



RING JOINT SYSTEMS

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COUPLING MATERIAL SPECIFICATIONS

Housing:

- Ductile Iron to ASTM A 536, Gr. 65-45-12 and or to ASTM A 395, Gr. 65-45-15, min. tensile strength 4481 Bar (65,000 psi).
 - Sizes 200 to 650mm (8" to 26") consist of two housing segments
 - 700 to 950mm (28" to 38") consist of six housing segments
 - 1000 to 2400mm (40" to 96") consist of eight housing segments

Surface Finish:

- Standard painted in orange or RAL 3000 red.
- (Option) Hot dip zinc galvanised
- (Option) Epoxy Coatings in RAL 3000 red or other colours
- (Option) Polyamide 11 (Nylon) coating

Weld Rings:

- Carbon Steel SAE J403 (ANSI) 1020.
- Stainless steel: 304, 316, 316L.

Rubber Gasket:

- **Grade "E" EPDM** (Colour code: Green stripe)
Good for cold & hot water up to 110°C (230°F). Also good for services for water with acid, water with chlorine, deionized water, seawater and waste water, dilute acids, oil-free air and many chemicals. Not recommended for petroleum oils, minerals oils, solvents and aromatic hydrocarbons.
Maximum Temperature Range: -34°C to 110°C (-30°F to 230°F)*.
*EPDM gaskets for water services are not recommended for steam services unless couplings or components are accessible for frequent gasket replacement.
- (Option) **Grade "T" Nitrile** (Colour code: Orange stripe) Recommended for petroleum products, air with oil vapors, vegetable and mineral oils within the specified temperature range. Also good for water services under 66°C (150°F). Temperature range: -29°C to 82°C (-20°F to 180°F).
Do not use for HOT WATER above 66°C (150°F) or HOT DRY AIR above 60°C (140°F).
- Other options: **Grade "M" – Halogenated Butyl.**

For additional details contact a GRINNELL Sales Representative.

Bolts & Nuts:

- 20 to 25mm ($\frac{3}{4}$ " to 1"): Heat treated carbon steel track bolts to ASTM A 183 Gr. 2, minimum tensile strength 7584 Bar (110,000 psi), Zinc electroplated, with heavy-duty hexagonal nuts to ASTM A563.
- 32 to 40mm ($1\frac{1}{4}$ " to $1\frac{1}{2}$ ") sizes: Carbon steel hex. bolts to ASTM A 307 Gr. A or B, minimum strength 4136 Bar (60,000 psi), Zinc electroplated, with hexagonal nuts to ASTM A 563.
- Stainless steel bolts and stainless steel nuts or Silicone-Bronze nut are available upon request.

Ring Joint Specifications

Shurjoint Tech Data Sheet: O-01

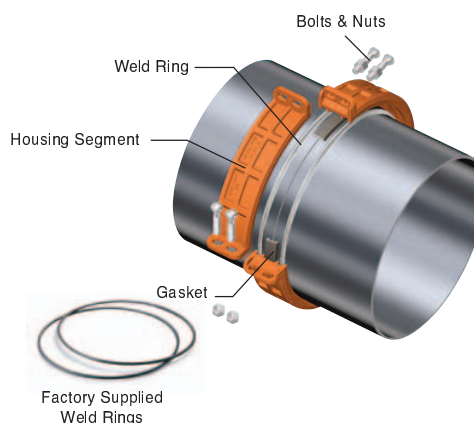


Maximum Internal Service Pressures of Carbon Steel Pipe ASTM A53 Gr. B.			
Nominal Size mm Inches	XS 0.5" Bar psi	STD 0.375" Bar psi	LW 0.25" / 0.312" Bar psi
200	109.4	69.4	53.6
8	1586	1006	777
250	87.0	63.0	42.8
10	1262	913	621
300	72.9	54.3	36.0
12	1058	788	522
350	66.3	49.4	32.8
14	962	717	475
400	57.8	43.1	28.6
16	839	625	415
450	51.3	38.3	25.4
18	744	555	368
500	46.1	34.4	22.8
20	668	499	331
600	38.3	28.6	19.0
24	555	415	275
650	35.3	26.3	21.9
26	512	382	318
700	32.8	24.5	20.3
28	475	355	295
750	30.5	22.8	19.0
30	443	331	275
800	28.6	21.4	17.8
32	415	310	258
900	25.4	19.0	15.8
36	368	275	229
950	24.1	18.0	15.0
38	349	261	217
1000	22.8	17.1	14.2
40	331	248	206
1050	21.7	16.3	12.9
42	315	236	187
1100	20.8	15.5	—
44	301	225	—
1200	19.0	14.2	—
48	275	206	—
1300	17.5	13.1	—
52	254	190	—
1350	16.9	12.6	—
54	245	183	—
1400	16.3	12.2	—
56	236	177	—
1500	15.2	11.4	—
60	220	165	—
1650	13.8	10.3	—
66	200	150	—
1700	13.4	10.0	—
68	194	145	—
1800	12.6	9.4	—
72	183	137	—
2100	10.8	8.1	—
84	157	118	—
2400	9.4	7.1	—
96	137	103	—

Except * 200mm (8"): 8.2mm (0.322");
250 to 600mm (10" to 24"): 6.4mm (0.25");
650 to 1050mm (26" to 42"): 7.9mm (0.312")

Ring Joint Coupling The ring joint coupling provides a much more secure joint than a comparable roll-grooved system, simply because the contact area of the rings is much greater than that of the roll-groove profile. In addition, the welded rings are able to withstand 2 - 3 times the shearing forces of roll grooves. High pressure couplings up to 260 Bar (3770 psi) are available.

#R-88 Ring Joint Coupling



Max. Internal Service Pressures of Carbon Steel Pipe ASTM A53 Gr. B

When designing a piping system you must select pipe with the appropriate wall thickness to correspond with the intended working pressure of the system. The table lists design working pressure by the pipe wall schedule, XS, STD and LW, of representative ASTM A53 Gr. B carbon steel pipe calculated in accordance with the formula stipulated in ASME B31.1 Power Piping 104.1.

$$P = \frac{2SE (tm-A)}{Do - 2y (tm - A)}$$

Where:

- P = Maximum internal service pressure (psi)
- SE = Allowable stress (psi)
(ASTM A53 Gr. B = 1034 Bar (15,000 psi))
- tm = Minimum pipe wall thickness (inch)
(87.5% of nominal wall thickness)
- Do = Outside diameter of pipe (inch)
- y = A coefficient (For ferritic steels 316°C (600°F) or below = 0.4)
- A = Additional thickness (inch) (A = 0)

General notes:

Additional information is included in our data sheets and is available upon request. It is the Designer's responsibility to select products suitable for the intended service and to ensure that pressure ratings and performance data is not exceeded. Always read and understand the installation constructions. Never remove any piping components nor correct or modify any piping deficiencies without first depressurizing and draining the system. Material and gasket selection should be verified with the gasket recommendation listing for the specific application.

