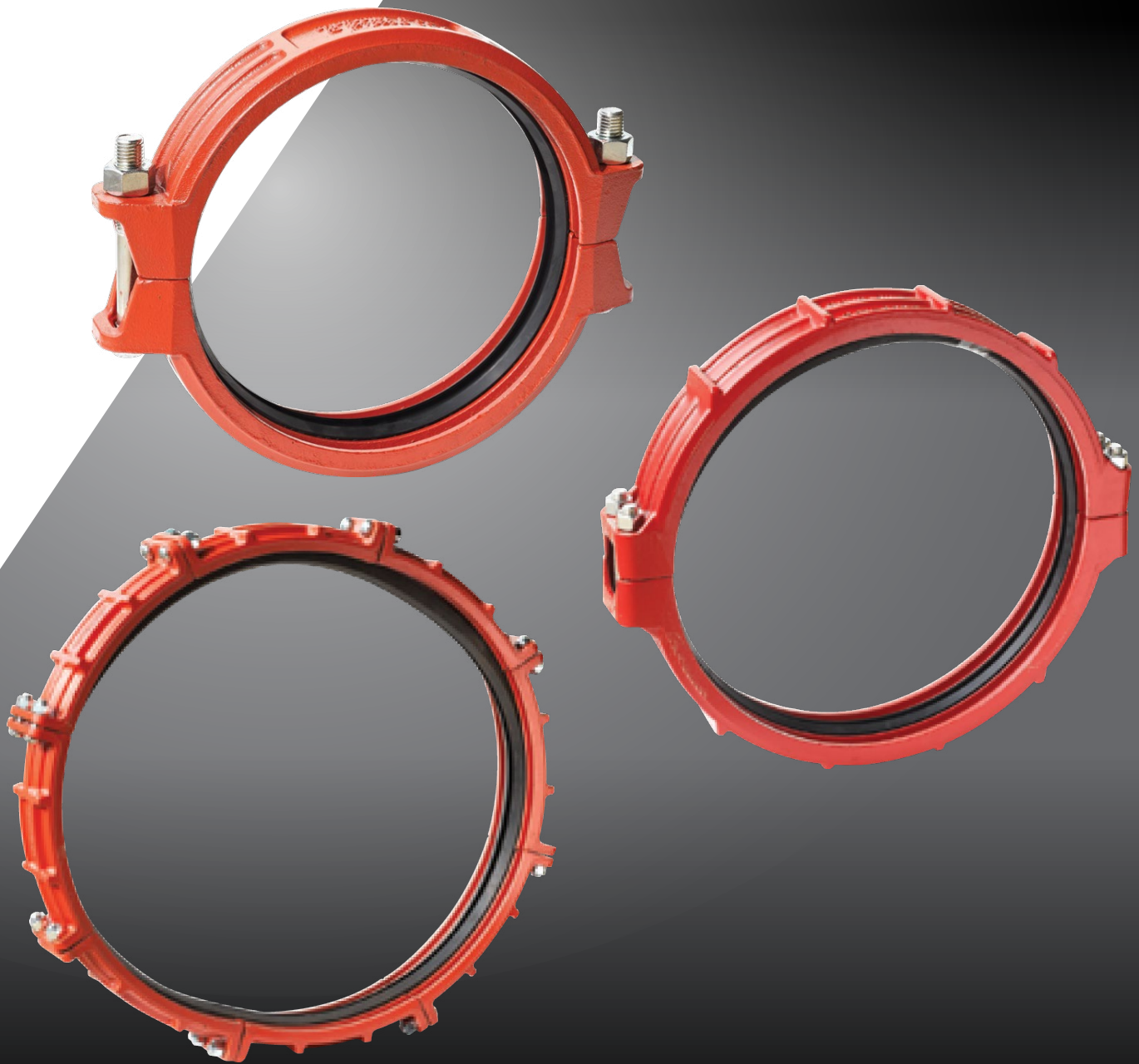




integrated
piping systems

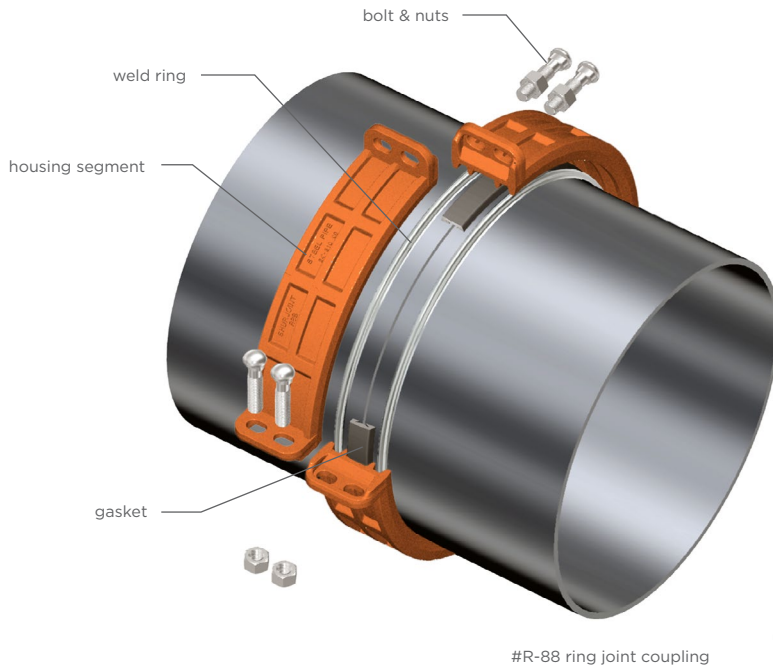


SHURJOINT® ring joint piping system



Shurjoint ring joint piping system

The Shurjoint ring joint piping system is a non-grooved mechanical pipe joining method and an excellent alternative where pipe is difficult to groove or when grooving, flanges or welding is not the preferred method. The ring joint coupling can be installed 3 - 4 times faster than a comparable welded or flanged joint.



included in applications

- water & waste water treatment plants
- mining & tunnel boring
- pulp & paper
- hydroelectric plants
- co-gen electric plants
- food & beverage
- compressed air
- HVAC



factory supplied
weld rings

The processing of a roll groove on pipe becomes more difficult as the pipe O.D. and wall thickness increases. Roll grooving pipe larger than 14" (350mm) requires proper tools and equipment. Pipe having a wall thickness greater than 0.375" (9.5mm) may not be practical to roll groove.

