x 73.0	70	130.2	94.5	250.8	112.7	M16 x 90	3.22
6 x 2½	6.625 x 2.875	2.75	5.13	3.72	9.87	4.44	⅝ x 3½	7.08
150 x 80	168.3 x 88.9	89	130.2	94.5	250.8	131.8	M16 x 90	3.68
6 x 3	6.625 x 3.500	3.50	5.13	3.72	9.87	5.19	⅝ x 3½	8.10
150 x 100	168.3 x 114.3	114	137.1	94.5	250.8	158.8	M16 x 90	4.05
6 x 4	6.625 x 4.500	4.50	5.40	3.72	9.87	6.25	⅝ x 3½	8.91

MODEL 7722

Nominal Size Run x Branch mm / in	Pipe O. D. mm / in	Hole Dia. +3.2, -0 / +0.13, -0 mm / in	Dimensions A mm / in	B mm / in	C mm / in	D mm / in	Bolt Size mm / in	Weight Kgs / Lbs
200 x 50	219.1 x 60.3	[70]	166	120	327	104	M20 x 120	5.8
8 x 2	8.625 x 2.375	[2.75]	6.54	4.72	12.87	3.89	¾ x 4¾	12.8
200 x 65	219.1 x 73.0	70	166	120	327	104	M20 x 120	6.0
8 x 2½	8.625 x 2.875	2.75	6.54	4.72	12.87	4.09	¾ x 4¾	13.2
200 x 76.1	219.1 x 76.1	70	166	120	327	104	M20 x 120	6.0
	8.625 x 3.000	2.75	6.54	4.72	12.87	4.09	¾ x 4¾	13.2
200 x 80	219.1 x 88.9	89	166	120	327	128	M20 x 120	7.2
8 x 3	8.625 x 3.500	3.50	6.54	4.72	12.87	5.04	¾ x 4¾	15.8
200 x 100	219.1 x 114.3	114	166	120	327	164	M20 x 120	7.5
8 x 4	8.625 x 4.500	4.50	6.54	4.72	12.87	6.46	¾ x 4¾	16.5

1. Hole diameters listed are suggested hole saw diameters. 2. Special caution is required to some exceptional hole sizes shown in [ ].

MODEL

723 SADDLE-LET

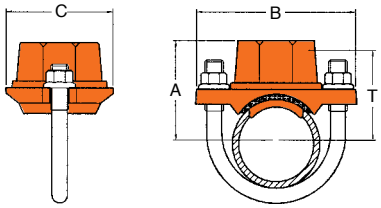
Small Mechanical Tee

The Model 723 Saddle-Let is the ideal outlet fitting for making direct connections to sprinkler heads, drop nipples and or gauges. No need for welding, just cut or drill a hole at the desired outlet location.

Pressure-Temperature Rating

Nom. Rating	Working Pressure (STD, Roll-grooved)	Max. Service Temperature
Class 150	300 psi @100°F 20 Bar @38°C	EPDM: 230°F / 110°C Nitrile: 180°F / 82°C

*Working pressure is based on standard wall carbon steel pipe.
*Proof test pressure: 1.5 times the working pressure, non-shock cold water.
*Burst pressure is engineered minimum 3 times the working pressure.



Nominal Size mm / in	Hole Dia. +1.6, -0 / +0.063, -0 mm / in	Dimensions A mm / in	Dimensions B mm / in	Dimensions C mm / in	Take-Out, T mm / in	Bolt Size in	Bolt Torque N-m / Lb-Ft	Weight Kgs / Lbs
32 x 15	30	53.0	89.0	56.0	35.0	3/8Ø	20-30	0.4
1¼ x ½	1.18	2.08	3.50	2.20	1.38	U-Bolt	15-22	0.9
32 x 20	30	53.0	89.0	56.0	35.0	3/8Ø	20-30	0.4
1¼ x ¾	1.18	2.08	3.50	2.20	1.38	U-Bolt	15-22	0.9
32 x 25	30	56.0	89.0	56.0	38.0	3/8Ø	20-30	0.4
1¼ x 1	1.18	2.20	3.50	2.20	1.50	U-Bolt	15-22	0.9
40 x 15	30	55.0	89.0	56.0	35.0	3/8Ø	20-30	0.4
1½ x ½	1.18	2.16	3.50	2.20	1.38	U-Bolt	15-22	0.9
40 x 20	30	55.0	89.0	56.0	35.0	3/8Ø	20-30	0.4
1½ x ¾	1.18	2.16	3.50	2.20	1.38	U-Bolt	15-22	0.9
40 x 25	30	58.0	89.0	56.0	38.0	3/8Ø	20-30	0.4
1½ x 1	1.18	2.28	3.50	2.20	1.50	U-Bolt	15-22	0.9
50 x 15	30	64.0	98.0	56.0	42.0	3/8Ø	20-30	0.4
2 x ½	1.18	2.51	3.85	2.20	1.65	U-Bolt	15-22	0.9
50 x 20	30	64.0	98.0	56.0	42.0	3/8Ø	20-30	0.4
2 x ¾	1.18	2.51	3.85	2.20	1.65	U-Bolt	15-22	0.9
50 x 25	30	67.0	98.0	56.0	45.0	3/8Ø	20-30	0.4
2 x 1	1.18	2.63	3.85	2.20	1.77	U-Bolt	15-22	0.9
65 x 15	30	69.0	111.0	56.0	51.0	3/8Ø	20-30	0.4
2½ x ½	1.18	2.71	4.37	2.20	2.00	U-Bolt	15-22	0.9
65 x 20	30	69.0	111.0	56.0	51.0	3/8Ø	20-30	0.4
2½ x ¾	1.18	2.71	4.37	2.20	2.00	U-Bolt	15-22	0.9
65 x 25	30	72.0	111.0	56.0	54.0	3/8Ø	20-30	0.5
2½ x 1	1.18	2.83	4.37	2.20	2.13	U-Bolt	15-22	1.1

1. Hole diameters listed are suggested hole saw diameters. 2. *T: Take-out (Center of run to end of pipe to be engaged)

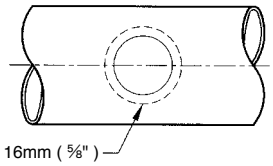
Hole Cutting

The method of pipe preparation requires the cutting or drilling of a specified hole size on the centerline of the pipe. Always use the correct hole saw size as shown in the table and never use a torch for cutting a hole. After the hole has been cut all rough edges must be removed and the area within 5/8" (16mm) of the hole should be inspected to ensure a clean smooth surface, free of any indentations or projections that could affect proper gasket sealing.

Hole Sizes for 723 Saddle-let

unit: mm/in

Saddle- Let Branch Size	Hole Dimensions: Hole Saw Size	Hole Dimensions: Max dia. Allowed	Surface Preparation "A"
15, 20, 25	30	32	89
½, ¾, 1	$1^{13}/_{16}$	1¼	3½



Performance Data Sheet - Ductile Iron Couplings on Carbon Steel & Stainless Steel Pipe

The following tables show maximum working pressures (CWP) of **Shurjoint** ductile iron couplings and flange adapters used on both carbon steel and stainless steel pipes. **Shurjoint** ductile iron couplings can be used in conjunction with stainless steel pipe in non-corrosive environment as the flow media does not come in direct contact with the coupling housings but rather only the gasket.

unit: psi

Model Z05 on Carbon Steel Pipe					
Size	Cut-Grooved		Roll-Grooved		
in	XS	STD	STD	Sch. 10	Sch. 7
1¼	600	600	500	400	250
1½	600	600	500	400	250
2	600	600	500	400	250
2½	600	600	500	400	250
3	600	600	500	400	250
4	600	600	500	400	200
5	450	450	350	300	175
6	450	450	350	300	175
8	450	450	350	300	150

unit: psi

Model Z05 on Stainless Steel Pipe					
Size	Cut-Grooved		Roll-Grooved		
in	Sch. 80S	Sch. 40S	Sch. 40S	Sch. 10S	Sch. 5S
1¼	600	600	450	300	250
1½	600	600	450	300	250
2	600	600	450	300	250
2½	600	600	450	300	250
3	600	600	450	300	250
4	600	600	450	300	200
5	450	450	300	200	NR
6	450	450	300	125	NR
8	450	450	300	100	NR

Model Z07 on Carbon Steel Pipe					
Size	Cut-Grooved		Roll-Grooved		
in	XS	STD	STD	Sch. 10	Sch. 7
1¼	750	750	750	600	400
1½	750	750	750	600	400
2	750	750	750	600	400
2½	750	750	750	600	400
3	750	750	750	600	400
4	750	750	750	600	400
5	750	750	750	500	350
6	700	700	700	400	300
8	600	600	600	350	250
10	500	500	500	300	200
12	400	400	400	250	150

Model Z07 on Stainless Steel Pipe					
Size	Cut-Grooved		Roll-Grooved		
in	Sch. 80S	Sch. 40S	Sch. 40S	Sch. 10S	Sch. 5S
1¼	750	750	700	500	300
1½	750	750	700	500	300
2	750	750	700	500	300
2½	750	750	700	500	300
3	750	750	700	500	300
4	750	750	700	400	250
5	750	750	600	300	NR
6	700	700	500	200	NR
8	600	600	400	150	NR
10	500	500	300	100	NR
12	400	400	250	100	NR