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Shurjoint Model R-88 Ring Joint Couplings

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Shurjoint Tech Data Sheet: O-01



The Shurjoint Model R-88 Ring Joint Coupling is an ideal pipe joining method when pipe is difficult to groove or when grooving is not the preferred joining method. Available in sizes 200 thru 2400mm (8" to 96") the R-88 offers ease of use and excellent performance.

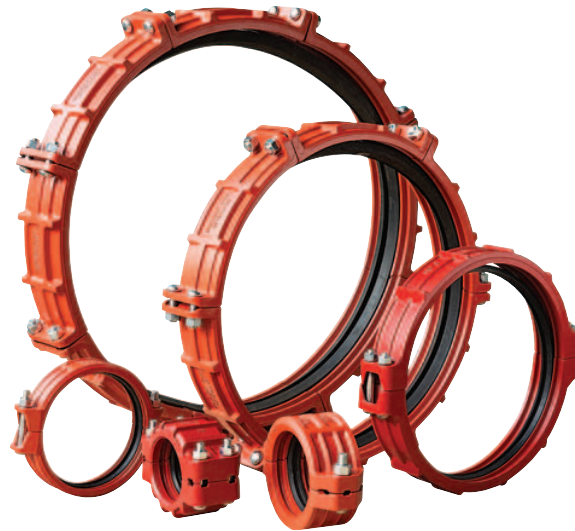
The Model R-88 Ring Joint Coupling is supplied with a pair of factory supplied weld rings. For installation weld a factory-supplied weld ring on each pipe end to be connected, next mount the rubber gasket over the pipe ends, place coupling segments over the gasket and fasten the bolts and nuts.

The R-88 Ring Joint Coupling is considered a shoulder coupling with the factory supplied weld rings serving as the joint shoulders. The R-88's performance standards meet and or exceed the requirements of ASTM F1476 and AWWA C606. The factory supplied weld rings offer a much more economical and convenient alternative to traditional shoulder rings, such as Type A, B, C, D, E, and G rings.

The R-88 Coupling can also be used on stainless steel pipe with optional weld rings available in compatible stainless steel grades. Check with GRINNELL for details and availability.

Typical applications

- Water & Waste Water Treatment Plants
- Mining & Tunnel Boring
- Pulp & Paper
- Hydroelectric Plants
- Co-Gen Electric Plants
- Food & Beverage
- Compressed Air
- HVAC



The Model R-88 Ring Joint Coupling is available in sizes from 200mm (8"). Sizes 350 to 650mm (14" to 26") are now available either in a two-segment style (R-88N) or multi-segment style (R-88). The two-segment style offers a easier and faster installation. Sizes 700 to 2400mm (28" to 96"). The larger diameter couplings are comprised of 6 to 8 housing segments depending on the size and feature two bolts at each joint segment to ensure a positive connection.



Pressure-Temperature Rating

Size mm Inches	Nom. Rating	Working Pressure (STD)	Max. Service Temperature
200 - 600 8" - 24"	Class 250	20 Bar @38°C 300 psi @100°F	EPDM: 110°C
			EPDM: 230°F
			Nitrile: 82°C
650 26"	Class 150	20 Bar @38°C 300 psi @100°F	Nitrile: 180°F
			EPDM: 110°C
			EPDM: 230°F
700 - 900 28" - 36"	Class 150	20 Bar @38°C 300 psi @100°F	Nitrile: 82°C
			Nitrile: 180°F
			EPDM: 110°C
950 - 2400 38" - 96"	Class 125	12 Bar @38°C 175 psi @100°F	EPDM: 230°F
			Nitrile: 82°C
			Nitrile: 180°F

*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 for sizes up to 300mm (12") and 2 times for sizes 400mm (14") & above.

Ring
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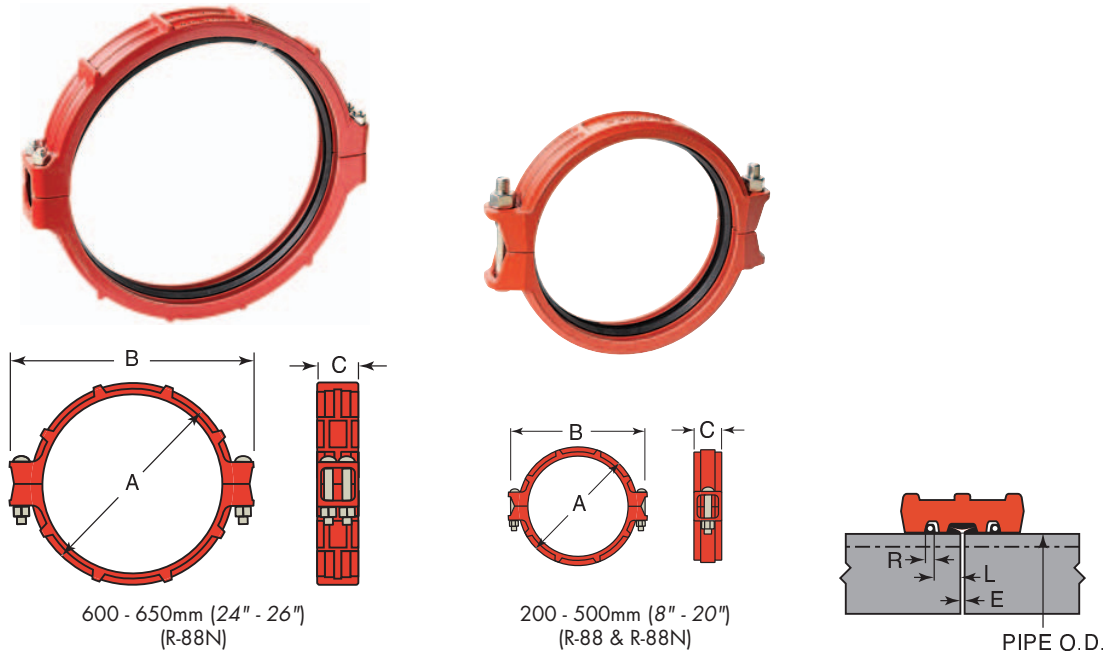


A 700mm (28") R-88 coupling installed in a chill water system

Shurjoint Model R-88 Ring Joint Couplings

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Shurjoint Tech Data Sheet: O-01