The Shurjoint ring joint coupling is supplied complete with a pair of factory supplied weld rings. For installation, weld a 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.

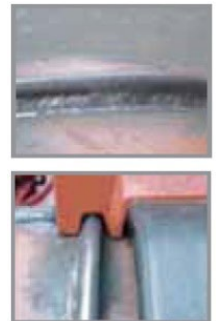
The Shurjoint ring joint coupling is considered a shouldered coupling, with the factory-supplied rings serving as the joint shoulders. The performance standards meet and or exceed the requirement of ASTM F1476 and AWWA C606. The factory supplied weld rings offer a much more economical and installation friendly alternative to that of traditional shoulder rings, including Type A, B, C, D, E and G rings.

The Shurjoint ring joint coupling provides a much more secure joint than that of a comparable standard roll or cutgrooved joint, while maintaining full bore flow and full pipe-wall thickness, which is often required in abrasive media applications. Each joint also serves as a union, making for easy, assembly, disassembly, service and system expansion. Custom high pressure couplings with working pressures to 3770 psi (260 bar) are also available.

Ring joint couplings can also be used on stainless steel pipe and are available with optional compatible grade stainless steel rings. Contact Shurjoint for details and availability.



hydrostatic testing - 72" R-88 coupling



material specifications

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 para. 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 = 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 600°F or below = 0.4)
 A = Additional thickness (inch) (A = 0)

maximum internal service pressure of carbon steel pipe, ASTM A53 Gr. B

nominal size in / mm	XS 0.5"	STD 0.375"	LW 0.25" / 0.312"
8 / 200	1586	1006	777
10 / 250	1262	913	621
12 / 300	1058	788	522
14 / 350	962	717	475
16 / 400	839	625	415
18 / 450	744	555	368
20 / 500	668	499	331
24 / 600	555	415	275
26 / 650	512	382	318
28 / 700	475	355	295
30 / 750	443	331	275
32 / 800	415	310	258
36 / 900	368	275	229
38 / 950	349	261	217
40 / 1000	331	248	206
42 / 1050	315	236	187
44 / 1100	301	225	
48 / 1200	275	206	
52 / 1300	254	190	
54 / 1350	245	183	
56 / 1400	236	177	
60 / 1500	220	165	
66 / 1650	200	150	
68 / 1700	194	145	
72 / 1800	183	137	
84 / 2100	157	118	
96 / 2400	137	103	

except: "8" : 0.0322"

^ 8" - 24" : 0.25" , 26" - 42" : 0.312"

housing

Ductile Iron: Per ASTM A536 Gr. 65-45-12, and/or ASTM A395 Gr. 65-45-15 minimum tensile strength 65,000 psi or 448 MPa.

Paint: Orange or RAL3000 red.

Optional: Hot-dip galvanized, epoxy coating or polyamid 11 (Nylon) coating is also available upon request.

hardware

Bolts: Carbon steel heat-treated track bolts to ASTM A183 Gr. 2.

Nuts: Carbon steel heavy duty nuts to ASTM A563. Both bolts and nuts are UNC threaded and electro zinc plated.

weld rings

Factory supplied end rings are made of carbon steel per SAE J403 (ANSI) 1020.

Optional: Stainless steel rings: Type 304, 316 or 316L available upon request.

gasket

always specify the desired compound (grade) at time of order

compound	EPDM (grade E)	nitrile (grade t)
color code	green stripe	orange stripe
temperature range	-29°F to +230°F (-34°C to +110°C)	-20°F to +180°F (-29°C to +82°C)
applications	recommended for cold and hot water services, water with chlorine, deionized water, seawater, waste water, dilute acids, oil-free air and many other chemicals caution: not recommended for petroleum oils, mineral oils, solvents and aromatic hydrocarbons	recommended for petroleum oils, mineral oils, vegetable oils, aromatic hydrocarbons, many acids and water up to +150°F (+65°C)

note: other gasket options are also available

angular deflection

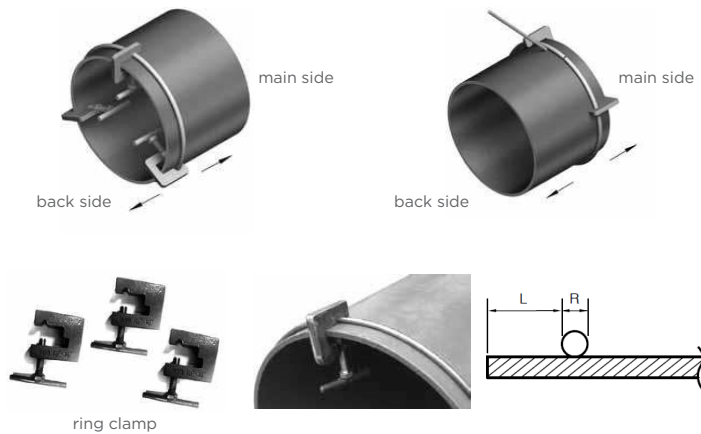
The R-88 coupling is designed to provide a restrained joint with a controlled range of angular deflection (flexibility). The degree of deflection is influenced by several factors including; pipe, fitting and component dimensions, pipe end squareness, ring location, weld size and system pressure. When designing a piping system these considerations should be factored into the system. When designing a system requiring increased deflection (flexibility) please contact Shurjoint for customized solutions.

As with all piping systems proper support, anchoring and bracing are essential. Industry standard requirements such as B31.1 (Power Piping), B31.9 (Building Services) and B31.11 (Slurry Transportation), etc. should be followed for your specific type of pipeline Compound EPDM (Grade E) Nitrile (Grade T) system application.

installation guidelines

1. mounting factory supplied weld rings

Mount the factory supplied weld ring on the pipe end using the Shurjoint ring clamp, C-clamp or other device to secure and position the ring in place. Prior to welding make sure that the "L" dimension (the distance between the pipe end and the ring) is as specified for the coupling / pipe size.