Model XH-1000 on Carbon Steel Pipe					
Size	Cut-Grooved		Roll-Grooved		
in	XS	STD	STD	Sch. 10	Sch. 7
2	1500	1000	1000	750	NR
2½	1500	1000	1000	600	NR
3	1500	1000	1000	600	NR
4	1500	1000	1000	600	NR
6	1500	1000	1000	450	NR
8	900	800	800	300	NR
10	900	800	800	300	NR
12	900	800	800	200	NR

Model XH-1000 on Stainless Steel Pipe					
Size	Cut-Grooved		Roll-Grooved		
in	Sch. 80S	Sch. 40S	Sch. 40S	Sch. 10S	Sch. 5S
2	1500	1000	750	500	NR
2½	1500	1000	750	500	NR
3	1500	1000	750	500	NR
4	1500	1000	750	400	NR
6	1500	1000	500	200	NR
8	900	800	400	125	NR
10	900	800	400	125	NR
12	900	800	400	125	NR

Model 7705 on Carbon Steel Pipe					
Size	Cut-Grooved		Roll-Grooved		
in	XS	STD	STD	Sch. 10	Sch. 7
1	600	600	500	400	300
1¼	600	600	500	400	300
1½	600	600	500	400	300
2	600	600	500	400	300
2½	600	600	500	400	300
3	600	600	500	400	300
4	600	600	500	400	300
5	450	450	450	350	250
6	450	450	450	350	250
8	450	450	300	250	200
10	350	350	300	200	175
12	350	350	300	200	175

Model 7705 on Stainless Steel Pipe					
Size	Cut-Grooved		Roll-Grooved		
in	Sch. 80S	Sch. 40S	Sch. 40S	Sch. 10S	Sch. 5S
1	600	600	450	300	250
1¼	600	600	450	300	250
1½	600	600	450	300	250
2	600	600	450	300	250
2½	600	600	450	300	250
3	600	600	450	300	250
4	600	600	450	300	200
5	450	450	300	200	NR
6	450	450	300	125	NR
8	450	450	300	100	NR
10	350	350	200	NR	NR
12	350	350	200	NR	NR

Model 7707 on Carbon Steel Pipe					
Size	Cut-Grooved		Roll-Grooved		
in	XS	STD	STD	Sch. 10	Sch. 7
¾	1000	1000	750	600	500
1	1000	1000	750	600	500
1¼	1000	1000	750	600	500
1½	1000	1000	750	600	500
2	1000	1000	750	600	500
2½	1000	1000	750	600	500
3	1000	1000	750	600	500
4	1000	1000	750	600	400
5	1000	1000	750	500	350
6	1000	1000	700	450	300
8	800	800	600	350	250
10	800	800	550	300	200
12	800	800	500	300	200

Model 7707 on Stainless Steel Pipe					
Size	Cut-Grooved		Roll-Grooved		
in	Sch. 80S	Sch. 40S	Sch. 40S	Sch. 10S	Sch. 5S
¾	750	750	700	450	325
1	750	750	700	450	325
1¼	750	750	700	450	325
1½	750	750	700	450	325
2	750	750	700	450	325
2½	750	750	700	450	325
3	750	750	700	450	325
4	750	750	700	400	250
5	750	750	600	300	NR
6	750	750	500	200	NR
8	600	600	450	150	NR
10	600	600	400	125	NR
12	600	600	400	125	NR

unit: psi

Model M-7 on Carbon Steel Pipe					
Size	Cut-Grooved		Roll-Grooved		
in	XS	STD	STD	Sch. 10	Sch. 7
2	500	500	500	350	300
2½	500	500	500	350	300
3	500	500	500	350	300
4	500	500	500	350	300
5	400	400	400	350	250
6	400	400	400	350	250

unit: psi

Model M-7 on Stainless Steel Pipe					
Size	Cut-Grooved		Roll-Grooved		
in	Sch. 80S	Sch. 40S	Sch. 40S	Sch. 10S	Sch. 5S
2	500	500	450	300	250
2½	500	500	450	300	250
3	500	500	450	300	250
4	500	500	450	300	200
5	400	400	300	200	NR
6	400	400	300	125	NR

Model 7706 on Carbon Steel Pipe					
Size	Cut-Grooved		Roll-Grooved		
in	XS	STD	STD	Sch. 10	Sch. 7
1½ x 1¼	500	500	500	350	300
2 x '1½	500	500	500	350	300
2½ x 2	500	500	500	350	300
3 x 2	500	500	500	350	300
3 x '2½	500	500	500	350	300
4 x 2	500	500	500	350	300
4 x '2½	500	500	500	350	300
4 x 3	500	500	500	300	250
5 x 4	400	400	400	300	250
6 x 3	400	400	400	300	200
6 x 4	400	400	400	300	175
8 x 6	400	400	400	300	175

Model 7706 on Stainless Steel Pipe					
Size	Cut-Grooved		Roll-Grooved		
in	Sch. 80S	Sch. 40S	Sch. 40S	Sch. 10S	Sch. 5S
1½ x 1¼	500	500	350	300	250
2 x '1½	500	500	350	300	250
2½ x 2	500	500	350	300	250
3 x 2	500	500	350	300	250
3 x '2½	500	500	350	300	250
4 x 2	500	500	350	300	250
4 x '2½	500	500	350	300	200
4 x 3	500	500	300	250	200
5 x 4	400	400	300	250	NR
6 x 3	400	400	300	200	NR
6 x 4	400	400	300	175	NR
8 x 6	400	400	300	175	NR

Model G28 on Carbon Steel Pipe					
Size	Cut-Grooved		Roll-Grooved		
in	XS	STD	STD	Sch. 10	Sch. 7
1½	300	300	300	300	NR
2	300	300	300	300	NR
2½	300	300	300	300	NR
3	300	300	300	300	NR
4	300	300	300	300	NR
5	300	300	300	300	NR
6	300	300	300	300	NR
8	300	300	300	250	NR
10	300	300	300	250	NR
12	300	300	300	250	NR

Model G28 on Stainless Steel Pipe					
Size	Cut-Grooved		Roll-Grooved		
in	Sch. 80S	Sch. 40S	Sch. 40S	Sch. 10S	Sch. 5S
'1½	300	300	300	300	NR
2	300	300	300	300	NR
2.5	300	300	300	300	NR
3	300	300	300	300	NR
4	300	300	300	175	NR
5	300	300	250	150	NR
6	300	300	250	150	NR
8	300	300	200	NR	NR
10	300	300	200	NR	NR
12	300	300	200	NR	NR

Model C-7 on Carbon Steel Pipe					
Size	Cut-Grooved		Roll-Grooved		
in	XS	STD	STD	Sch. 10	Sch. 7
1½ x *	500	500	500	350	300
2 x *	500	500	500	350	300
2½ x *	500	500	500	350	300
3 x *	500	500	500	350	300
4 x *	500	500	500	350	300
6 x *	400	400	400	350	300

* = all branch sizes, threaded and grooved

Model C-7 on Stainless Steel Pipe					
Size	Cut-Grooved		Roll-Grooved		
in	Sch. 80S	Sch. 40S	Sch. 40S	Sch. 10S	Sch. 5S
1½ x *	500	500	350	300	250
2 x *	500	500	350	300	250
2½ x *	500	500	350	300	250
3 x *	500	500	350	300	250
4 x *	500	500	350	300	250
6 x *	400	400	300	300	250

* = all branch sizes, threaded and grooved

Model 7041 on Carbon Steel Pipe					
Size	Cut-Grooved		Roll-Grooved		
in	XS	STD	STD	Sch. 10	Sch. 7
2	300	300	300	250	NR
2½	300	300	300	250	NR
3	300	300	300	250	NR
4	300	300	300	250	NR
5	300	300	300	250	NR
6	300	300	300	250	NR
8	300	300	300	200	NR
10	300	300	300	200	NR
12	300	300	300	200	NR
14	300	300	300	200	NR
16	300	300	300	175	NR
18	300	300	300	175	NR
20	300	300	300	150	NR
24	300	300	300	150	NR

Hydrostatic shell test: 450 psi (30 Bar) per ANSI B16.5

Model 7041 on Stainless Steel Pipe					
Size	Cut-Grooved		Roll-Grooved		
in	Sch. 80S	Sch. 40S	Sch. 40S	Sch. 10S	Sch. 5S
2	300	300	275	275	175
2½	300	300	275	275	175
3	300	300	275	275	175
4	300	300	275	275	175
5	300	300	275	200	175
6	300	300	250	200	125
8	300	300	200	NR	NR
10	300	300	200	NR	NR
12	300	300	200	NR	NR
14	250	250	125	NR	NR
16	250	250	125	NR	NR
18	250	250	125	NR	NR
20	250	250	100	NR	NR
24	250	250	100	NR	NR

Model 7043 on Carbon Steel Pipe					
Size	Cut-Grooved		Roll-Grooved		
in	XS	STD	STD	Sch. 10	Sch. 7
2	750	750	750	500	NR
2½	750	750	750	500	NR
3	750	750	750	500	NR
4	750	750	750	500	NR
5	750	750	750	450	NR
6	750	750	750	450	NR
8	750	750	750	300	NR
10	750	750	750	300	NR
12	750	750	750	250	NR

Hydrostatic shell test: 1125 psi (77 Bar) per ANSI B16.5

Model 7043 on Stainless Steel Pipe					
Size	Cut-Grooved		Roll-Grooved		
in	Sch. 80S	Sch. 40S	Sch. 40S	Sch. 10S	Sch. 5S
2	400	400	400	NR	NR
2½	400	400	400	NR	NR
3	400	400	400	NR	NR
4	300	300	300	NR	NR
5	300	300	250	NR	NR
6	300	300	200	NR	NR
8	250	250	150	NR	NR
10	250	250	150	NR	NR
12	250	250	150	NR	NR