Pipe Size		Max. Working Pressure Rings both sides fully welded			Dimensions			Bolt Size		Sealing Surface L	Ring Size R	Separation E (max)	Approx. Weight kg Lbs.
Nominal mm Inches	O.D. mm Inches	XS (.500") Bar psi	STD (.375") Bar psi	LW (.312") Bar psi	A mm Inches	B mm Inches	C mm Inches	No.	mm Inches	mm Inches	mm Inches	mm Inches	
200	219.1	40	28	28	256	330	79	2	3/4 x 4 3/4	23	6	4.8	7.6
8	8.625	600	400	400	10.08	13.00	3.11			0.91	1/4	0.19	16.8
250	273.0	40	28	28	312	386	83	2	3/4 x 4 3/4	23	6	4.8	10.1
10	10.750	600	400	400	12.29	15.20	3.25			0.91	1/4	0.19	22.2
300	323.9	40	28	28	374	455	86	2	7/8 x 6 1/2	26	8	4.8	14.0
12	12.750	600	400	400	14.72	17.90	3.39			1.02	5/16	0.19	30.8
350 (R-88N)	355.6	40	28	24	405	493	93	2	7/8 x 5 1/2	26	8	6.4	17.4
14	14.000	600	400	350	15.93	19.40	3.65			1.02	5/16	0.25	38.3
400 (R-88N)	406.4	35	28	24	455	547	93	2	7/8 x 5 1/2	26	8	6.4	18.7
16	16.000	500	400	350	17.92	21.52	3.65			1.02	5/16	0.25	41.1
450 (R-88N)	457.2	35	28	24	517	614	107	2	1 x 5 1/2	30	8	9.5	23.1
18	18.000	500	400	350	20.37	24.17	4.23			1.18	5/16	0.375	50.8
500 (R-88N)	508.0	35	28	20	570	660	110	2	1 x 5 1/2	30	9.5	9.5	38.2
20	20.000	500	400	300	22.46	25.99	4.35			1.18	3/8	0.375	84.0
600 (R-88N)	609.6	35	28	17	690	762	123	4	7/8 x 6 1/2	30	12.7	9.5	49.7
24	24.000	500	400	250	27.17	30.0	4.84			1.18	1/2	0.375	109.3
650 (R-88N)	660.4	28	20	17	751	852	170	4	1 x 8 7/8	50	12.7	9.5	78.7
26	26.000	400	300	250	29.58	32.78	6.69			2.00	1/2	0.375	173.5

R-88N is a two-segment type coupling.

Refer to the Shurjoint technical data sheet for complete technical information and installation instructions. More information about Shurjoint Piping Products can be found on page 14 in the General Data section of this book or on www.shurjoint.com.

See page 209 for Ring Joint specifications

For information on alternative sizes, contact a GRINNELL Sales Representative.

For instructions on part numbers, ordering information, and availability, refer to page 15 or contact a GRINNELL Sales Representative.

Ring
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Shurjoint Model R-88 Ring Joint Couplings

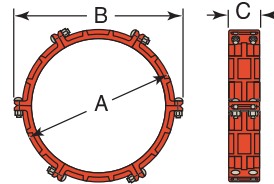
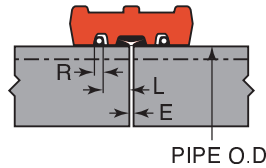
Large Diameter

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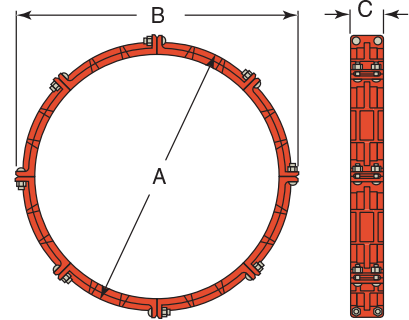
Shurjoint Tech Data Sheet: O-01



R-88
Size: 1200mm (48")



700 - 950mm (28" - 38")



1000 - 2400mm (40" - 96")

Pipe Size		Max. Working Pressure Rings both sides fully welded			Dimensions			Bolt Size		Sealing Surface L	Ring Size R	Separation E (max)	Approx. Weight
Nominal mm Inches	O.D. mm Inches	XS (.500") Bar psi	STD (.375") Bar psi	LW (.312") Bar psi	A mm Inches	B mm Inches	C mm Inches	No.	mm Inches	mm Inches	mm Inches	mm Inches	kg Lbs.
700	711.2	28	20	17	806	902	171	12	7/8 x 4	50	12.7	12.7	101.0
28	28.000	400	300	250	31.75	35.50	6.73	12	1 x 3 1/2	50	12.7	12.7	222.2
750	762.0	28	20	17	857	955	171	12	1 x 3 1/2	50	12.7	12.7	99.5
30	30.000	400	300	250	33.75	37.60	6.73	12	1 x 3 1/2	50	12.7	12.7	218.9
800	812.8	28	20	17	908	1003	171	12	1 x 3 1/2	50	12.7	12.7	102.2
32	32.000	400	300	250	35.75	39.50	6.73	12	1 x 3 1/2	50	12.7	12.7	225.4
850	863.4	24	20	14	959	1054	171	12	1 x 3 1/2	50	12.7	12.7	115.0
34	34.000	350	300	200	37.75	41.50	6.73	12	1 x 3 1/2	50	12.7	12.7	253.0
900	914.4	24	20	14	1010	1103	171	12	1 x 3 1/2	50	12.7	12.7	111.6
36	36.000	350	300	200	39.75	43.50	6.73	12	1 x 3 1/2	50	12.7	12.7	246.0
950	965.2	20	16	12	1060	1156	171	12	1 x 3 1/2	50	12.7	12.7	125.0
38	38.000	300	232	175	41.75	45.50	6.73	12	1 x 3 1/2	50	12.7	12.7	275.0
1000	1016.0	20	16	12	1135	1229	198	16	1 x 3 1/2	60	15.9	15.9	141.0
40	40.000	300	232	175	44.69	48.39	7.80	16	1 x 3 1/2	60	15.9	15.9	310.2
1050	1066.8	20	16	12	1186	1280	198	16	1 1/4 x 5	60	15.9	15.9	148.6
42	42.000	300	232	175	46.70	50.39	7.80	16	1 1/4 x 5	60	15.9	15.9	326.9
1100	1117.6	20	16	12	1236	1318	198	16	1 1/4 x 5	60	15.9	15.9	156.0
44	44.000	300	232	175	48.66	51.89	7.80	16	1 1/4 x 5	60	15.9	15.9	343.2
1200	1219.2	20	16	---	1338	1420	198	16	1 x 3 1/2	60	15.9	15.9	211.8
48	48.000	300	232	---	52.68	55.91	7.80	16	1 x 3 1/2	60	15.9	15.9	466.7
1300	1320.8	16	12	---	1555	1539	198	16	1 1/4 x 5	60	15.9	15.9	206.0
52	52.000	232	175	---	61.25	60.60	7.80	16	1 1/4 x 5	60	15.9	15.9	453.2
1350	1371.6	16	12	---	1660	1590	198	16	1 1/4 x 5	60	15.9	15.9	214.6
54	54.000	232	175	---	63.25	62.60	7.80	16	1 1/4 x 5	60	15.9	15.9	472.1
1400	1422.4	16	12	---	1660	1641	198	16	1 1/4 x 5	60	15.9	15.9	222.0
56	56.000	232	175	---	65.38	64.60	7.80	16	1 1/4 x 5	60	15.9	15.9	488.2
1500	1524.0	16	12	---	1762	1742	198	16	1 1/4 x 5	60	15.9	15.9	244.2
60	60.000	232	175	---	69.38	68.60	7.80	16	1 1/4 x 5	60	15.9	15.9	537.2
1650	1676.4	12	8.6	---	1932	1925	216	16	1 1/2 x 5	60	19.1	19.1	278.4
66	66.000	175	125	---	76.00	75.79	8.00	16	1 1/2 x 5	60	19.1	19.1	612.5
1700	1727.2	12	8.6	---	1994	1976	216	16	1 1/2 x 5	60	19.1	19.1	357.0
68	68.000	175	125	---	78.50	77.79	8.00	16	1 1/2 x 5	60	19.1	19.1	785.4
1800	1828.8	10	8.6	---	2095	2078	216	16	1 1/2 x 5	60	19.1	19.1	335.3
72	72.000	150	125	---	82.50	81.81	8.00	16	1 1/2 x 5	60	19.1	19.1	737.7
2100	2133.6	8.6	7	---	2406	2383	216	16	1 1/2 x 5	60	19.1	19.1	354.7
84	84.000	125	100	---	94.75	93.81	8.00	16	1 1/2 x 5	60	19.1	19.1	780.3
2400	2438.4	8.6	7	---	2711	2662	216	16	1 1/2 x 5	60	19.1	19.1	374.2
96	96.000	125	100	---	106.75	105.79	8.00	16	1 1/2 x 5	60	19.1	19.1	823.2