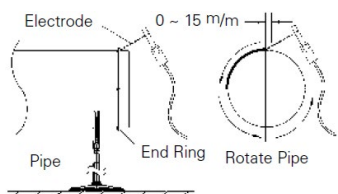


2. step one welding

First weld the butt ends of the ring together. Next tack weld the ring to the pipe at several locations. Remove the ring clamps or other positioning devices.

welding conditions

- Method: SMAW (Shielded metal arc welding)*
- Electrode: Flux-cored electrode $\frac{3}{32}$ " (2.4mm) to $\frac{1}{8}$ " (3.2mm)
- Welding speed: 12" (300mm) to 16" (400mm) per minute
- Current: 110A – 160A Rotate pipe so that you can keep your electrode holder at the same position.



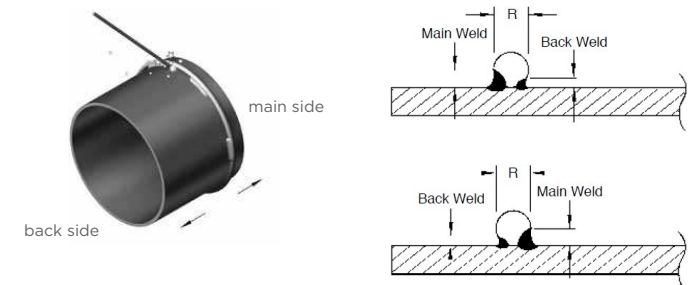
3-1. step two welding

Determine the type of weld required, full or partial, depending on the intended system working pressure. Refer to page 11 for working pressures and full and partial welding information. Weld the ring to the pipe using the proper weld(s) for the intended service.

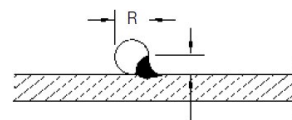
Full & Partial Ring Welding: The Shurjoint Model R-88 Ring Joint Coupling is supplied with factory weld rings and is designed for a variety of service and pressure applications. For lower pressure applications weld rings need not be fully welded around the entire circumference of the pipe. The table shows the minimum required weld length in inches or millimeters and corresponding working pressures.

Working pressures are based on the use of applicable pipe wall thickness for the service pressure intended. Full welding means both sides of the weld ring are fully welded around the circumference of the pipe. One side shall be referred to as the "Main Weld" and the other side as "Back Weld". Either side of the weld ring can receive the Main Weld.

Full welding means both sides of the weld ring are fully welded around the circumference of the pipe. One side shall be referred to as the "Main Weld" and the other side as "Back Weld". Either side of the weld ring can receive the Main Weld.

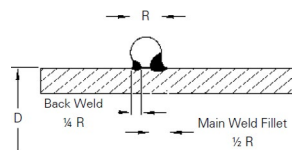


3-2. partial weld



Partial ring welding will provide sufficient strength for lower pressure services. In case of partial ring welding, the weld shall be processed on the backside (away from the pipe end) of the ring.

An equal alternating or zigzag weld is acceptable. Welds should be equal length and evenly spaced. Back welding provides additional strength to a partial weld.



The fillet size of the Main Weld should measure a minimum of one half of the end ring size. The Back Weld should measure a minimum of one half of the Main Weld size.

standard end ring & fillet size

end ring size	main weld size	back weld size
$\frac{1}{4}$ " (6.0)	$\frac{1}{8}$ " (3.0)	$\frac{1}{16}$ " (1.5)
$\frac{3}{32}$ " (7.0)	$\frac{3}{64}$ " (3.5)	$\frac{1}{128}$ " (1.75)
$\frac{5}{16}$ " (8.0)	$\frac{5}{32}$ " (4.0)	$\frac{3}{64}$ " (2)
$\frac{3}{8}$ " (9.5)	$\frac{3}{16}$ " (4.8)	$\frac{3}{32}$ " (2.4)
$\frac{1}{2}$ " (12.0)	$\frac{1}{4}$ " (6.0)	$\frac{1}{8}$ " (3)
$\frac{5}{8}$ " (16.0)	$\frac{5}{16}$ " (8.0)	$\frac{5}{32}$ " (4)
$\frac{3}{4}$ " (19.0)	$\frac{3}{8}$ " (9.5)	$\frac{3}{16}$ " (4.75)

working pressure / full & partial ring welding

Minimum required weld length in inches (mm) and corresponding working pressures in psi (bar) for applicable steel pipe*.

nominal size in / mm	weld length - in / mm			
	< 125 psi < 9 bar	< 175 psi < 12 bar	< 300 psi < 20 bar	350 psi < 24 bar <
8 / 200	10 / 254	14 / 356	20 / 208	full
10 / 250	12 / 305	20 / 508	30 / 762	full
12 / 300	16 / 406	24 / 610	36 / 914	full
14 / 350	18 / 457	28 / 711	40 / 1016	full
16 / 400	22 / 559	32 / 813	full	full
18 / 450	28 / 711	40 / 1016	full	full
20 / 500	30 / 762	44 / 1118	full	full
24 / 600	40 / 1016	56 / 1422	full	full
26 / 650	42 / 1067	60 / 1524	full	full
28 / 700	44 / 1118	62 / 1575	full	full
30 / 750	48 / 1219	70 / 1776	full	full
32 / 800	50 / 1270	76 / 1930	full	full
34 / 850	54 / 1372	80 / 2030	full	full
36 / 900	68 / 1727	88 / 2235	full	full
38 / 950	76 / 1930	94 / 2388	full	full
40 / 1000	78 / 1981	102 / 2591	full	full
42 / 1050	81 / 2057	106 / 2692	full	full
44 / 1100	90 / 2286	114 / 2896	full	full
48 / 1200	110 / 2794	130 / 3302	full	full
52 / 1300	136 / 3454	full	full	full
54 / 1350	140 / 3556	full	full	full
56 / 1400	150 / 3810	full	full	full
60 / 1500	164 / 4166	full	full	full
66 / 1650	full	full	full	full
68 / 1700	full	full	full	full
72 / 1800	full	full	full	full
84 / 2100	full	full	full	full
96 / 2400	full	full	full	full

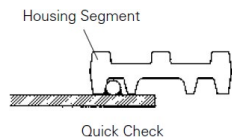
1. Applicable to Model R-88 couplings only.