Section 2

Cast & Wrought Grooved Fittings

Shurjoint Grooved Fittings

Shurjoint *offers a wide range of grooved-end fittings in sizes through 24" (600mm). Fittings are available in a number of styles and configurations to support a variety of applications. Shurjoint grooved-end fittings are manufactured and designed to meet ASTM F1548 and ANSI/AWWA C606 requirements for use with grooved mechanical couplings conforming to ASTM F1476. For sizes not specified in these standards, please refer to applicable groove specifications shown in this catalog.*

Pressure-Temperature Rating

Size	Nom. Rating	Working Pressure (STD, Roll-grooved)	Max. Service Temperature
1" – 6" (25 – 150)	Class 300	750 psi @100°F 52 Bar @38°C	EPDM: 230°F / 110°C Nitrile: 180°F / 82°C
8" – 12" (200 – 300)	Class 250	400 psi @100°F 28 Bar @38°C	
14" – 24" (250 – 600)	Class 150	300 psi @100°F 20 Bar @38°C	

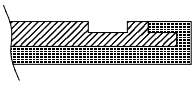
*Working pressure is based on roll- or cut-grooved standard wall carbon steel pipe.
*Proof test pressure: 1.5 times the working pressure, non-shock cold water.
*Burst pressure is engineered minimum 3 times the working pressure.

Most fittings are provided in ductile iron conforming to ASTM A536 Gr. 65-45-12 and or ASTM A395 Gr. 65-45-15. Some styles and sizes larger than 14" (350mm) are fabricated from carbon steel pipe to ASTM A53 Gr. B or fabricated of segmentally welded steel of the same or equivalent grade. Fittings are painted orange or red, or as an option can be supplied hot-dip galvanized or epoxy coated.

Rubber Lined Fittings

Shurjoint ductile iron grooved end fittings are also available with rubber lining for abrasive services. Contact Shurjoint for further information.

For abrasive services



For abrasive and corrosive services

Flow Data / Frictional Resistance

Expressed as equivalent length of straight pipe

Nominal Size mm / in	Pipe O.D. mm / in	Pipe Wall Thickness mm / in	Elbows					Tees	
			#7110 90° Std. Radius meters / feet	#901 90° Short. Radius meters / feet	#7110LR 90° 1½ D. LR meters / feet	#7111 45° Std. Radius meters / feet	#7111LR 45° 1½ D. LR meters / feet	#7120 Branch meters / feet	#903 Branch meters / feet
25	33.4	3.4	0.5	---	---	0.2	---	1.3	---
1	1.315	0.133	1.7	---	---	0.8	---	4.2	---
32	42.2	3.6	0.8	0.8	---	0.3	---	1.4	1.4
1¼	1.660	0.140	2.5	2.5	---	1.0	---	4.7	4.7
40	48.3	40	1.1	1.1	---	0.5	---	2.0	2.0
1½	1.900	0.154	3.5	3.5	---	1.5	---	6.5	6.5
50	60.3	5.2	1.2	1.2	0.8	0.5	0.3	2.6	2.6
2	2.375	0.203	4.0	4.0	2.5	1.7	1.1	8.5	8.5
65	73.0	5.0	1.4	1.4	0.9	0.6	0.4	3.1	3.1
2½	2.875	0.197	4.5	4.5	2.9	2.0	1.4	10.0	10.0
80	88.9	6.3	1.5	1.5	1.2	0.8	0.5	3.7	3.7
3	3.500	0.237	5.0	5.0	3.8	2.5	1.5	12.0	12.0
100	114.3	5.6	2.0	2.0	1.5	0.9	0.6	4.6	4.6
4	4.500	0.220	6.7	6.7	5.0	3.0	2.1	15.0	15.0
125	141.3	6.6	2.3	2.3	1.8	1.2	0.6	5.8	5.8
5	5.563	0.258	7.5	7.5	6.0	4.0	2.5	19.0	19.0
150	168.3	7.1	2.7	2.7	2.3	1.4	0.9	6.7	6.7
6	6.625	0.280	9.0	9.0	7.5	4.5	3.0	22.0	22.0
200	219.1	8.2	4.0	4.0	3.0	2.0	1.2	10.1	10.1
8	8.625	0.322	13.0	13.0	9.8	6.5	4.0	33.0	33.0
250	273.0	8.8	5.2	---	3.7	2.5	1.5	12.5	---
10	10.750	0.365	17.0	---	12.0	8.3	5.0	41.0	---
300	323.9	9.5	6.1	---	4.4	3.1	1.8	14.9	---
12	12.750	0.375	20.0	---	14.5	10.0	6.0	49.0	---

The values listed in this table express the frictional resistance of representative **Shurjoint** fittings as equivalent feet (meters) of straight pipe. For the branch of a tee that is reduced in size, use the value that corresponds to the branch size. For example, the branch value of a 4" x 4" x 3" tee is 12.8 feet (3.9 meters). For fittings not listed in this table, the equivalent length of straight pipe can be estimated from the data provided. For example, the flow resistance of a 22½° elbow is approximately one half that of a 45° elbow.

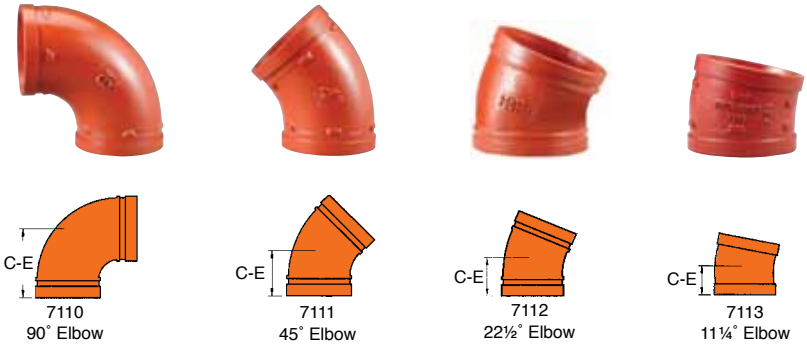
MODEL
7110 90° ELBOW

MODEL
7111 45° ELBOW

7112 22-½° ELBOW

7113 11-¼° ELBOW

Shurjoint ductile iron grooved-end fittings are made of ductile iron per ASTM A536 Gr. 65-45-12 and or ASTM A395 Gr. 65-45-15. C-E dimensions are manufacturer's standard. See page 54 for wrought steel grooved-end fittings.

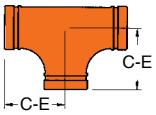


Nominal Size mm / in	Pipe O. D. mm / in	#7110 90˚ Elbow C - E mm / in	#7110 90˚ Elbow Weight Kgs / Lbs	#7111 45˚ Elbow C - E mm / in	#7111 45˚ Elbow Weight Kgs / Lbs	#7112 22½˚ Elbow C - E mm / in	#7112 22½˚ Elbow Weight Kgs / Lbs	#7113 11¼˚ Elbow C - E mm / in	#7113 11¼˚ Elbow Weight Kgs / Lbs
25	33.4	57	0.3	45	0.2	---	---	---	---
1	1.315	2.25	0.7	1.75	0.5	---	---	---	---
32	42.2	70	0.5	45	0.3	---	---	---	---
1¼	1.660	2.75	1.1	1.75	0.7	---	---	---	---
40	48.3	70	0.6	45	0.4	45	0.6	---	---
1½	1.900	2.75	1.3	1.75	0.9	1.75	1.3	---	---
50	60.3	83	0.9	51	0.7	48	0.8	35	0.4
2	2.375	3.25	2.0	2.00	1.5	1.88	1.8	1.38	1.0
65	73.0	95	1.2	57	0.9	51	1.0	38	0.7
2½	2.875	3.75	2.6	2.25	2.0	2.01	2.2	1.50	1.6
76.1mm	76.1	95	1.4	57	0.9	51	1.0	38	0.8
	3.000	3.75	3.1	2.25	2.1	2.01	2.2	1.50	1.7
80	88.9	108	2.0	64	1.3	57	1.4	38	0.8
3	3.500	4.25	4.3	2.50	2.9	2.25	3.1	1.50	1.8
101.6mm	101.6	114	2.5	---	---	---	---	---	---
	4.000	4.50	5.6	---	---	---	---	---	---
100	114.3	127	3.1	76	2.0	73	2.0	45	1.0
4	4.500	5.00	6.9	3.00	4.4	2.88	4.4	1.75	2.2
108.0mm	108.0	127	2.5	76	2.0	---	---	---	---
	4.250	5.00	5.5	3.00	4.4	---	---	---	---
125	141.3	140	5.0	83	3.0	73	3.1	---	---
5	5.563	5.50	11.0	3.25	6.6	2.88	6.8	---	---
133.0mm	133.0	140	4.1	83	2.7	---	---	---	---
	5.250	5.50	9.0	3.25	5.9	---	---	---	---
139.7mm	139.7	140	4.3	83	2.9	73	2.9	---	---
	5.500	5.50	9.5	3.25	6.4	2.88	6.5	---	---
150	168.3	165	5.8	89	4.0	79	5.0	51	2.5
6	6.625	6.50	12.8	3.50	8.9	3.12	11.0	2.00	5.5
159.0mm	159.0	165	6.0	89	3.8	---	---	---	---
	6.250	6.50	13.2	3.50	8.4	---	---	---	---
165.1mm	165.1	165	5.7	89	4.0	79	5.0	51	2.5
	6.500	6.50	12.5	3.50	8.9	3.12	11.0	2.00	5.5
200	219.1	197	13.0	108	8.6	98	10.0	51	5.5
8	8.625	7.75	28.7	4.25	19.0	3.88	22.0	2.00	12.1
250	273.0	229	24.1	121	15.5	111	17.7	54	10.0
10	10.750	9.00	53.1	4.75	34.2	4.38	38.9	2.13	22.1
300	323.9	254	36.7	133	22.5	---	19.5	57	12.4
12	12.750	10.00	81.0	5.25	49.5	---	42.9	2.25	27.3
200JIS	216.3	197	12.4	108	8.4	98	10.0	---	---
	8.516	7.75	27.2	4.25	18.5	3.88	22.0	---	---
250JIS	267.4	229	24.0	121	15.5	111	17.7	54	10.0
	10.528	9.00	52.8	4.75	34.2	4.38	38.9	2.13	22.1
300JIS	318.5	254	35.0	133	22.5	---	---	57	12.4
	12.539	10.00	77.0	5.25	49.5	---	---	2.25	27.3
350	355.6	280	35.1	152	22.0	---	21.0	---	---
14	14.000	11.00	77.5	6.00	48.4	---	46.2	---	---
400	406.4	305	43.0	184	44.0	---	22.0	---	---
16	16.000	12.00	94.6	7.25	96.8	---	48.4	---	---
450	457.2	394	83.5	203	46.6	---	---	---	---
18	18.000	15.50	184.0	8.00	102.5	---	---	---	---
500	508.0	438	118.5	229	54.5	---	---	---	---
20	20.000	17.25	261.2	9.00	120.2	---	---	---	---
600	609.6	508	185.0	280	83.5	---	---	---	---
24	24.000	20.00	407.9	11.00	184.1	---	---	---	---