For information on alternative sizes, contact a GRINNELL Sales Representative.

Refer to the Shurjoint technical data sheet for complete technical information and installation instructions. More information about Shurjoint Piping Products can be found on page 14 in the General Data section of this book or on www.shurjoint.com.

See page 209 for Ring Joint specifications

For instructions on part numbers, ordering information, and availability, refer to page 15 or contact a GRINNELL Sales Representative.

Shurjoint Model RH-1000 1000 PSI Ring Joint Couplings

Shurjoint Tech Data Sheet: O-06

10
YEAR
LIMITED
WARRANTY

The Shurjoint Model RH-1000 coupling is a high pressure ring joint coupling for use with Sch. 40, Sch. 80 and heavier wall carbon steel pipe.

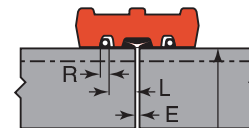
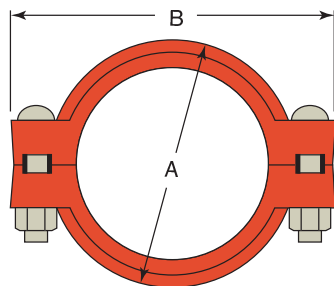
The coupling is comprised of two ductile iron heavy-wall housings, rubber gasket (EPDM or Nitrile) and two heat-treated track bolts and nuts which provide a fully restrained joint and a maximum working pressure of 70 Bar (1,000 psi) depending on the pipe used.

Two steel weld rings are factory supplied with the coupling.



Pressure-Temperature Rating

Nom. Rating	Working Pressure (STD)	Max. Service Temperature
Class 400	70 Bar @38°C 1000 psi @100°F	EPDM: 110°C
		EPDM: 230°F
		Nitrile: 82°C
		Nitrile: 180°F
*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.		



PIPE O.D.

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Pipe Size		Max. Working Pressure Bar psi	Dimensions			Bolt / Nut		Deflection (°)	Pipe-end Preparation			Approx. Weight kg Lbs.
Nominal mm Inches	O.D. mm Inches		A mm Inches	B mm Inches	C mm Inches	No.	Size in		R mm Inches	L mm Inches	E (max) mm Inches	
200	219.1	70	282	372	98	2	1" x 140	0° - 18'	12	25	3.2	18.1
<i>8</i>	<i>8.625</i>	<i>1000</i>	<i>11.10</i>	<i>14.65</i>	<i>3.86</i>				<i>0.47</i>	<i>1</i>	<i>0.13</i>	<i>39.8</i>
250	273.0	70	340	430	108	2	1" x 165	0° - 38'	12	25	3.2	26.0
<i>10</i>	<i>10.750</i>	<i>1000</i>	<i>13.32</i>	<i>16.93</i>	<i>4.25</i>				<i>0.47</i>	<i>1</i>	<i>0.13</i>	<i>57.2</i>
300	323.9	70	415	510	106	2	1" x 165	0° - 32'	12	25	3.2	33.0
<i>12</i>	<i>12.750</i>	<i>1000</i>	<i>16.33</i>	<i>20.07</i>	<i>4.17</i>				<i>0.47</i>	<i>1</i>	<i>0.13</i>	<i>72.6</i>

*Bolt & nuts are UNC threaded.

For information on alternative sizes, contact a GRINNELL Sales Representative.

Refer to the Shurjoint technical data sheet for complete technical information and installation instructions. More information about Shurjoint

Piping Products can be found on page 14 in the General Data section of this book or on www.shurjoint.com.

See page 209 for Ring Joint specifications

For instructions on part numbers, ordering information, and availability, refer to page 15 or contact a GRINNELL Sales Representative.

Shurjoint Model RX-3000 3000 PSI Ring Joint Couplings

Shurjoint Tech Data Sheet: O-05



The Shurjoint Model RX-3000 coupling is a high pressure ring joint coupling for use with Sch. 80, 120 and heavier wall carbon steel pipe.