2. "Full" welding means both sides of the weld ring are fully welded, all others are welded one side only.

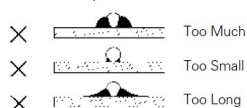
3. * Refer to Max. Internal Service Pressure of Carbon Steel Pipe, ASTM A53 Gr. B table on page 9.

4. quick check guide

After welding use an R-88 housing segment as a gauge to check the weld size by ensuring full and smooth engagement. The housing ring pocket must fully engage the ring without interference from the weld or fillet material.



Fillets unacceptable:



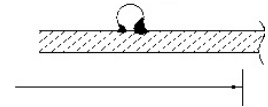
5. weld the second ring

Repeat step 3 and weld the second ring to the other pipe end to be connected.



6. apply a rust prevention coating

After welding apply a thin smooth coat of a rust prevention resin paint coating to the rings, weld areas and pipe ends. A fast drying paint is preferred.



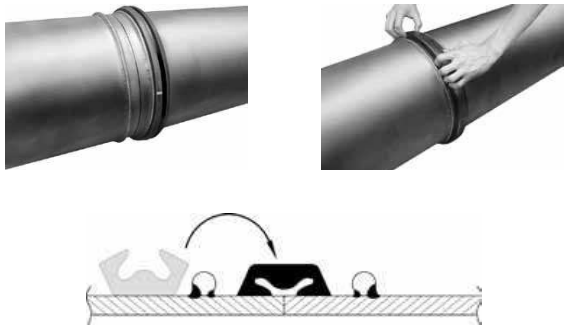
7. lubricate and install gasket

Apply a thin coat of Shurjoint lubricant to the gasket exterior and sealing lips. Install the gasket over one pipe end. Turn the gasket inside out over the ring.



8. align the pipe ends to be connected

Bring the mating pipes together and align the pipe ends. Turn the gasket back over the ring and center the gasket over the pipe ends and between the rings.



9. install the coupling segments

Place the coupling segments over gasket so that the housing engages both rings. For larger size couplings, multiple segments can be loosely pre-assembled to aid in installation.



10. tighten bolts and nuts

Install all bolts and nuts hand tight making sure the oval neck of the bolt fully engages into the housing bolt hole. Tighten nuts alternately and equally until all bolt pads come metal to metal.



recommended torque

bolt size	lbs - ft (nm)
5/8"	100 - 130 (136 - 176)
3/4"	150 - 200 (203 - 271)
7/8"	180 - 220 (244 - 298)
1"	200 - 250 (271 - 339)
1 1/4"	250 - 350 (339 - 475)
1 1/2"	350 - 500 (475 - 678)

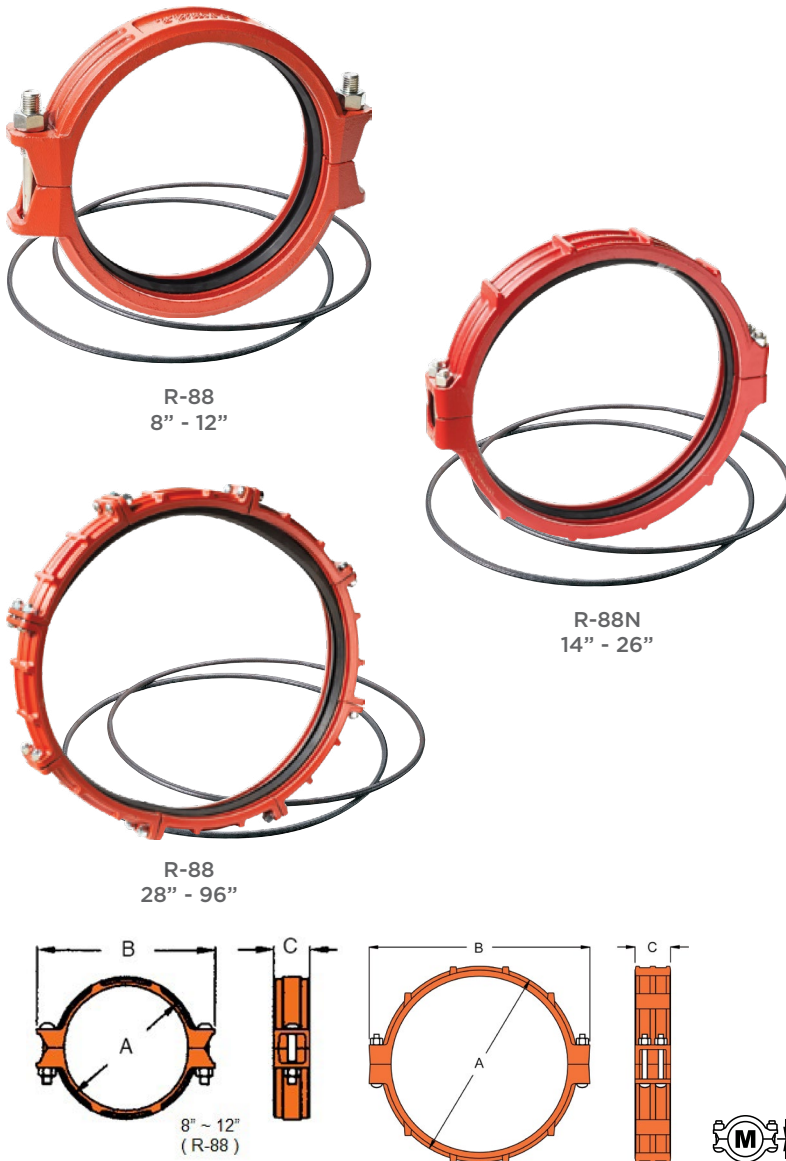
note: For systems subject to vibration or movement the use of Belleville washers or periodic checks to ensure tightness of bolts and nuts are recommended.

warning

Always depressurize and drain the piping system before attempting to install, remove, adjust, or repair any Shurjoint piping component. Failure to comply with these instructions could lead to joint failure or resulting in serious personal injury, product and or property damage.

note: Non-destructive testing is not required by Shurjoint. Proper assembly of the rings, to which this would fall under, is the responsibility of the contractor/installer and is ultimately their decision regarding any standard, testing, or qualification of the welding personnel. Generally accepted piping and welding practices should be followed.