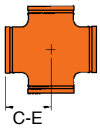
MODEL

7120 TEE
7135 CROSS
7130 45° LATERAL

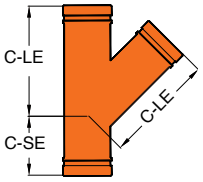
Shurjoint ductile iron grooved-end fittings are made of ductile iron per ASTM A536 Gr. 65-45-12 and or ASTM A395 Gr. 65-45-15. C-E dimensions are manufacturer's standard. See page 54 for wrought steel grooved-end fittings.



7120 Tee



7135 Cross



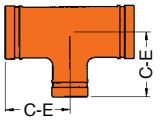
7130
45˚ Lateral

Nominal Size mm / in	Pipe O. D. mm / in	#7120 Tee		#7135 Cross		#7130 45˚ Lateral		
		C - E mm / in	Weight Kgs / Lbs	C - E mm / in	Weight Kgs / Lbs	C - LE mm / in	C - SE mm / in	Weight Kgs / Lbs
25	33.4	57	0.4	---	---	---	---	---
1	1.315	2.25	0.9	---	---	---	---	---
32	42.2	70	0.7	---	---	---	---	---
1¼	1.660	2.75	1.5	---	---	---	---	---
40	48.3	70	0.9	---	---	---	---	---
1½	1.900	2.75	2.0	---	---	---	---	---
50	60.3	83	1.3	83	1.2	178	70	2.0
2	2.375	3.25	2.9	3.25	2.7	7.00	2.75	4.4
65	73.0	95	2.2	95	3.0	197	76	2.8
2½	2.875	3.75	4.8	3.75	6.7	7.75	3.00	6.2
76.1mm	76.1	95	2.3	95	3.0	197	76	2.8
	3.000	3.75	5.1	3.75	6.7	7.75	3.00	6.2
80	88.9	108	3.1	108	3.1	216	83	4.2
3	3.500	4.25	6.8	4.25	6.8	8.50	3.25	9.2
100	114.3	127	4.5	127	5.2	267	95	8.0
4	4.500	5.00	9.9	5.00	11.5	10.50	3.75	17.6
108.0mm	108.0	127	4.1	---	---	---	---	---
	4.250	5.00	9.0	---	---	---	---	---
125	141.3	140	6.5	140	5.9	318	102	12.5
5	5.563	5.50	14.3	5.50	13.0	12.50	4.00	27.5
133.0mm	133.0	140	6.0	---	---	---	---	---
	5.250	5.50	13.2	---	---	---	---	---
139.7mm	139.7	140	6.5	140	5.9	318	102	12.5
	5.500	5.50	14.3	5.50	13.0	12.50	4.00	27.5
150	168.3	165	10.0	165	14.5	356	114	18.5
6	6.625	6.50	22.0	6.50	32.0	14.00	4.50	40.7
150	159.0	165	8.6	---	---	---	---	---
6	6.250	6.50	18.9	---	---	---	---	---
165.1mm	165.1	165	9.4	165	14.5	356	114	18.5
	6.500	6.50	20.8	6.50	32.0	14.00	4.50	40.7
200	219.1	197	20.0	197	20.0	457	152	32.0
8	8.625	7.75	44.0	7.75	44.1	18.00	6.00	70.4
250	273.0	229	31.0	---	---	521	165	63.0
10	10.750	9.00	68.2	---	---	20.50	6.50	138.9
300	323.9	254	43.9	---	---	584	178	91.5
12	12.750	10.00	96.7	---	---	23.00	7.00	201.7
200JIS	216.3	197	20.0	197	20.0	457	152	32.0
	8.516	7.75	44.0	7.75	44.1	18.00	6.00	70.4
250JIS	267.4	229	31.0	---	---	521	165	63.0
	10.528	9.00	68.2	---	---	20.50	6.50	138.9
300JIS	318.5	254	43.9	---	---	584	178	91.5
	12.539	10.00	96.7	---	---	23.00	7.00	201.7
350	355.6	280	52.0	---	---	---	---	---
14	14.000	11.00	114.6	---	---	---	---	---
400	406.4	305	68.0	---	---	---	---	---
16	16.000	12.00	149.9	---	---	---	---	---

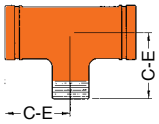
MODEL

7121 REDUCING TEE

Shurjoint ductile iron grooved-end fittings are made of ductile iron per ASTM A536 Gr. 65-45-12 and or ASTM A395 Gr. 65-45-15. C-E dimensions are manufacturer's standard. See page 54 for wrought steel grooved-end fittings.