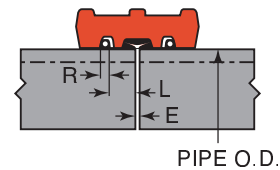
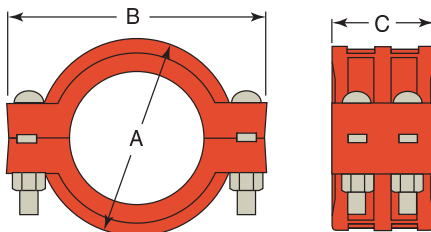
The coupling is comprised of two ductile iron heavy-wall housings, rubber gasket (EPDM or Nitrile) and two or four heat-treated track bolts and nuts which provide a fully restrained joint and a maximum working pressure up to 210 Bar (3,000 psi) depending on the pipe used.

Two steel weld rings are factory supplied with the coupling.

Pressure-Temperature Rating

Nom. Rating	Working Pressure (STD)	Max. Service Temperature
Class 1500	210 Bar @38°C 3000 psi @100°F	EPDM: 110°C
		EPDM: 230°F
		Nitrile: 82°C
		Nitrile: 180°F

*Working pressure is based on API 5L X65 line pipe.
 *Proof test pressure: 1.5 times the working pressure, non-shock cold water.
 *Burst pressure is engineered minimum 2 times the working pressure.



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Pipe Size		Max. Working Pressure Bar psi	Dimensions			Bolt / Nut*		Pipe-end Preparation			Approx. Weight kg Lbs.
Nominal mm Inches	O.D. mm Inches		A mm Inches	B mm Inches	C mm Inches	Qty.	Size in	R mm Inches	L mm Inches	E mm Inches	
200	219.1	210	300	394	148	2	1 1/8 x 130	12.0 - 12.7	31	3	35.87
8	8.625	3000	11.81	15.51	5.83			0.472 - 0.500	1.22	1/8	78.92
250	273.0	210	380	481	152	4	1 1/4 x 165	15.9 - 16.0	31	3	52.78
10	10.748	3000	14.96	18.93	5.98			0.625 - 0.629	1.22	1/8	116.36
300	323.9	210	470	572	173	4	1 1/2" x 160	15.9 - 16.0	31	3	96.24
12	12.752	3000	18.5	22.48	6.81			0.625 - 0.629	1.22	1/8	212.27

*Bolt & nuts are UNC threaded. @ 12.7mm (1/2") and 15.9mm (5/8") steel rings are also available upon request.

Refer to the Shurjoint technical data sheet for complete technical information and installation instructions. More information about Shurjoint Piping Products can be found on page 14 in the General Data section of this book or on www.shurjoint.com.

See page 209 for Ring Joint specifications

For information on alternative sizes, contact a GRINNELL Sales Representative.

For instructions on part numbers, ordering information, and availability, refer to page 15 or contact a GRINNELL Sales Representative.

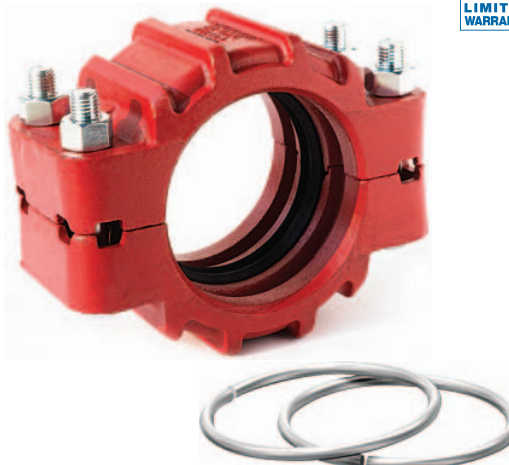
Shurjoint Model RX-3770 3770 PSI Ring Joint Couplings

Shurjoint Tech Data Sheet: O-07

10
YEAR
LIMITED
WARRANTY

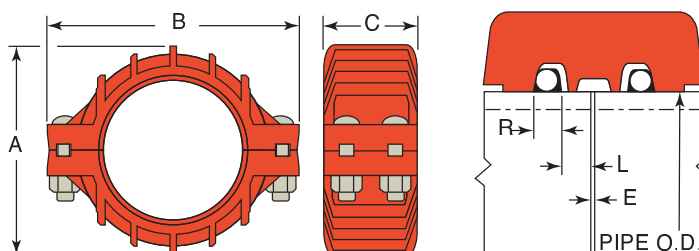
The Shurjoint Model RX-3770 Ring Joint Coupling is designed to provide a fully restrained joint for use with extra-strong carbon steel pipe including API 5L Grade X65 line pipe.

The coupling is comprised of two ductile iron heavy-wall housing segments, rubber gasket (EPDM) and four heat-treated track bolts and nuts. Two steel weld rings are factory supplied with a coupling.



Pressure-Temperature Rating

Nom. Rating	Working Pressure	Max. Service Temperature
Class 2000	260 Bar @38°C 3770 psi @100°F	EPDM: 110°C
		EPDM: 230°F
		Nitrile: 82°C
		Nitrile: 180°F
*Working pressure is based on API 5L X65 line pipe. *Proof test pressure: 1.5 times the working pressure, non-shock cold water. *Burst pressure is engineered minimum 2 times the working pressure.		



Nominal Size mm Inches	Pipe OD mm Inches	Max. Working Pressure Bar psi	Dimensions			Bolt / Nut*		Pipe-end Preparation			Approx. Weight kg Lbs.
			A mm Inches	B mm Inches	C mm Inches	No.	Size in	R mm Inches	L mm Inches	E mm Inches	
150 6	168.3 6.625	260 3770	260 10.24	321 12.64	149 5.87	4	7/8" x 165	12 0.472	31 1.22	5 0.20	27.7 61.2
200 8	219.1 8.625	260 3770	329 12.95	414 16.30	175 6.89	4	1 1/4" x 165	16 0.625	38 1.50	5 0.20	49.9 110.0
250 10	273.0 10.750	260 3770	404 15.90	505 19.88	188 7.40	4	1 1/2" x 175	19 0.750	38 1.50	5 0.20	79.2 174.5
300 12	323.9 12.750	260 3770	482 19.0	587 23.10	219 8.63	4	1 1/2" x 175	22 0.875	38 1.50	6 0.24	112.3 247.1

*Bolt & nuts are UNC threaded.

Refer to the Shurjoint technical data sheet for complete technical information and installation instructions. More information about Shurjoint Piping Products can be found on page 14 in the General Data section of this book or on www.shurjoint.com.

See page 209 for Ring Joint specifications

For information on alternative sizes, contact a GRINNELL Sales Representative.

For instructions on part numbers, ordering information, and availability, refer to page 15 or contact a GRINNELL Sales Representative.

Ring
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RING JOINT FITTINGS

Shurjoint offers a full range of ring joint fittings for use with Model R-88 ring joint couplings.