R-88/R-88N ring joint coupling



included in applications

- water & waste water treatment plants
- mining & tunnel boring
- pulp & paper
- hydroelectric plants
- co-gen electric plants
- food & beverage
- compressed air
- HVAC



28" R-88 coupling installed in a chilled water system

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 8" to 96" the R-88 offers ease of use and excellent performance. The Shurjoint Model R-88 Ring Joint Coupling is supplied with a pair of factory weld rings. For installation weld a 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.

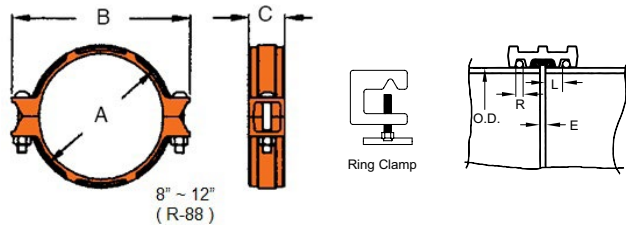
The Shurjoint R-88 Ring Joint Coupling is considered a shouldered coupling with the factory supplied weld rings serving as the joint shoulders. The R-88's performance standards meet and or exceed the requirements of AWWA C606. The factory supplied weld rings offer a much more economical and installation friendly alternative to that of traditional shoulder rings, including 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 Shurjoint for details and availability.

R-88 ring joint coupling

8" - 12"



R-88
8" - 12"



included in applications

- water & waste water treatment plants
- mining & tunnel boring
- pulp & paper
- hydroelectric plants
- co-gen electric plants
- food & beverage
- compressed air
- HVAC

dimensions

R88 (8" - 12")



nominal size	pipe o.d.	rings both sides fully welded**		axial displacement ¹ E	angular movement / deflection		dimensions			bolts		sealing surface L	ring size R	no. of clamps	weight
		max working pressure (cwp)*	max working load (cwp)*		per coupling	per pipe	a	b	c	no.	size				
in	in	psi	lbf	in	(°)	in/ft	in	in	in		in	in	in	no.	lbs
mm	mm	bar	kN	mm		mm/m	mm	mm	mm		mm	mm	mm		kgs
8	8.625	400	23350	0-0.340	2.14	0.45	10.08	13.00	3.11	2	¾ x 4¾	0.91	¼	3	16.8
200	219.1	28.0	105.51	0-8.7		37	256	330	79		M20x120	23	6.0		7.6
10	10.750	400	36280	0-0.340	1.95	0.41	12.29	15.20	3.25	2	¾ x 4¾	0.91	¼	3	22.2
250	273.0	28.0	163.81	0-8.7		34	312	386	83		M20x120	23	6.0		10.1
12	12.750	400	51040	0-0.190	0.82	0.17	14.72	17.90	3.39	2	⅝ x 6½	1.02	⅝	3	30.8
300	323.9	28.0	230.59	0-4.8		14	374	455	86		---	26	8.0		14.0
200 JIS	8.516	400	22770	0-0.340	1.50	0.31	9.96	12.87	3.11	2	---	0.91	¼	3	17.6
	216.3	28.0	102.83	0-8.7		26	253	327	79		M20x120	23	6.0		8.0
250 JIS	10.528	400	34800	0-0.340	1.50	0.31	12.05	14.96	3.25	2	---	0.91	¼	3	22.0
	267.4	28.0	157.16	0-8.7		26	306	380	83		M20x120	23	6.0		10.0
300 JIS	12.539	400	49360	0-0.190	1.50	0.31	14.53	17.72	3.39	2	---	1.02	⅝	3	32.6
	318.5	28.0	222.97	0-4.8		26	369	450	86		M20x120	26	8.0		14.8

Note: Dimensions are subject to change without notice. Other sizes are available on request.

*Working Pressure and End Load are the total from all internal and external loads based on the applicable pipe wall thickness.

**Working Pressure is based on rings both sides fully welded standard wall carbon steel pipe.

1 Allowable Axial Displacement and Angular Movement (Deflection) figures shown are the maximum nominal range of movement at each R-88 coupling joint when rings are welded in the standard position. For design and installation purposes these figures should be reduced by 25%.

2 10mm shoulder rings are acceptable. The number of ring clamps listed is the minimum required to correctly position the weld ring around the circumference of the pipe end.

***Some pipe standards allow for increased variation in OD as size increases. Shurjoint recommends a tolerance limit of +/- 1.6mm (0.063") for sizes larger than 26". Buyer should consult with the pipe manufacturer to limit this variation on what is acceptable, as this may affect performance.

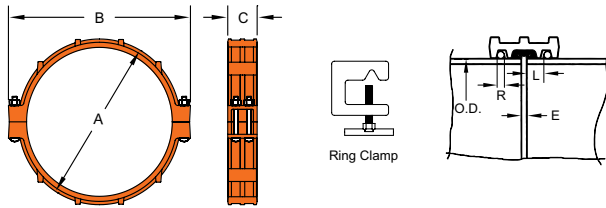
R-88N ring joint coupling

14" - 26"

R-88N
14" - 26"

included in applications

- water & waste water treatment plants
- mining & tunnel boring
- pulp & paper
- hydroelectric plants
- co-gen electric plants
- food & beverage
- compressed air
- HVAC



dimensions

R88N (14" - 26")