7121 Reducing Tee



7121 Reducing Tee (Threaded)

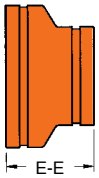
Nominal Size mm / in	Pipe O. D. mm / in	Standard C - E mm / in	Threaded Br. C - E mm / in	Weight Kgs / Lbs	Nominal Size mm / in	Pipe O. D. mm / in	Standard C - E mm / in	Threaded Br. C - E mm / in	Weight Kgs / Lbs
50 x 50 x 40	60.3 x 60.3 x 48.3	83	83	1.2	150 x 150 x 80	168.3 x 168.3 x 88.9	165	165	9.2
2 x 2 x1½	2.375 x 2.375 x 1.900	3.25	3.25	2.6	6 x 6 x 3	6.625 x 6.625 x 3.500	6.50	6.50	20.2
65 x 65 x 25	73.0 x 73.0 x 33.4	95	95	1.7	150 x 150 x 100	168.3 x 168.3 x 114.3	165	165	8.8
2½ x 2½ x 1	2.875 x 2.875 x 1.315	3.75	3.75	3.8	6 x 6 x 4	6.625 x 6.625 x 4.500	6.50	6.50	19.4
65 x 65 x 40	76.1 x 76.1 x 48.3	95	95	1.8	165.1 x 165.1 x 50	165.1 x 165.1 x 60.3	165	165	8.0
2½ x 2½ x 1½	3.000 x 3.000 x 1.900	3.75	3.75	3.9	6 x 6 x 2	6.500 x 6.500 x 2.375	6.50	6.50	17.6
65 x 65 x 50	73.0 x 73.0 x 60.3	95	95	2.0	165.1 x165.1 x 76.1	165.1 x 165.1 x 76.1	165	165	8.5
2½ x2½ x 2	2.875 x 2.875 x 2.375	3.75	3.75	4.4		6.500 x 6.500 x 3.000	6.50	6.50	18.7
65 x 65 x 50	76.1 x 76.1 x 60.3	95	95	2.0	165.1 x 165.1 x 80	165.1 x 165.1 x 88.9	165	165	9.2
2½ x 2½ x 2	3.000 x 3.000 x 2.375	3.75	3.75	4.4	6 x 6 x 3	6.500 x 6.500 x 3.500	6.50	6.50	20.2
80 x 80 x 25	88.9 x 88.9 x 33.4	108	108	2.5	165.1 x 165.1 x 100	165.1 x 165.1 x 114.3	165	165	8.8
3 x 3 x 1	3.500 x 3.500 x 1.315	4.25	4.25	5.5	6 x 6 x 4	6.500 x 6.500 x 4.500	6.50	6.50	19.4
80 x 80 x 40	88.9 x 88.9 x 48.3	108	108	2.4	200 x 200 x50	219.1 x 219.1 x 60.3	197	197	14.8
3 x 3 x 1½	3.500 x 3.500 x 1.900	4.25	4.25	5.2	8 x 8 x 2	8.625 x 8.625 x 2.375	7.75	7.75	32.5
80 x 80 x 50	88.9 x 88.9 x 60.3	108	108	2.8	200 x 200 x 80	219.1 x 219.1 x 88.9	197	197	15.5
3 x 3 x 2	3.500 x 3.500 x 2.375	4.25	4.25	6.2	8 x 8 x 3	8.625 x 8.625 x 3.500	7.75	7.75	34.2
80 x 80 x 65	88.9 x 88.9 x 73.0	108	108	2.8	200 x 200 x 100	219.1 x 219.1 x 114.3	197	197	20.0
3 x 3 x 2½	3.500 x 3.500 x 2.875	4.25	4.25	6.2	8 x 8 x 4	8.625 x 8.625 x 4.500	7.75	7.75	44.0
80 x 80 x 65	88.9 x 88.9 x 76.1	108	108	2.8	200 x 200 x 150	219.1 x 219.1 x 168.3	197	---	21.0
3 x 3 x 2½	3.500 x 3.500 x 3.000	4.25	4.25	6.2	8 x 8 x 6	8.625 x 8.625 x 6.625	7.75	---	46.2
100 x 100 x 25	114.3 x 114.3 x 33.4	95	95	4.0	250 x 250 x 100	273.0 x 273.0 x 114.3	229	229	28.5
4 x 4 x 1	4.500 x 4.500 x 1.315	3.75	3.75	8.9	10 x 10 x 4	10.750 x 10.750 x 4.500	9.00	9.00	62.8
100 x 100 x 50	114.3 x 114.3 x 60.3	127	127	4.0	250 x 250 x 150	273.0 x 273.0 x 168.3	229	---	30.0
4 x 4 x 2	4.500 x 4.500 x 2.375	5.00	5.00	8.8	10 x 10 x 6	10.750 x 10.750 x 6.625	9.00	---	66.0
100 x 100 x 65	114.3 x 114.3 x 73.0	127	127	4.3	250 x 250 x 200	273.0 x 273.0 x 219.1	229	---	31.5
4 x 4 x 2½	4.500 x 4.500 x 2.875	5.00	5.00	9.5	10 x 10 x 8	10.750 x 10.750 x 8.625	9.00	---	69.3
100 x 100 x 76.1mm	114.3 x 114.3 x 76.1	127	127	4.3	300 x 300 x 80	323.9 x 323.9 x 88.9	254	254	40.0
	4.500 x 4.500 x 3.000	5.00	5.00	9.5	12 x 12 x 3	12.750 x 12.750 x 3.500	10.00	10.00	88.1
100 x 100 x 80	114.3 x 114.3 x 88.9	127	127	4.3	300 x 300 x 100	323.9 x 323.9 x114.3	254	254	41.0
4 x 4 x 3	4.500 x 4.500 x 3.500	5.00	5.00	9.4	12 x 12 x 4	12.750 x 12.750 x 4.500	10.00	10.00	90.4
125 x 125 x 50	141.3 x 141.3 x 60.3	140	140	5.6	300 x 300 x 150	323.9 x 323.9 x 168.3	254	---	38.0
5 x 5 x 2	5.563 x 5.563 x 2.375	5.50	5.50	12.4	12 x 12 x 6	12.750 x 12.750 x 6.625	10.00	---	83.6
125 x 125 x 100	141.3 x 141.3 x 114.3	140	140	6.2	300 x 300 x 200	323.9 x 323.9 x 219.1	254	---	38.0
5 x 5 x 4	5.563 x 5.563 x 4.500	5.50	5.50	13.6	12 x 12 x 8	12.750 x 12.750 x 8.625	10.00	---	83.6
150 x 150 x 50	168.3 x 168.3 x 60.3	165	165	8.0	300 x 300 x 250	323.9 x 323.9 x 273.0	254	---	40.0
6 x 6 x 2	6.625 x 6.625 x 2.375	6.50	6.50	17.6	12 x 12 x 10	12.750 x 12.750 x 10.750	10.00	---	88.0
150 x 150 x 65	168.3 x 168.3 x 73.0	165	165	8.5					
6 x 6 x 2½	6.625 x 6.625 x 2.875	6.50	6.50	18.7					

MODEL

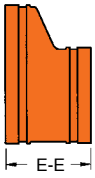
7150 CONCENTRIC REDUCER

7151 ECCENTRIC REDUCER

Shurjoint ductile iron grooved-end fittings are made of ductile iron per ASTM A536 Gr. 65-45-12 and or ASTM A395 Gr. 65-45-15. C-E dimensions are manufacturer's standard. See page 55 for wrought steel grooved-end fittings.



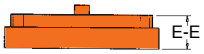
7150 Conc.
Reducer



7151
Ecc. Reducer

Nominal Size mm / in	Pipe O. D. mm / in	#7150 Conc. Reducer E - E mm / in	#7150 Conc. Reducer Weight Kgs / Lbs	#7151 Ecc. Reducer E - E mm / in	#7151 Ecc. Reducer Weight Kgs / Lbs	Nominal Size mm / in	Pipe O. D. mm / in	#7150 Conc. Reducer E - E mm / in	#7150 Conc. Reducer Weight Kgs / Lbs	#7151 Ecc. Reducer E - E mm / in	#7151 Ecc. Reducer Weight Kgs / Lbs
32 x 25	42.2 x 33.4	64	0.20	---	---	200 x 80	219.1 x 88.9	127	4.3	---	---
1¼ x 1	1.660 x 1.315	2.50	0.44	---	---	8 x 3	8.625 x 3.500	5.00	9.48	---	---
40 x 25	48.3 x 33.4	64	0.23	---	---	200 x 100	219.1 x 114.3	127	5.1	127	5.26
1½ x 1	1.900 x 1.315	2.50	0.51	---	---	8 x 4	8.625 x 4.500	5.00	11.2	5.00	11.60
40 x 32	48.3 x 42.2	64	0.28	---	---	200 x 150	219.1 x 168.3	127	5.2	127	5.46
1½ x 1¼	1.900 x 1.660	2.50	0.62	---	---	8 x 6	8.625 x 6.625	5.00	11.4	5.00	12.03
50 x 25	60.3 x 33.4	64	0.37	---	---	250 x 100	273.0 x 114.3	152	9.0	152	12.0
2 x 1	2.375 x 1.315	2.50	0.82	---	---	10 x 4	10.750 x 4.500	6.00	19.8	6.00	26.4
50 x 32	60.3 x 42.2	64	0.33	---	---	250 x 150	273.0 x 168.3	152	9.0	152	11.5
2 x 1¼	2.375 x 1.660	2.50	0.73	---	---	10 x 6	10.750 x6.625	6.00	19.8	6.00	25.3
50 x 40	60.3 x 48.3	64	0.35	---	---	250 x 200	273.0 x 219.1	152	9.5	178	12.17
2 x 1½	2.375 x 1.900	2.50	0.77	---	---	10 x 8	10.750 x 8.625	6.00	20.9	7.00	26.83
65 x 50	73.0 x 60.3	64	0.59	89	0.65	300x150	323.9 x 168.3	178	14.0	178	18.0
2½ x 2	2.875 x 2.375	2.50	1.30	3.50	1.44	12 x 6	12.750 x 6.625	7.00	30.87	7.00	39.6
76.1mm x 50	76.1 x 60.3	64	0.59	89	0.72	300 x 200	323.9 x 219.1	178	14.0	178	18.5
	3.000 x 2.375	2.50	1.30	3.50	1.58	12 x 8	12.750 x 8.625	7.00	30.8	7.00	40.79
80 x 25	88.9 x 33.4	64	0.6	---	---	300 x 250	323.9 x 273.0	178	13.66	178	20.0
3 x 1	3.500 x 1.315	2.50	1.3	---	---	12 x 10	12.750 x 10.750	7.00	30.12	7.00	44.10
80 x 32	88.9 x 42.2	64	0.6	---	---	350 x 200	355.6 x 219.1	203	19.0	---	---
3 x 1¼	3.500 x 1.660	2.50	1.3	---	---	14 x 8	14.000 x 8.625	8.00	41.8	---	---
80 x 40	88.9 x 48.3	64	0.6	---	---	350 x 250	355.6 x 273.0	330	23.59	330	21.0
3 x 1½	3.500 x 1.900	2.50	1.5	---	---	14 x 10	14.000 x 10.750	13.00	52.01	13.00	46.30
80 x 50	88.9 x 60.3	64	0.6	89	1.0	350 x 300	355.6 x 323.9	330	23.0	330	26.5
3 x 2	3.500 x 2.375	2.50	1.3	3.50	2.2	14 x 12	14.000 x 12.750	13.00	50.71	13.00	58.4
80 x 65	88.9 x 73.0	64	0.6	89	1.0	400 x 200	406.4 x 219.1	229	23.7	---	---
3 x 2.5	3.500 x 2.875	2.50	1.3	3.50	2.2	16 x 8	16.000 x 8.625	9.00	52.25	---	---
80 x 65	88.9 x 76.1	64	0.6	89	1.0	400 x 300	406.4 x 323.9	356	31.0	356	31.0
3 x 2½	3.500 x 3.000	2.50	1.3	3.50	2.2	16 x 12	16.000 x 12.750	14.00	68.34	14.02	68.34
100 x 50	114.3 x 60.3	76	0.91	102	1.29	400 x 350	406.4 x 355.6	356	29.0	356	36.5
4 x 2	4.500 x 2.375	3.00	2.01	4.00	2.85	16 x 14	16.000 x 14.000	14.02	63.93	14.02	80.47
100 x 65	114.3 x 73.0	76	0.98	102	1.5	450 x 300	457.2 x 323.9	241	35.5	---	---
4 x 2½	4.500 x 2.875	3.00	2.16	4.00	3.3	18 x 12	18.000 x 12.750	9.50	78.1	---	---
100 x 76.1mm	114.3 x 76.1	76	1.03	102	1.5	450 x 350	457.2 x 355.6	381	36.5	381	39.5
	4.500 x 3.000	3.00	2.27	4.00	3.3	18 x 14	18.000 x 14.000	15.00	80.47	15.00	87.0
100 x 80	114.3 x 88.9	76	1.0	102	1.34	450 x 400	457.2 x 406.4	381	31.27	381	31.00
4 x 3	4.500 x 3.500	3.00	2.2	4.00	2.95	18 x 16	18.000 x 16.000	15.00	68.94	15.00	68.34
125 x 100	141.3 x 114.3	89	1.61	102	2.8	500 x 300	508.0 x 406.4	381	43.0	---	---
5 x 4	5.563 x 4.500	3.50	3.55	4.00	6.17	20 x 12	20.000 x 16.000	15.00	94.6	---	---
150 x 50	168.3 x 60.3	102	1.9	102	2.0	500 x 400	508.0 x 406.4	508	46.0	---	---
6 x 2	6.625 x 2.375	4.00	4.2	4.00	4.41	20 x 16	20.000 x 18.000	20.00	101.41	---	---
150 x 65	168.3 x 73.0	102	2.0	---	3.07	500 x 450	508.0 x 457.2	254	46.0	---	---
6 x 2½	6.625 x 2.875	4.00	4.4	---	6.77	20 x 18	20.000 x 16.000	10.00	101.2	---	---
150 x 80	168.3 x 88.9	102	2.0	102	3.5	600 x 250	609.6 x 273.0	305	36.0	---	---
6 x 3	6.625 x 3.500	4.00	4.4	4.00	7.7	24 x 10	24.000 x 10.750	12.00	79.2	---	---
150 x 100	168.3 x 114.3	102	2.1	102	2.65	600 x 300	609.6 x 323.9	305	70.0	---	---
6 x 4	6.625 x 4.500	4.00	4.6	4.00	5.84	24 x 12	24.000 x 12.750	12.00	154.0	---	---
150 x 125	168.3 x 141.3	102	2.5	102	4.5	600 x 400	609.6 x 406.4	305	59.5	---	---
6 x 5	6.625 x 5.563	4.00	5.5	4.00	9.9	24 x 16	24.000 x 16.000	12.00	131.18	---	---
165.1mm x 50	165.1 x 60.3	102	1.9	102	2	600 x 450	609.6 x 457.2	508	48.5	---	---
	6.500 x 2.375	4.00	4.2	4.00	4.41	24 x 18	24.000 x 18.000	20.00	106.92	---	---
165.1mm	165.3 x 76.1	102	1.9	---	---	600 x 500	609.6 x 508.0	508	71.0	---	---
x 76.1mm	6.5.00 x 3.000	4.00	4.2	---	---	24 x 20	24.000 x 20.000	20.00	156.53	---	---