- 200 – 400mm (8" - 16") Models RJ-10, RJ-11 & RJ-60 and RJ-20 are available in cast ductile iron to ASTM A 536 Gr. 65-45-12.
- Larger sizes are made of carbon steel standard weight pipe, ASTM A 53 Gr. B or equivalent, or fabricated from wrought carbon steel of the equivalent properties.
- Other configurations are also available upon request. contact Shurjoint for details.

FITTING MATERIAL SPECIFICATIONS

Fitting body:

- Ductile Iron to ASTM A 536 Gr. 65-45-12 and or to ASTM A 395, Gr. 65-45-15. min. tensile strength 4481 Bar (65,000 psi).
- Carbon steel Sch. 40 pipe to ASTM A 53 or 9.5 mm (0.375") wall pipe of ASTM A 234 Gr. WPB

Surface Finish:

- Standard painted finishes in orange or RAL 3000 red.
- Hot dip zinc galvanised (Option).
- Epoxy Coatings in RAL 3000 red or other colours (Option)

Rings:

- Carbon Steel.
- Stainless steel: 304, 316, 316L.

General Notes:

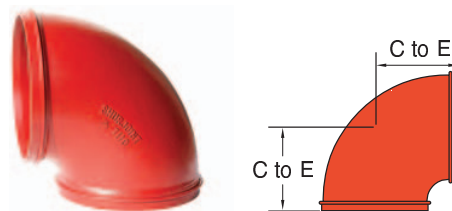
- Maximum Working Pressure (CWP) conforms to ratings of installed coupling.
- Field Joint Test: For one time only the system may be tested hydrostatically at 1 ½ times the maximum working pressure listed (AWWA C606 5.2.3).
- Warning: Piping systems must always be depressurized and drained before attempting disassembly and or removal of any components.
- 10 Year Limited Warranty is not applicable to scalding or hot water services or other high temperature applications. Visit Shurjoint website for full warranty.
- Shurjoint reserves the right to change specifications, designs and or standard equipment without notice and without incurring any obligation.

* Shurjoint product specifications can be found at www.shurjoint.com

Shurjoint Figure RJ-10 90° Ring Joint Elbows

Shurjoint Tech Data Sheet: O-02

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YEAR
LIMITED
WARRANTY



Pipe Size		C - E mm Inches	Approx. Weight kg Lbs.
Nominal mm Inches	O.D. mm Inches		
200	219.1	197	13.0
8	8.625	7.75	28.6
250	273.0	229	25.0
10	10.750	9.00	55.0
300	323.9	254	35.0
12	12.750	10.00	77.0
350	355.6	280	37.0
14	14.000	11.00	81.4
400	406.4	305	45.0
16	16.000	12.00	99.0
450	457.2	686	95.0
18	18.000	27.0	209.0
500	508.0	762	138.0
20	20.000	30.0	203.6
600	609.6	914	220.0
24	24.000	36.0	485.0
650	660.4	991	237.0
26	26.000	39.00	521.0
700	711.2	1067	275.0
28	28.000	42.00	605.0
750	762.0	1143	316.0
30	30.000	45.00	695.0
800	812.8	1219	360.0
32	32.000	48.00	792.0
850	863.4	1295	407.0
34	34.000	51.00	895.0
900	914.4	1372	457.0
36	36.000	54.00	1005.0
1000	1016.0	1524	564.0
40	40.000	60.00	1241.0
1050	1066.8	1600	622.0
42	42.000	63.00	1368.0
1100	1117.6	1676	683.0
44	44.000	66.00	1503.0
1200	1219.2	1829	814.0
48	48.000	72.00	1790.0

• C-E of R-10 18" and larger sizes conform to ANSI B16.9. All other sizes are to manufacturer's standard.

Refer to the Shurjoint technical data sheet for complete technical information and installation instructions. More information about Shurjoint Piping Products can be found on page 14 in the General Data section of this book or on www.shurjoint.com.

See left column for Ring Joint specifications

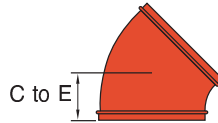
For information on alternative sizes, contact a GRINNELL Sales Representative.

For instructions on part numbers, ordering information, and availability, refer to page 15 or contact a GRINNELL Sales Representative.

Shurjoint Figure RJ-11 45° Ring Joint Elbows

Shurjoint Tech Data Sheet: O-02

10
YEAR
LIMITED
WARRANTY



Pipe Size		C - E mm Inches	Approx. Weight kg Lbs.
Nominal mm Inches	O.D. mm Inches		
200	219.1	108	9.5
8	8.625	4.25	20.9
250	273.0	121	18.0
10	10.750	4.75	39.6
300	323.9	133	23.0
12	12.750	5.25	50.6
350	355.6	152	24.0
14	14.000	6.00	52.8
400	406.4	184	46.0
16	16.000	7.25	101.2
450	457.2	286	48.0
18	18.000	11.25	105.6
500	508.0	318	50.0
20	20.000	12.50	110.0
600	609.6	381	80.0
24	24.000	15.00	176.0
650	660.4	406	119.0
26	26.000	16.00	262.0
700	711.2	438	138.0
28	28.000	17.25	304.0
750	76.20	480	158.0
30	30.000	18.50	348.0
800	812.8	502	180.0
32	32.000	19.75	396.0
850	863.4	533	204.0
34	34.000	21.00	449.0
900	914.4	565	229.0
36	36.000	22.25	504.0
1000	1016.0	632	282.0
40	40.000	24.88	620.0
1050	1066.8	660	311.0
42	42.000	26.00	684.0
1100	1117.6	696	342.0
44	44.000	27.39	752.0
1200	1219.2	759	407.0
48	48.000	29.88	895.0

• C-E of R-11 450mm (18") and larger sizes conform to ANSI B16.9. All other sizes are to manufacturer's standard.

Refer to the Shurjoint technical data sheet for complete technical information and installation instructions. More information about Shurjoint Piping Products can be found on page 14 in the General Data section of this book or on www.shurjoint.com.

See page 216 for Ring Joint specifications

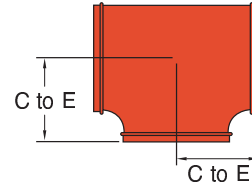
For information on alternative sizes, contact a GRINNELL Sales Representative.

For instructions on part numbers, ordering information, and availability, refer to page 15 or contact a GRINNELL Sales Representative.