nominal size	pipe o.d.	rings both sides fully welded**		axial displacement ¹ E	angular movement / deflection		dimensions			bolts		sealing surface L	ring size R	no. of clamps	weight
		max working pressure (cwp)*	max working load (cwp)*		per coupling	per pipe	a	b	c	no.	size				
14	14.000	400	61540	0-0.250	1.20	0.25	15.93	19.40	3.65	2	7/8 x 5 1/2	1.02	5/16	4	31.5
350	355.6	28.0	277.94	0-6.4		21	405	493	93		---	26	8.0		14.3
16	16.000	400	80380	0-0.250	0.90	0.19	17.92	21.52	3.65	2	7/8 x 5 1/2	1.02	5/16	4	35.0
400	406.4	28.0	363.02	0-6.4		16	455	547	93		---	26	8.0		15.9
18	18.000	400	101730	0-0.375	1.20	0.25	20.37	24.17	4.23	2	1 x 5 1/2	1.18	5/16	4	59.9
450	457.2	28.0	459.45	0-9.5		21	517	614	107		---	30	8.0		27.2
20	20.000	400	125600	0-0.375	1.08	0.23	22.46	25.99	4.35	2	1 x 5 1/2	1.18	3/8	4	69.5
500	508.0	28.0	567.22	0-9.5		19	570	660	110		---	30	9.5		31.6
24	24.000	400	180860	0-0.375	0.80	0.17	27.17	30.00	4.84	4	7/8 x 6 1/2	1.18	1/2	4	101.9
600	609.6	28.0	816.80	0-9.5		14	690	762	123		---	30	12.7		46.3
26	26.000	300	159190	0-0.500	1.06	0.22	29.58	32.78	6.69	4	1 x 10	1.97	1/2	4	173.5
650	660.4	20.0	684.72	0-12.7		18	751	832	170		---	50	12.7		78.7

Note: Dimensions are subject to change without notice. Other sizes are available on request

*Working Pressure and End Load are the total from all internal and external loads based on the applicable pipe wall thickness.

**Working Pressure is based on rings both sides fully welded standard wall carbon steel pipe.

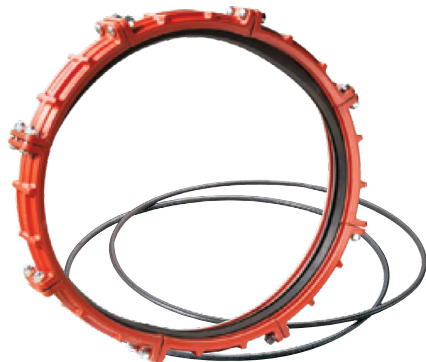
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***Some pipe standards allow for increased variation in OD as size increases. Shurjoint recommends a tolerance limit of +/- 1.6mm (0.063") for sizes larger than 26". Buyer should consult with the pipe manufacturer to limit this variation on what is acceptable, as this may affect performance.

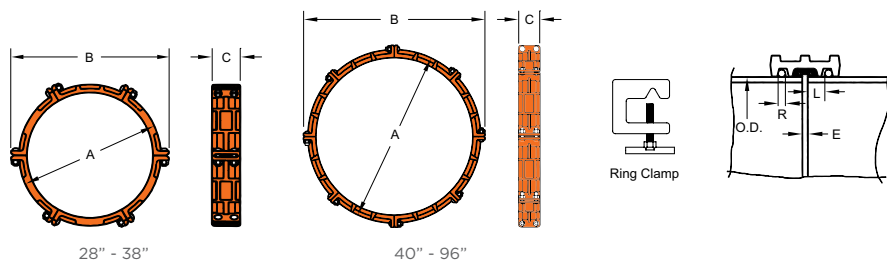
R-88 ring joint coupling

28" - 96"

R-88
28" - 96"

included in applications

- water & waste water treatment plants
- mining & tunnel boring
- pulp & paper
- hydroelectric plants
- co-gen electric plants
- food & beverage
- compressed air
- HVAC



dimensions

R88 (28" - 42")



nominal size	pipe o.d.	rings both sides fully welded**		axial displacement ¹ E	angular movement / deflection		dimensions			bolts		sealing surface L	ring size R	no. of clamps	weight
		max working pressure (cwp)*	max working load (cwp)*		per coupling	per pipe	a	b	c	no.	size				
in	in	psi	lbf	in	(°)	in/ft	in	in	in		in	in	in	No.	lbs
mm	mm	bar	kN	mm		mm/m	mm	mm	mm		mm	mm	mm		kg
28	28.0	300	184630	0-0.500	0.90	0.19	31.75	35.47	6.69	12	¾ x 4	2.00	½	4	222.2
700	711.2	20.0	794.11	0-12.7		16	806	901	170			50	12.7		101
30	30.0	300	211950	0-0.500	0.86	0.18	33.75	37.6	6.69	12	1 x 3½	2.00	½	4	218.9
750	762.0	20.0	911.61	0-12.7		15	857	955	170			50	12.7		99.5
32	32.0	300	241150	0-0.500	0.84	0.18	35.75	39.45	6.69	12	1 x 3½	2.00	½	4	225.4
800	812.8	20.0	1037.21	0-12.7		15	908	1002	170			50	12.7		102.2
34	34.0	300	272230	0-0.500	0.84	0.18	37.75	41.5	7.87	12	1 x 3½	2.00	½	4	253
850	863.4	20.0	1170.37	0-12.7		15	959	1054	200			50	12.7		115
36	36.0	300	305200	0-0.500	0.76	0.16	39.75	43.5	7.87	12	1 x 3½	2.00	½	4	246
900	914.4	20.0	1312.72	0-12.7		13	1010	1103	200			50	12.7		111.6
38	38.0	232	262980	0-0.500	0.76	0.16	41.75	45.5	7.87	12	1 x 3½	2.00	½	4	275
950	965.2	16.0	1170.10	0-12.7		13	1060	1156	200			50	12.7		125
40	40.0	232	291390	0-0.625	0.80	0.17	44.69	48.39	7.87	16	1 x 3½	2.37	¾	6	310.2
1000	1016.0	16.0	1296.51	0-15.9		14	1135	1229	200			60	15.9		141
42	42.0	232	321250	0-0.625	0.86	0.18	46.7	50.71	7.87	16	1 x 3½	2.37	¾	6	326.9
1050	1066.8	16.0	1429.41	0-15.9		15	1186	1288	200			60	15.9		148.6

Note: Dimensions are subject to change without notice. Other sizes are available on request

*Working Pressure and End Load are the total from all internal and external loads based on the applicable pipe wall thickness.

**Working Pressure is based on rings both sides fully welded standard wall carbon steel pipe.

¹ Allowable Axial Displacement and Angular Movement (Deflection) figures shown are the maximum nominal range of movement at each R-88 coupling joint when rings are welded in the standard position. For design and installation purposes these figures should be reduced by 25%.

² 10mm shoulder rings are acceptable. The number of ring clamps listed is the minimum required to correctly position the weld ring around the circumference of the pipe end.