MODEL
7160 END CAP



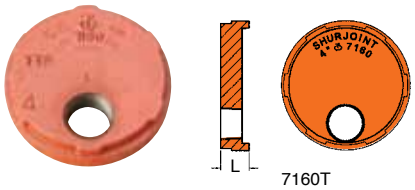
1" ~ 12"

Nominal Size mm / in	Pipe O.D. mm / in	#7160 End Cap E - E mm / in	#7160 End Cap Weight Kgs / Lbs
25	33.4	22	0.1
1	1.315	0.87	0.2
32	42.2	25	0.15
1¼	1.660	1.00	0.33
40	48.3	25	0.2
1½	1.900	1.00	0.4
50	60.3	25	0.3
2	2.375	1.00	0.7
65	73.0	25	0.4
2½	2.875	1.00	0.9
76.1 mm	76.1	25	0.4
	3.000	1.00	0.9
80	88.9	25	0.7
3	3.500	1.00	1.5
100	114.3	25	1.0
4	4.500	1.00	2.2
108 mm	108.0	25	1.1
	4.250	1.00	2.4
125	141.3	25	1.7
5	5.563	1.00	3.7
133 mm	133.0	25	1.7
	5.250	1.00	3.7
139.7 mm	139.7	25	1.7
	5.500	1.00	3.7
150	168.3	25	2.7
6	6.625	1.0	5.96
159.0 mm	159.0	25	2.3
	6.250	1.00	5.1
165.1 mm	165.1	25	2.7
	6.500	1.00	5.96
200	219.1	30	4.6
8	8.625	1.18	10.14
250	273.0	32	7.0
10	10.750	1.25	15.4
300	323.9	32	10.0
12	12.750	1.25	22.0
200 JIS	216.3	30	4.6
	8.516	1.18	10.1
250 JIS	267.4	32	7.0
	10.528	1.25	15.4
300 JIS	318.5	32	10.0
	12.539	1.25	22.0

SW: segment-welded steel.

MODEL
7160T TRANSITION CAP

Shurjoint Model 7160T is an ideal transition fitting when a large reduction is required and can be used in place of more costly reducers or swaged nipples. In addition the 7160T can serve as a drain fitting.

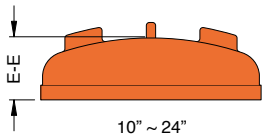


7160T

Nominal Size Grooved x Threaded mm / in	L mm / in	Weight Kgs / Lbs
50 x 25	23.8	0.25
2 x 1	0.94	0.55
50 x 32	23.8	0.25
2 x 1¼	0.94	0.55
65 x 25	23.8	0.44
2½ x 1	0.94	0.97
65 x 32	23.8	0.35
2½ x 1¼	0.94	0.77
65 x 40	23.8	0.30
2½ x 1½	0.94	0.70
80 x 25	25.4	0.65
3 x 1	1.0	1.43
80 x 32	25.4	0.65
3 x 1¼	1.0	1.43
80 x 40	25.4	0.60
3 x 1½	1.0	1.30
80 x 50	25.4	0.60
3 x 2	1.0	1.33
100 x 25	25.4	0.95
4 x 1	1.0	2.09
100 x 32	25.4	0.95
4 x 1¼	1.0	2.09
100 x 40	25.4	0.90
4 x 1½	1.0	2.00
100 x 50	25.4	0.90
4 x 2	1.0	1.98
150 x 25	25.4	2.50
6 x 1	1.0	5.52
150 x 32	25.4	2.50
6 x 1¼	1.0	5.52
150 x 40	25.4	2.50
6 x 1½	1.0	5.50
150 x 50	25.4	2.50
6 x 2	1.0	5.50

MODEL
7160H DOMED END CAP

Shurjoint 7160H end caps are cast of ductile iron and are designed to withstand pressure evenly over the entire spherical surface. The Model 7160H End Cap is designed for use on 10" - 24" mechanical piping applications.



10" ~ 24"

Nominal Size mm / in	Pipe O.D. mm / in	#7160H Domed End Cap E - E mm / in	#7160H Domed End Cap Weight Kgs / Lbs
250	273.0	76.1	5.5
10	10.750	3.00	12.1
300	323.90	76.1	7.4
12	12.750	3.00	16.3
350	355.6	102	11.95
14	14.000	4.00	26.35
400	406.4	102	14.5
16	16.000	4.00	31.97
450	457.2	127	17.8
18	18.000	5.00	39.24
500	508.0	152	24.5
20	20.000	6.00	53.9
550	558.8	152	44.0
22	22.000	6.00	97.0
600	609.6	152	34.5
24	24.000	6.00	75.9

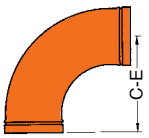
MODEL
7160P END CAP W/PLUG

Nominal Size mm / in	Pipe O.D. mm / in	7160P Plug Size mm / in
50	60.3	15
2	2.375	½
65	73.0	15
2½	2.875	½
76.1 mm	76.1	15
	3.000	½
80	88.9	15
3	3.500	0.5
100	114.3	25
4	4.500	1
125	141.3	25
5	5.563	1

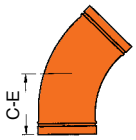
Nominal Size mm / in	Pipe O.D. mm / in	7160P Plug Size mm / in
139.7 mm	139.7	25
	5.500	1
150	168.3	25
6	6.625	1
165.1 mm	165.1	25
	6.500	1
200	219.1	40
8	8.625	1½
250	273.0	40
10	10.750	1½
300	323.9	40
12	12.750	1½

MODELS

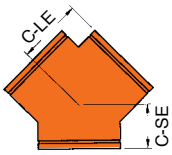
7110LR 1.5D 90° ELBOW
7111LR 1.5D 45° ELBOW
7137 TRUE-Y