Shurjoint Figure RJ-20 Ring Joint Tee

Shurjoint Tech Data Sheet: O-02

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YEAR
LIMITED
WARRANTY



Pipe Size		C - E mm Inches	Approx. Weight kg Lbs.
Nominal mm Inches	O.D. mm Inches		
200	219.1	197	21.0
8	8.625	7.75	46.2
250	273.0	229	33.0
10	10.750	9.00	72.6
300	323.9	254	47.0
12	12.750	10.00	103.4
350	355.6	280	54.0
14	14.000	11.00	118.8
400	406.4	305	70.0
16	16.000	12.00	154.0
450	457.2	394	122.0
18	18.000	15.50	268.0
500	508.0	438	153.0
20	20.000	17.25	337.0
600	609.6	508	212.0
24	24.000	20.00	466.0
650	660.4	572	348.0
26	26.000	22.50	766.0
700	711.2	597	392.0
28	28.000	23.50	862.0
750	76.20	635	451.0
30	30.000	25.00	992.0
800	812.8	673	516.0
32	32.000	26.50	1135.0
850	863.4	711	584.0
34	34.000	28.00	1285.0
900	914.4	762	657.0
36	36.000	30.00	1445.0
1000	1016.0	838	814.0
40	40.000	33.00	1790.0
1050	1066.8	889	837.0
42	42.000	35.00	1841.0
1100	1117.6	914	943.0
44	44.000	36.00	2075.0
1200	1219.2	1016	1131.0
48	48.000	40.00	2488.0

• C-E of R-10 and R-11 450mm (18") and larger sizes and E-E of R-60 650mm (26") and larger sizes conform to ANSI B16.9. All other sizes are to manufacturer's standard.

Refer to the Shurjoint technical data sheet for complete technical information and installation instructions. More information about Shurjoint Piping Products can be found on page 14 in the General Data section of this book or on www.shurjoint.com.

See page 216 for Ring Joint specifications

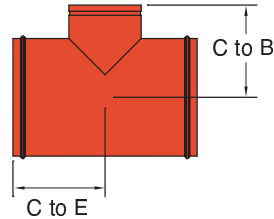
For information on alternative sizes, contact a GRINNELL Sales Representative.

For instructions on part numbers, ordering information, and availability, refer to page 15 or contact a GRINNELL Sales Representative.

Ring
Joint
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Shurjoint Figure RJ-21 Reducing Tees

Shurjoint Tech Data Sheet: O-02



Pipe Size		C - E mm Inches	C - B mm Inches	Approx. Weight kg Lbs.
Nominal mm Inches	O.D. mm Inches			
350 x 300	355.6 x 323.9	279	270	66.0
14 x 12	14.000 x 12.750	11.00	10.62	145.0
400 x 300	406.4 x 323.9	305	295	78.0
16 x 12	16.000 x 12.750	12.00	11.62	172.0
400 x 350	406.4 x 355.6	305	305	80.0
16 x 14	16.000 x 14.000	12.00	12.00	176.0
450 x 300	457.2 x 323.9	343	321	112.0
18 x 12	18.000 x 12.750	13.50	12.62	246.0
450 x 350	457.2 x 355.6	343	330	115.0
18 x 14	18.000 x 14.000	13.50	13.00	253.0
450 x 400	457.2 x 406.4	343	330	120.0
18 x 16	18.000 x 16.000	13.50	13.00	264.0
500 x 300	508.0 x 323.9	381	346	135.0
20 x 12	20.000 x 12.750	15.00	13.62	297.0
500 x 350	508.0 x 355.6	381	356	138.0
20 x 14	20.000 x 14.000	15.00	14.00	304.0
500 x 400	508.0 x 406.4	381	356	144.0
20 x 16	20.000 x 16.000	15.00	14.00	317.0
500 x 450	508.0 x 457.2	381	368	149.0
20 x 18	20.000 x 18.000	15.00	14.50	328.0
600 x 300	609.6 x 323.9	432	397	180.0
24 x 12	24.000 x 12.750	17.00	15.62	396.0
600 x 350	609.6 x 355.6	432	406	185.0
24 x 14	24.000 x 14.000	17.00	16.00	407.0
600 x 400	609.6 x 406.4	432	406	190.0
24 x 16	24.000 x 16.000	17.00	16.00	418.0
600 x 450	609.6 x 457.2	432	419	197.0
24 x 18	24.000 x 18.000	17.00	16.50	433.0
600 x 500	609.6 x 508.0	432	432	202.0
24 x 20	24.000 x 20.000	17.00	17.00	444.0

C-E: Mfr's standard. E-E marked (*): Mfr's standard (made of ductile iron). All other E-E: ANSI B16.9.

Refer to the Shurjoint technical data sheet for complete technical information and installation instructions. More information about Shurjoint Piping Products can be found on page 14 in the General Data section of this book or on www.shurjoint.com.

See page 216 for Ring Joint specifications

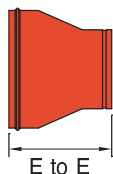
For information on alternative sizes, contact a GRINNELL Sales Representative.

For instructions on part numbers, ordering information, and availability, refer to page 15 or contact a GRINNELL Sales Representative.

Shurjoint Figure RJ-50 Concentric Reducer

Shurjoint Tech Data Sheet: O-02

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YEAR
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WARRANTY



Pipe Size		E - E mm Inches	Approx. Weight kg Lbs.
Nominal mm Inches	O.D. mm Inches		
350 x 300	355.6 x 323.9	203*	23.0
14 x 12	14.000 x 12.750	8.00	51.0
400 x 300	406.4 x 323.9	229*	29.0
16 x 12	16.000 x 12.750	9.00	64.0
400 x 350	406.4 x 355.6	229*	29.0
16 x 14	16.000 x 14.000	9.00	64.0
450 x 300	457.2 x 323.9	241*	33.0
18 x 12	18.000 x 12.750	9.50	72.6
450 x 350	457.2 x 355.6	381	36.0
18 x 14	18.000 x 14.000	15.00	79.0
450 x 400	457.2 x 406.4	381	36.0
18 x 16	18.000 x 16.000	15.00	79.0
500 x 300	508.0 x 323.9	254*	43.0
20 x 12	20.000 x 12.750	10.00	95.0
500 x 350	508.0 x 355.6	508	45.0
20 x 14	20.000 x 14.000	20.0	99.0
500 x 400	508.0 x 406.4	508	46.0
20 x 16	20.000 x 16.000	20.0	101.0
500 x 450	508.0 x 457.2	508	58.0
20 x 18	20.000 x 18.000	20.00	128.0
600 x 300	609.6 x 323.9	305*	70.0
24 x 12	24.000 x 12.750	12.00	154.0
600 x 350	609.6 x 355.6	508	70.0
24 x 14	24.000 x 14.000	20.00	154.0
600 x 400	609.6 x 406.4	305*	70.0
24 x 16	24.000 x 16.000	12.00	154.0
600 x 450	609.6 x 457.2	508	70.0
24 x 18	24.000 x 18.000	20.00	154.0
600 x 500	609.6 x 508.0	305*	71.0
24 x 20	24.000 x 20.000	12.00	156.0

C-E: Mfr's standard. E-E marked (*): Mfr's standard (made of ductile iron). All other E-E: ANSI B16.9.