***Some pipe standards allow for increased variation in OD as size increases. Shurjoint recommends a tolerance limit of +/- 1.6mm (0.063") for sizes larger than 26". Buyer should consult with the pipe manufacturer to limit this variation on what is acceptable, as this may affect performance.

dimensions

R88 (44" - 96")



nominal size	pipe o.d.	rings both sides fully welded**		axial displacement ¹ E	angular movement / deflection		dimensions			bolts		sealing surface L	ring size R	no. of clamps	weight
		max working pressure (cwp)*	max working load (cwp)*		per coupling	per pipe	a	b	c	no.	size				
in	in	psi	lbf	in	(°)	in/ft	in	in	in		in	in	in	no.	lbs
mm	mm	bar	kN	mm		mm/m	mm	mm	mm		mm	mm	mm		kg
44	44.0	232	352580	0-0.625	0.80	0.17	48.66	52.64	7.87	16	1 x 3½	2.37	⅝	6	343.2
1100	1117.6	16.0	1568.78	0-15.9		14	1236	1337	200		60	15.9	156		
48	48.0	232	419600	0-0.625	0.70	0.15	52.68	55.91	7.87	16	1 x 3½	2.37	⅝	6	466.7
1200	1219.2	16.0	1866.98	0-15.9		12	1338	1420	200		60	15.9	211.8		
52	52.0	175	371460	0-0.625	---	---	61.25	60.67	7.87	16	1¼ x 5	2.37	⅝	6	453.2
1300	1320.8	12.0	1643.33	0-15.9		---	1555	1541	200		60	15.9	206		
54	54.0	175	400580	0-0.625	---	---	63.25	62.52	7.87	16	1¼ x 5	2.37	⅝	6	472.1
1350	1371.6	12.0	1772.17	0-15.9		---	1607	1588	200		60	15.9	214.6		
56	56.0	175	430800	0-0.625	---	---	65.38	64.69	7.87	16	1¼ x 5	2.37	⅝	6	488.2
1400	1422.4	12.0	1905.87	0-15.9		---	1660	1643	200		60	15.9	222		
60	60.0	175	494550	0-0.625	---	---	69.38	68.82	7.87	16	1¼ x 5	2.37	⅝	6	537.2
1500	1524.0	12.0	2187.87	0-15.9		---	1762	1748	200		60	15.9	244.2		
66	66.0	175	598709	0-0.750	---	---	76.00	75.75	8	16	1½ x 5	2.37	¾	8	612.5
1650	1676.4	12.0	2663.19	0-19.1		---	1932	1924	216		60	19.1	278.4		
68	68.0	175	635544	0-0.750	---	---	78.50	78.03	8	16	1½ x 5	2.37	¾	8	785.4
1700	1727.2	12.0	2827.04	0-19.1		---	1994	1982	216		60	19.1	357		
72	72.0	175	712513	0-0.750	---	---	82.50	82.28	8	16	1½ x 6⅞	2.37	¾	8	737.7
1800	1828.8	12.0	3169.41	0-19.1		---	2095	2090	216		60	19.1	335.3		
84	84.0	100	553890	0-0.750	---	---	94.75	93.81	8	16	1½ x 5	2.37	¾	8	780.3
2100	2133.6	7.0	2501.46	0-19.1		---	2406	2383	216		60	19.1	354.7		
96	96.0	100	723450	0-0.750	---	---	106.75	106.54	8	16	1½ x 5	2.37	¾	8	823.2
2400	2438.4	7.0	3267.21	0-19.1		---	2711	2706	216		60	19.1	374.2		

Note: Dimensions are subject to change without notice. Other sizes are available on request

*Working Pressure and End Load are the total from all internal and external loads based on the applicable pipe wall thickness.

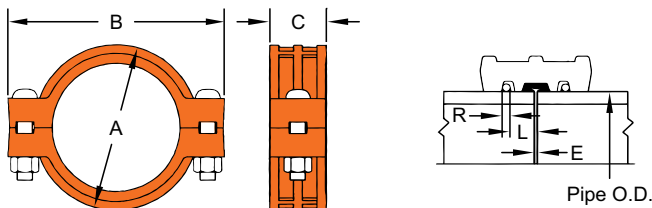
**Working Pressure is based on rings both sides fully welded standard wall carbon steel pipe.

1 Allowable Axial Displacement and Angular Movement (Deflection) figures shown are the maximum nominal range of movement at each R-88 coupling joint when rings are welded in the standard position. For design and installation purposes these figures should be reduced by 25%.

2 10mm shoulder rings are acceptable. The number of ring clamps listed is the minimum required to correctly position the weld ring around the circumference of the pipe end.

***Some pipe standards allow for increased variation in OD as size increases. Shurjoint recommends a tolerance limit of +/- 1.6mm (0.063") for sizes larger than 26". Buyer should consult with the pipe manufacturer to limit this variation on what is acceptable, as this may affect performance.

RH-1000 ring joint coupling
1000 psi



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

Two steel weld rings will be factory supplied with a coupling. Steel rings shall be always fully welded at both sides.

dimensions

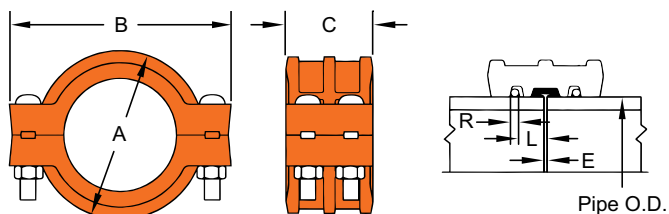


nominal size	pipe o.d.	max working pressure (cwp)*	max end load (cwp)	dimensions			bolts / nuts ¹		deflection	pipe-end preparation			
				a	b	c	no.	size		r	l	e max	weight
in	in	psi	lbf	in	in	in		in		in	in	in	lbs
mm	mm	bar	kN	mm	mm	mm				mm	mm	mm	kgs
8	8.625	1000	58390	11.10	14.65	3.86	2	1" x 5½	0° - 18'	0.472-0.500	1	0.13	39.8
200	219.1	69	263.79	282	372	98				12.0-12.7	25	3.2	18.1
10	10.750	1000	90710	13.32	16.93	4.25	2	1" x 6½	0° - 38'	0.472-0.500	1	0.13	57.2
250	273.0	69	409.54	340	430	108				12.0-12.7	25	3.2	26.0
12	12.750	1000	127610	16.33	20.07	4.17	2	1" x 6½	0° - 32'	0.472-0.500	1	0.13	72.6
300	323.9	69	576.49	415	510	106				12.0-12.7	25	3.2	33.0

*Working pressure is based on standard wall carbon steel pipe.
¹ Bolts & nuts are UNC threaded.