7110LR
LR 90° Elbow, 1.5D



7111LR
LR 45° Elbow, 1.5D



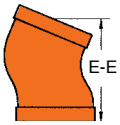
7137
True-Y

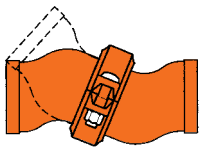
Nominal Size mm / in	Pipe O. D. mm / in	#7110LR 1.5D LR 90° Elbow C - E mm / in	#7110LR 1.5D LR 90° Elbow Kgs / Lbs	#7111LR 1.5D LR 45° Elbow C - E mm / in	#7111LR 1.5D LR 45° Elbow Kgs / Lbs	#7137 TRUE-Y C - LE mm / in	#7137 TRUE-Y C - SE mm / in	#7137 TRUE-Y Kgs / Lbs
50	60.3	111	1.1	70	0.8	83	70	1.1
2	2.375	4.38	2.4	2.75	1.8	3.25	2.75	2.5
65	73.0	127	1.8	76	1.4	95	76	1.7
2½	2.875	5.0	4.0	3.00	3.1	3.75	3.00	3.75
76.1 mm	76.1	127	1.8	76	1.45	95	76	1.8
	3.000	5.0	4.0	3.00	3.20	3.75	3.00	3.97
80	88.9	149	1.8	86	1.8	108	83	2.50
3	3.500	5.88	4.0	3.38	3.97	4.25	3.25	5.51
100	114.3	191	4.7	102	3.5	127	95	4.7
4	4.500	7.50	10.3	4.00	7.7	5.00	3.75	10.43
125	141.3	241	8.3	127	4.6	140	102	5.3
5	5.563	9.50	18.3	5.0	10.14	5.50	4.00	11.60
139.7 mm	139.7	241	8.3	127	4.6	140	102	6.8
	5.500	9.50	18.3	5.0	10.14	5.50	4.00	14.96
150	168.3	273	11.5	140	8.2	165	114	8.9
6	6.625	10.75	25.3	5.50	18.0	6.50	4.50	19.62
165.1 mm	165.1	273	11.5	140	8.2	165	114	8.9
	6.500	10.75	25.3	5.50	18.0	6.50	4.50	19.62
200	219.1	362	23.0	184	16.0	197	152	15.6
8	8.625	14.25	50.7	7.25	35.27	7.75	6.00	34.33
250	273.0	438	42.2	216	36.1	229	165	25.5
10	10.750	17.25	73.0	8.50	78.59	9.00	6.50	56.22
300	323.9	521	71.5	254	33.5	254	178	36.0
12	12.750	20.50	157.6	10.00	73.86	10.00	7.00	79.37

MODELS

7112G GOOSE NECK 22-½° ELBOW

Two model 7112G elbows in combination with a coupling will serve as a universal joint and is ideal for instances where a pipe line is in need of a slight adjustment during make-up.



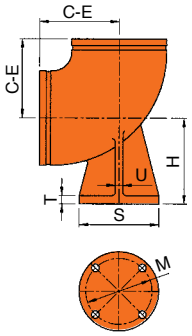


Nominal Size mm / in	Pipe O.D. mm / in	7112G 22½° Elbows E - E mm / in	7112G 22½° Elbows Weight Kgs / Lbs
40	48.3	95 G	0.6
1½	1.900	3.75	1.3
50	60.3	95 G	0.8
2	2.375	3.75	1.3
65	73.0	102 G	1.0
2½	2.875	4.00	2.2
80	88.9	114 G	1.4
3	3.500	4.50	3.1
100	114.3	127 G	2.0
4	4.500	5.00	4.4
125	141.3	127 G	3.3
5	5.563	5.00	7.3
150	168.3	159 G	5.0
6	6.625	6.25	11.0
200	219.1	197 G	10.0
8	8.625	7.75	22.0
200JIS	216.3	197 G	10.0
	8.516	7.75	22.0

MODEL

7110-B 90° ELBOW WITH BASE SUPPORT

The Model 7110-B is a ductile iron 90° grooved-end elbow with base support, designed for installation at the bottom of a riser system. An anchor can be placed in conjunction with the base to support the weight of the pipe, coupling and fluid.

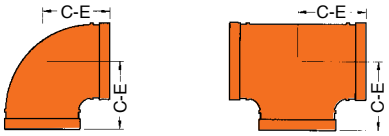


Nominal Size mm / in	Pipe O. D. mm / in	Dimensions C - E mm / in	H mm / in	U mm / in	T mm / in	S mm / in	M mm / in	Weight Kgs / Lbs
80	88.9	108	124	13	14	127	99	4.75
3	3.500	4.25	4.88	0.50	0.56	5.00	3.88	10.47
100	114.3	127	140	13	16	152	121	6.91
4	4.500	5.00	5.50	0.50	0.62	6.00	4.75	15.23
150	168.3	165	178	16	18	178	140	11.93
6	6.625	6.50	7.00	0.62	0.69	7.00	5.50	26.30
200	219.1	197	213	22	24	229	191	46.1
8	8.625	7.76	8.38	0.88	0.94	9.00	7.50	101.4
250	273.0	229	248	22	24	229	191	20.00
10	10.750	9.02	9.75	0.88	0.94	9.00	7.50	44.00
300	323.9	254	286	25	25	279	241	32.00
12	12.750	10.00	11.25	1.00	1.00	11.00	9.50	70.40

MODELS

901 90° SR ELBOW
903 SR TEE

Shurjoint short radius fittings, while primarily designed for fire protection applications, can also be used for general service requirements.

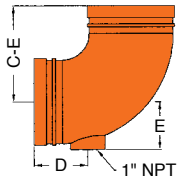


Nominal Pipe Size mm / in	Pipe O.D. mm / in	#901 SR 90° Elbow C - E mm / in	#901 SR 90° Elbow Weight Kgs / Lbs	#903 SR Straight Tee C - E mm / in	#903 SR Straight Tee Weight Kgs / Lbs
50	60.3	70	0.7	70	1.0
2	2.375	2.75	1.5	2.75	2.2
65	73.0	76	0.9	76	1.3
2½	2.875	3.00	2.0	3.00	2.9
76.1mm	76.1	76	1.1	76	1.3
	3.000	3.00	2.5	3.00	2.9
80	88.9	86	1.4	86	2.0
3	3.500	3.38	3.1	3.38	4.4
100	114.3	102	2.2	102	3.6
4	4.500	4.00	4.9	4.00	7.9
125	139.7	124	3.6	124	5.1
5	5.500	4.88	7.9	4.88	11.1
125	141.3	124	3.6	124	4.6
5	5.563	4.88	7.9	4.88	10.1
165.1mm	165.1	140	5.9	140	7.5
	6.500	5.50	12.9	5.50	16.5
150	168.3	140	5.9	140	7.8
6	6.625	5.50	12.9	5.50	17.2
200	219.1	176	10.6	176	16.5
8	8.625	6.94	23.4	6.94	36.3

MODEL

7110DR DRAIN ELBOW

The Model 7110DR is a grooved-end ductile iron cast elbow with an integral 1" NPT or BSP drain. The 7110DR is designed for use in fire protection and general service applications.

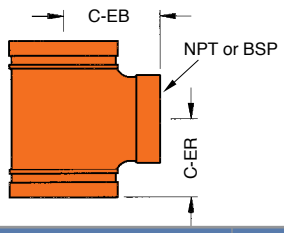


Nominal Pipe Size mm / in	Pipe O.D. mm / in	Dimensions C - E mm / in	Dimensions D mm / in	Dimensions E mm / in	Weight Kgs / Lbs
50	60.3	83	57.2	40	1.0
2	2.375	3.27	2.25	1.57	2.2
65	73.0	95	70	40	1.3
2½	2.875	3.75	2.75	1.57	2.8
76.1mm	76.1	95	70	40	1.3
	3.000	3.75	2.75	1.57	2.8
80	88.9	108	70	49	2.1
3	3.500	4.25	2.75	1.93	4.6
100	114.3	127	70	63	3.0
4	4.500	5.00	2.75	2.48	6.6
165.1mm	165.1	165	70	90	6.1
	6.500	6.50	2.75	3.54	13.4
150	168.3	165	70	90	6.1
6	6.625	6.50	2.75	3.54	13.4
200	219.1	197	83	114	11.6
8	8.625	7.76	3.27	4.49	25.6

MODEL

7127 STANDPIPE TEE

The Model 7127 is a grooved-end tee with a 2½" NPT/BSP threaded branch, specially designed for use on fire protection standpipes.

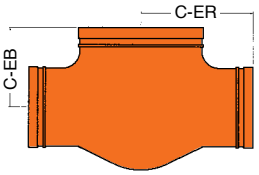


Nominal Size mm / in	Pipe O.D. mm / in	Dimensions C - ER mm / in	Dimensions C - EB mm / in	Weight Kgs / Lbs
100 x 100 x 65	114.3 x 114.3 x 73.0	83	102	2.65
4 x 4 x 2½	4.500 x 4.500 x 2.875	3.25	4.00	5.84
150 x 150 x 65	168.3 x 168.3 x 73.0	83	127	4.30
6 x 6 x 2½	6.625 x 6.625 x 2.875	3.25	5.00	9.48

MODEL

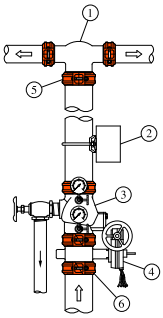
7125 BULLHEAD TEE

The Model 7125 is a grooved-end bullhead tee, specifically designed for use on fire protection systems. The 7125 allows you to directly split the flow into two reduced branch lines without the need for concentric reducers and multiple couplings.



