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	

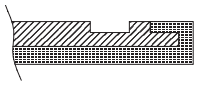
*Working pressure is based on roll- or cut-grooved standard wall carbon steel pipe.
*Proof test pressure: 1.5 times the working pressure, non-shock cold water.
*Burst pressure is engineered minimum 3 times the working pressure.

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

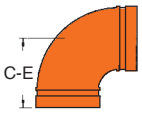
Nominal Size mm / in	Pipe O.D. mm / in	Pipe Wall Thickness mm / in	Elbows					Tees	
			#7110 90° Std. Radius meters / feet	#901 90° Short. Radius meters / feet	#7110LR 90° 1½ D. LR meters / feet	#7111 45° Std. Radius meters / feet	#7111LR 45° 1½ D. LR meters / feet	#7120 Branch meters / feet	#903 Branch 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	4.0	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 12.0 feet (3.7 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.

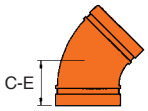
©Copyright 2012 Shurjoint

MODEL
7110 90° ELBOW
7111 45° ELBOW
7112 22-½° ELBOW
7113 11-¼° ELBOW

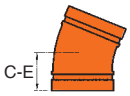
Shurjoint ductile iron grooved-end fittings are made of ductile iron per ASTM A536 Gr. 65-45-12 and or ASTM A395 Gr. 65-45-15. C-E dimensions are manufacturer's standard. See page 56 for wrought steel grooved-end fittings.



7110
90˚ Elbow



7111
45˚ Elbow



7112
22½˚ Elbow

7113
11¼˚ Elbow

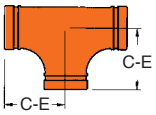
Nominal Size mm / in	Pipe O. D. mm / in	#7110 90˚ Elbow C - E mm / in	#7110 90˚ Elbow Weight Kgs / Lbs	#7111 45˚ Elbow C - E mm / in	#7111 45˚ Elbow Weight Kgs / Lbs	#7112 22½˚ Elbow C - E mm / in	#7112 22½˚ Elbow Weight Kgs / Lbs	#7113 11¼˚ Elbow C - E mm / in	#7113 11¼˚ Elbow Weight Kgs / Lbs
25	33.4	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	24.1	121	15.5	111	17.7	54	10.0
	10.528	9.00	53.0	4.75	34.2	4.38	38.9	2.13	22.1
300JIS	318.5	254	36.7	133	22.5	---	---	57	12.4
	12.539	10.00	80.8	5.25	49.5	---	---	2.25	27.3
350	355.6	280	35.2	152	22.0	---	21.0	---	---
14	14.000	11.00	77.4	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	---	---	---	---

©Copyright 2012 Shurjoint

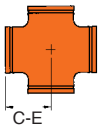
MODEL

7120 TEE
7135 CROSS
7130 45° LATERAL

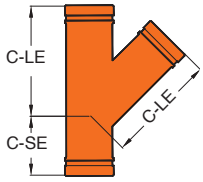
Shurjoint ductile iron grooved-end fittings are made of ductile iron per ASTM A536 Gr. 65-45-12 and or ASTM A395 Gr. 65-45-15. C-E dimensions are manufacturer's standard. See page 56 for wrought steel grooved-end fittings.



7120 Tee



7135 Cross



7130
45˚ Lateral

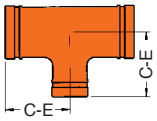
Nominal Size mm / in	Pipe O. D. mm / in	#7120 Tee C - E mm / in	#7120 Tee Weight Kgs / Lbs	#7135 Cross C - E mm / in	#7135 Cross Weight Kgs / Lbs	#7130 45˚ Lateral C - LE mm / in	#7130 45˚ Lateral C - SE mm / in	#7130 45˚ Lateral Weight Kgs / Lbs
25	33.4	57	0.4	---	---	---	---	---
1	1.315	2.25	0.9	---	---	---	---	---
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	---	---	---	---	---

©Copyright 2012 Shurjoint

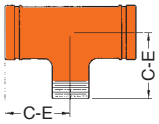
MODEL

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 56 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	127	127	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	5.00	5.00	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					

©Copyright 2012 Shurjoint