RX-3000 ring joint coupling

3000 psi



The Shurjoint Model RX-3000 coupling is a high pressure ring joint coupling for use with Sch. 80, 120 or heavier wall carbon steel pipelines. 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 with maximum working pressure up to 3,000 psi (210 Bar) depending on the pipe used.

Two steel weld rings will be factory supplied with a coupling. Steel rings shall be always fully welded at both sides.

dimensions



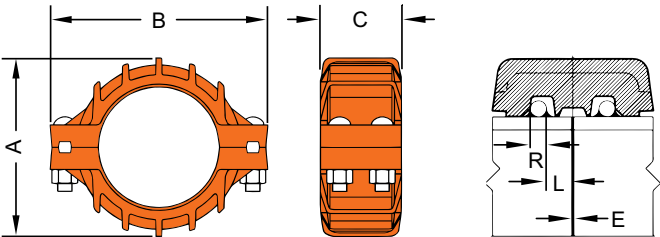
nominal size	pipe o.d.	max working pressure (cwp)*	max end load (cwp)	dimensions			bolts / nuts [†]		pipe-end preparation			weight
				a	b	c	no.	size	r	l	e	
in	in	psi	lbf	in	in	in		in	in	in	in	lbs
mm	mm	bar	kN	mm	mm	mm		mm	mm	mm	mm	kg
8	8.625	3000	175180	11.81	15.51	5.83	2	1½ x 5½	0.472-0.500	1.22	⅜	78.92
200	219.1	207	791.36	300	394	148			12.0-12.7	31	3	35.87
10	10.748	3000	272040	14.96	18.93	5.98	4	1¼ x 6½	0.625-0.629	1.22	⅜	116.36
250	273.0	207	1228.61	380	481	152			15.9-16.0	31	3	52.78
12	12.752	3000	382950	18.5	22.48	6.81	4	1½ x 6¼	0.625-0.629	1.22	⅜	212.27
300	323.9	207	1729.46	470	572	173			15.9-16.0	31	3	96.24

*Working pressure is based on API 5L X65 line pipe.

† Bolts & nuts are UNC threaded.

RX-3770 ring joint coupling

3770 psi



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. Steel rings shall always be fully welded on both sides.



proof and burst pressure testing

dimensions



nominal size	pipe o.d.	max working pressure (cwp)*	max end load (cwp)	dimensions			bolts / nuts ¹		pipe-end preparation			
				a	b	c	no.	size	r	l	e	weight
in	in	psi	lbf	in	in	in	4	in	in	in	in	lbs
mm	mm	bar	kN	mm	mm	mm			mm	mm	mm	kgs
6	6.625	3770	129890	10.24	12.64	5.87	4	7/8 x 6½	0.472	1.22	0.20	61.2
150	168.3	260	578.11	260	321	149			12	31	5	27.7
8	8.625	3770	220150	12.95	16.30	6.89	4	1¼ x 6½	0.625	1.50	0.20	110.0
200	219.1	260	979.78	329	414	175			16	38	5	49.9
10	10.750	3770	342000	15.90	19.84	7.72	4	1½ x 6¾	0.750	1.50	0.20	174.5
250	273.0	260	1521.14	404	504	196			19	38	5	79.2
12	12.750	3770	481090	19.00	23.10	8.63	4	1½ x 6¾	0.875	1.50	0.24	247.1
300	323.9	260	2141.24	482	587	219			22	38	6	112.3

*Working pressure is based on API 5L X65 line pipe.
¹ Bolts & nuts are UNC threaded.

project images



72" (1800mm) Model R-88 couplings used in a domestic water treatment plant, Ontario, Canada



36" (900mm) Model R-88 couplings used in an HVAC chilled water line for a major university, Saudia Arabic



12" (300mm) & 14" (350mm) R-88 couplings used in tunnel boring / mining application. The pipe line delivered a bentonite water mixture while the outflow was an aggressive rock and mud slurry, Portland, Oregon, USA.



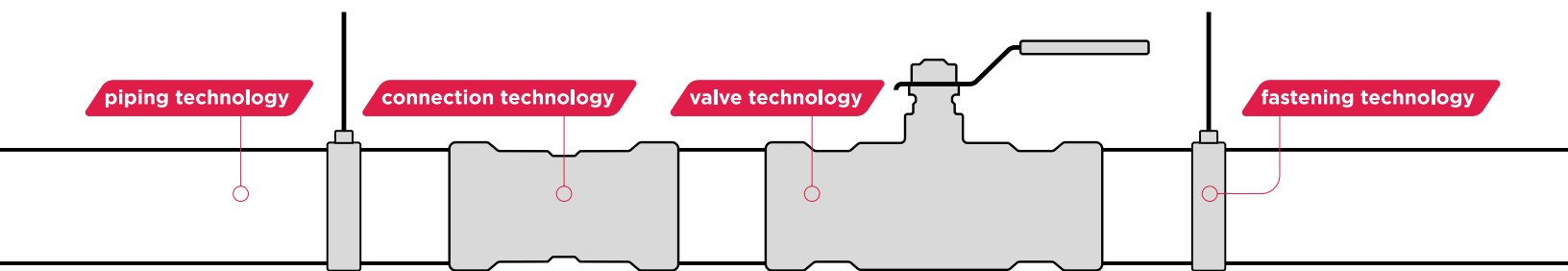
48" (1200mm) Model R-88 couplings used in a water treatment, Quarry, Utah, USA



24" (600mm), 36" (900mm) and 48" (1200mm) Model R-88 couplings with stainless steel rings used on stainless steel hydro electric pipe line, Vernon, British Columbia, Canada



48" (1200mm) Model R-88 couplings used in a water treatment, Quarry, Utah, USA



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