Nominal Pipe Size mm / in	Pipe O.D. mm / in	Dimensions C - ER mm / in	Dimensions C - EB mm / in	Weight Kgs / Lbs
50 x 50 x 65	60.3 x 60.3 x 73.0	95	83	1.83
2 x 2 x 2½	2.375 x 2.375 x 2.875	3.74	3.27	4.03
50 x 50 x 80	60.3 x 60.3 x 88.9	108	95	1.97
2 x 2 x 3	2.375 x 2.375 x 3.500	4.25	3.74	4.34
50 x 50 x 100	60.3 x 60.3 x 114.3	127	102	3.20
2 x 2 x 4	2.375 x 2.375 x 4.500	5.00	4.02	7.05
65 x 65 x 80	73.0x 73.0 x 88.9	108	95	2.55
2½ x 2½ x 3	2.875 x 2.875 x 3.500	4.25	3.75	5.62
65 x 65 x 100	73.0 x 73.0 x 114.3	127	102	3.32
2½ x 2½ x 4	2.875 x 2.875 x 4.500	5.00	4.00	7.32
80 x 80 x 100	88.9 x 88.9 x 114.3	127	102	3.60
3 x 3 x 4	3.500 x 3.500 x 4.500	5.00	4.00	7.94
100x 100 x 150	114.3 x 114.3 x 168.3	165	127	6.80
4 x 4 x 6	4.500 x 4.500 x 6.625	6.50	5.00	14.99
125 x 125 x 200	141.3 x 141.3 x 219.1	197	140	14.00
5 x 5 x 8	5.563 x 5.563 x 8.625	7.75	5.50	31.00
150 x 150 x 200	168.3 x 168.3 x 219.1	197	165	13.21
6 x 6 x 8	6.625 x 6.625 x 8.625	7.75	6.50	29.12

Fire Protection Applications



1. 7125 Bullhead Tee
2. Waterflow Indicator
3. RCV Riser Check Valve With Trim Kit
4. SJ-700W Butterfly Valve
5. 7707/7705 Flexible Couplings
6. Z07/7771 Rigid Couplings

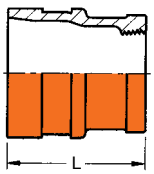
MODEL

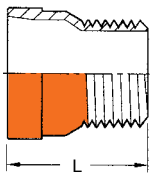
7150F REDUCING SOCKET (GR X FT)
7150M REDUCING NIPPLE (GR X MT)

The **Shurjoint** Models 7150F & 7150M are designed for making a direct reduction from a grooved system to a female or male threaded system without the need for more costly swaged nipples or adapters.

7150F

7150M



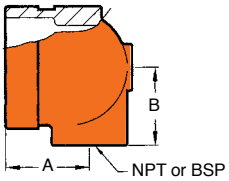


Nominal Size Grooved x Threaded mm / in	7150F L mm / in	7150F Weight Kgs / Lbs	7150M L mm / in	7150M Weight Kgs / Lbs	Nominal Size Grooved x Threaded mm / in	7150F L mm / in	7150F Weight Kgs / Lbs	7150M L mm / in	7150M Weight Kgs / Lbs
40 x 25	63.5	0.27	63.5	0.24	80 x 76.1mm	63.5	1.00	63.5	1.00
1½ x 1	2.5	0.60	2.5	0.53		2.5	2.20	2.5	2.20
50 x 25	63.5	0.42	63.5	0.40	100 x 32	76.1	1.06	76.1	0.99
2 x 1	2.5	0.92	2.5	0.88	4 x 1¼	3	2.33	3	2.19
50 x 32	63.5	0.46	63.5	0.32	100 x 40	76.1	0.93	76.1	0.93
2 x 1¼	2.5	1.01	2.5	0.70	4 x 1½	3	2.05	3	2.05
50 x 40	63.5	0.43	63.5	0.47	100 x 50	76.1	1.03	76.1	1.05
2 x 1½	2.5	0.95	2.5	1.04	4 x 2	3	2.29	3	2.31
65 x 25	63.5	0.55	63.5	0.40	100 x 65	76.1	1.02	76.1	0.93
2 ½ x 1	2.5	1.21	2.5	0.88	4 x 2½	3	2.25	3	2.05
76.1mm x 25	63.5	0.55	63.5	0.75	100 x 76.1mm	76.1	1.02	76.1	0.93
	2.5	1.21	2.5	1.64		3	2.25	3	2.05
65 x 32	63.5	0.53	63.5	0.72	125 x 40	88.9	1.79	88.9	0.93
2 ½ x 1¼	2.5	1.17	2.5	1.59	5 x 1½	3.5	3.94	3.5	2.05
76.1mm x 32	63.5	0.53	63.5	0.72	139.7mm x 40	88.9	1.79	88.9	0.93
	2.5	1.17	2.5	1.59		3.5	3.94	3.5	2.05
65 x 40	63.5	0.49	63.5	0.78	150 x 40	101.6	2.94	101.6	2.20
2 ½ x 1½	2.5	1.08	2.5	1.72	6 x 1½	4	6.47	4	4.84
76.1mm x 40	63.5	0.49	63.5	0.78	165.1mm x 40	101.6	2.52	101.6	2.16
	2.5	1.08	2.5	1.72		4	5.56	4	4.75
65 x 50	63.5	0.69	63.5	0.42	150 x 50	101.6	2.40	101.6	2.23
2½ x 2	2.5	1.52	2.5	0.92	6 x 2	4	5.28	4	4.91
76.1mm x 50	63.5	0.69	63.5	0.49	165.1mm x 50	101.6	2.40	101.6	2.23
	2.5	1.52	2.5	1.09		4	5.28	4	4.91
80 x 25	63.5	0.87	63.5	0.57	150 x 65	101.6	2.48	101.6	2.26
3 x 1	2.5	1.91	2.5	1.25	6 x 2½	4	5.46	4	4.97
80 x 32	63.5	0.68	63.5	0.76	165.1mm x 65	101.6	2.00	101.6	2.26
3 x 1¼	2.5	1.50	2.5	1.67		4	4.40	4	4.97
80 x 40	63.5	0.74	63.5	0.74	150 x 100	101.6	2.89	101.6	2.10
3 x 1½	2.5	1.63	2.5	1.63	6 x 4	4	6.37	4	4.62
80 x 50	63.5	0.71	63.5	0.60	165.1mm x 100	101.6	2.10	101.6	2.10
3 x 2	2.5	1.56	2.5	1.32		4	4.62	4	4.62
80 x 65	63.5	1.00	63.5	1.00					
3 x 2½	2.5	2.20	2.5	2.20					

MODEL

899 END-ALL FITTING

The Model 899 End-All fitting is a unique domed end cap fitting available with a ½", ¾" or 1" NPT or BSP threaded outlet. Designed as an end of line fitting, the End-All features two multi-function bosses which can be used for the direct connection of sprinkler heads, sprigs, drops, drains and or gauges.

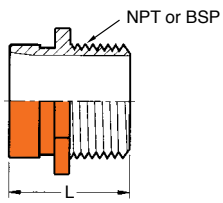


Nominal Size Grooved x Threaded mm / in	Dimensions A mm / in	Dimensions B mm / in	Weight Kgs / Lbs
32 x 15	44.5	30.1	0.3
1¼ x ½	1.750	1.190	0.7
32 x 20	44.5	30.1	0.3
1¼ x ¾	1.750	1.190	0.7
32 x 25	48.3	31.8	0.3
1¼ x 1	1.900	1.250	0.7
40 x 15	44.5	33.3	0.4
1½ x ½	1.750	1.313	0.9
40 x 20	44.5	33.3	0.4
1½ x ¾	1.750	1.313	0.9
40 x 25	48.3	34.9	0.4
1½ x 1	1.900	1.375	0.9
50 x 15	44.5	39.7	0.5
2 x ½	1.750	1.562	1.1
50 x 20	44.5	39.7	0.5
2 x ¾	1.750	1.562	1.1
50 x 25	48.3	41.3	0.5
2 x 1	1.900	1.625	1.1
65 x 15	44.5	44.5	0.6
2½ x ½	1.750	1.750	1.3
65 x 20	44.5	44.5	0.6
2½ x ¾	1.750	1.750	1.3
65 x 25	48.3	46.0	0.6
2½ x 1	1.900	1.813	1.3

MODEL

55 ADAPTER NIPPLE (GR X MT)

The **Shurjoint** Model 55 is an integral cast adapter that allows for a direct transition from a grooved system to a male threaded system or component. For other sizes see page 55, Models 57 through 59 nipples adapters.



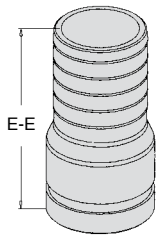
Nominal Size Grooved x Threaded mm / in	L mm / in	Weight Kgs / Lbs
40 x 40M	63.5	0.35
1½ x 1½M	2.50	0.77
50 x 50M	63.5	0.40
2 x 2M	2.50	0.90

MODEL

56 HOSE NIPPLE

The **Shurjoint** Model 56 hose nipple allows for a direct connection with rubber or plastic hoses.

Material: Ductile iron ASTM A536 Gr. 65-45-12 and or ASTM A395 Gr. 65-45-15.



Nominal Size mm / in	Pipe O.D. mm / in	E - E mm / in	Weight Kgs / Lbs
32	42.2	92	0.3
1¼	1.660	3.6	0.7
40	48.3	102	0.3
1½	1.900	4.0	0.7
50	60.3	117	0.6
2	2.375	4.6	1.2
65	73.0	140	1.0
2½	2.875	5.5	2.2
80	88.9	152	1.5
3	3.500	6.0	3.3
100	114.3	184	2.5
4	4.500	7.25	5.5
125	141.3	248	3.7
5	5.563	9.75	8.1
150	168.3	279	6.6
6	6.625	11.0	14.5
200	219.1	318	11.0
8	8.625	12.5	24.2