Refer to the Shurjoint technical data sheet for complete technical information and installation instructions. More information about Shurjoint Piping Products can be found on page 14 in the General Data section of this book or on www.shurjoint.com.

See page 216 for Ring Joint specifications

For information on alternative sizes, contact a GRINNELL Sales Representative.

For instructions on part numbers, ordering information, and availability, refer to page 15 or contact a GRINNELL Sales Representative.

Shurjoint Figure RJ-51 Eccentric Reducer

Shurjoint Tech Data Sheet: O-02

10
YEAR
LIMITED
WARRANTY



Pipe Size		E - E mm Inches	Approx. Weight kg Lbs.
Nominal mm Inches	O.D. mm Inches		
350 x 300	355.6 x 323.9	330	23.0
14 x 12	14.000 x 12.750	13.00	51.0
400 x 300	406.4 x 323.9	229*	29.0
16 x 12	16.000 x 12.750	9.00	64.0
400 x 350	406.4 x 355.6	229*	29.0
16 x 14	16.000 x 14.000	9.00	64.0
450 x 300	457.2 x 323.9	381	35.0
18 x 12	18.000 x 12.750	15.00	78.0
450 x 350	457.2 x 355.6	381	36.0
18 x 14	18.000 x 14.000	15.00	79.0
450 x 400	457.2 x 406.4	381	36.0
18 x 16	18.000 x 16.000	15.00	79.0
500 x 300	508.0 x 323.9	508	43.0
20 x 12	20.000 x 12.750	20.00	95.0
500 x 350	508.0 x 355.6	508	45.0
20 x 14	20.000 x 14.000	20.0	99.0
500 x 400	508.0 x 406.4	508	46.0
20 x 16	20.000 x 16.000	20.0	101.0
500 x 450	508.0 x 457.2	508	58.0
20 x 18	20.000 x 18.000	20.00	128.0
600 x 300	609.6 x 323.9	508	70.0
24 x 12	24.000 x 12.750	20.00	154.0
600 x 350	609.6 x 355.6	508	70.0
24 x 14	24.000 x 14.000	20.00	154.0
600 x 400	609.6 x 406.4	508	70.0
24 x 16	24.000 x 16.000	20.00	154.0
600 x 450	609.6 x 457.2	508	70.0
24 x 18	24.000 x 18.000	20.00	154.0
600 x 500	609.6 x 508.0	508	71.0
24 x 20	24.000 x 20.000	20.00	156.0

C-E: Mfr's standard. E-E marked (*): Mfr's standard (made of ductile iron). All other E-E: ANSI B16.9.

Refer to the Shurjoint technical data sheet for complete technical information and installation instructions. More information about Shurjoint Piping Products can be found on page 14 in the General Data section of this book or on www.shurjoint.com.

See page 216 for Ring Joint specifications

For information on alternative sizes, contact a GRINNELL Sales Representative.

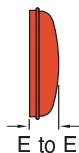
For instructions on part numbers, ordering information, and availability, refer to page 15 or contact a GRINNELL Sales Representative.

Ring
Joint
Systems

Shurjoint Figure RJ-60 Ring Joint Cap

Shurjoint Tech Data Sheet: O-02

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YEAR
LIMITED
WARRANTY



Pipe Size		E - E mm Inches	Approx. Weight kg Lbs.
Nominal mm Inches	O.D. mm Inches		
200	219.1	76	5.5
8	8.625	3.00	12.1
250	273.0	76	6.0
10	10.750	3.00	13.2
300	323.9	76	8.0
12	12.750	3.00	17.6
350	355.6	102	12.0
14	14.000	4.00	26.4
400	406.4	102	15.0
16	16.000	4.00	33.0
450	457.2	127	21.0
18	18.000	5.00	46.2
500	508.0	152	26.0
20	20.000	6.00	57.2
600	609.6	152	35.0
24	24.000	6.00	77.0
650	660.4	267	50.0
26	26.000	10.50	110.0
700	711.2	267	56.0
28	28.000	10.50	123.0
750	762.0	267	62.0
30	30.000	10.50	136.0
800	812.8	267	113.0
32	32.000	10.50	248.6
850	863.4	267	75.0
34	34.000	10.50	165.0
900	914.4	267	152.0
36	36.000	10.50	334.4
1000	1016.0	305	102.0
40	40.000	12.00	224.0
1050	1066.8	305	110.0
42	42.000	12.00	242.0
1100	1117.6	343	126.0
44	44.000	13.50	277.0
1200	1219.2	343	143.0
48	48.000	13.50	315.0

• C-E of R-10 and R-11 18" and larger sizes and E-E of R-60 26" and larger sizes conform to ANSI B16.9. All other sizes are to manufacturer's standard.

Refer to the Shurjoint technical data sheet for complete technical information and installation instructions. More information about Shurjoint Piping Products can be found on page 14 in the General Data section of this book or on www.shurjoint.com.

See page 216 for Ring Joint specifications

For information on alternative sizes, contact a GRINNELL Sales Representative.

For instructions on part numbers, ordering information, and availability, refer to page 15 or contact a GRINNELL Sales Representative.

Shurjoint Figure RJ-70 Flange Adapter

Shurjoint Tech Data Sheet: O-02

10
YEAR
LIMITED
WARRANTY



Pipe Size		E - E mm Inches	Approx. Weight kg Lbs.
Nominal mm Inches	O.D. mm Inches		
200	219.1	152	20.4
8	8.625	6	44.9
250	273.0	203	30.5
10	10.750	8	67.1
300	323.9	203	44.6
12	12.750	8	98.1
350	355.6	203	54.0
14	14.000	8.00	118.8
400	406.4	203	66.8
16	16.000	8.00	147.0
450	457.2	203	65.0
18	18.000	8.00	143.0
500	508.0	203	77.0
20	20.000	8.00	169.4
600	609.6	203	130.4
24	24.000	8.00	286.9
1200	1219.2	203	364.0
48	48.000	8.00	800.8

E-E: Mfr's standard.

Refer to the Shurjoint technical data sheet for complete technical information and installation instructions. More information about Shurjoint Piping Products can be found on page 14 in the General Data section of this book or on www.shurjoint.com.

See Flange Drilling Specifications on page 267.

See page 216 for Ring Joint specifications

For information on alternative sizes, contact a GRINNELL Sales Representative.

For instructions on part numbers, ordering information, and availability, refer to page 15 or contact a GRINNELL Sales Representative.