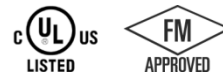


MODEL 7771 STANDARD RIGID COUPLING

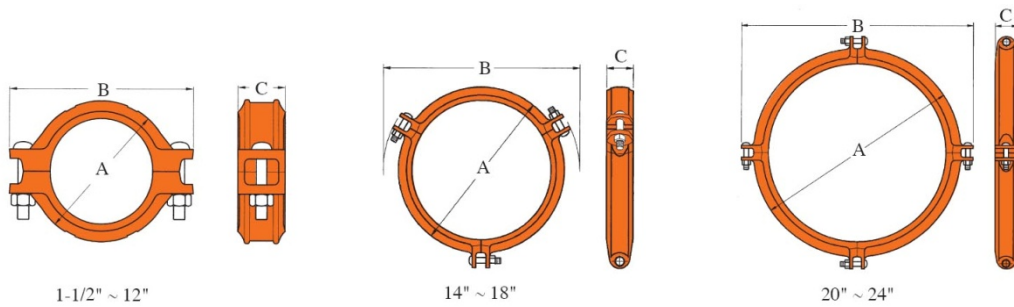
- T&G Design -

The Model 7771 Standard Rigid Coupling is the ideal choice for risers, mechanical rooms or other applications where rigidity is required. The tongue and groove design and mechanisms provide a rigid connection reducing and or eliminating flexural and torsional loads. The Model 7771 coupling sizes 1½" - 12" (40 mm – 300 mm) are comprised of two identical housing segments, sizes 14"-18" (350 mm – 400 mm) are comprised of three identical segments and sizes 20" - 24" (500 mm – 600 mm) are comprised of four identical segments. All include an EPDM rubber gasket and plated track bolts and nuts. Housing segments are supplied with our standard painted finishes, i.e. orange or RAL3000 red. Optional finishes such as hot dipped zinc galvanized and custom epoxy coatings are available.



7771 couplings should always be installed so that the coupling bolt pads make metal to metal contact.

For Fire Protection pressure rating, listing, and approval information, refer to Data Sheet B-42 or visit **SHURJOINT** website, www.shurjoint.com for details or contact your **SHURJOINT** Representative.



Full warranty terms can be found on www.shurjoint.com

Model 7771 Standard Rigid Coupling											
Nominal Size	Pipe OD	Max. Working Pressure (CWP)*	ASME/ANSI Pressure Class Rating [^]	Max. End Load (CWP)	Axial Displacement †	Dimensions			Bolt		Weight
						A	B	C	No	Size	
in	in	PSI	PSI	Lbs	in	in	in	in	in	Lbs	
mm	mm	Bar	Nom. Class	kN	mm	mm	mm	mm	mm	Kgs	
1½	1.900	500	750	1410	0-0.06	2.91	4.33	1.81	2	¾ x 2½	1.5
40	48.3	34	300	6.23	0-1.6	74	100	46	2	M10 x 55	0.7
2	2.375	500	750	2210	0-0.06	3.34	4.96	1.81	2	¾ x 2½	1.9
50	60.3	34	300	9.70	0-1.6	85	126	46	2	M10 x 55	0.9
2½	2.875	500	750	3240	0-0.06	3.89	5.82	1.81	2	¾ x 2½	2.6
65	73.0	34	300	14.22	0-1.6	99	148	46	2	M10 x 55	1.2
76.1 mm	3.000	500	750	3530	0-0.06	4.00	5.90	1.81	2	¾ x 2½	2.6
	76.1	34	300	15.46	0-1.6	102	150	46	2	M10 x 55	1.2
3	3.500	500	750	4800	0-0.06	4.52	6.69	1.81	2	½ x 3	3.3
80	88.9	34	300	21.09	0-1.6	115	170	46	2	M12 x 75	1.5
4	4.250	500	750	7090	0-0.16	5.54	7.59	2.00	2	½ x 3	4.8
100	108.0	34	300	31.13	0-4.1	141	193	51	2	M12 x 75	2.2
4	4.500	500	750	7940	0-0.16	5.82	7.79	2.00	2	½ x 3	4.8
100	114.3	34	300	34.87	0-4.1	148	198	51	2	M12 x 75	2.2
5	5.250	450	750	9730	0-0.16	6.61	9.72	2.00	2	¾ x 3½	6.0
125	133.0	31	300	43.05	0-4.1	168	247	51	2	M16 x 90	2.7
139.7 mm	5.500	450	750	10680	0-0.16	6.8	9.80	2.00	2	¾ x 3½	6.4
	139.7	31	300	47.49	0-4.1	173	249	51	2	M16 x 90	2.9
5	5.563	450	750	10930	0-0.16	6.88	9.84	2.00	2	¾ x 3½	6.4
125	141.3	31	300	48.59	0-4.1	175	250	51	2	M16 x 90	2.9
159.0 mm	6.250	450	750	13790	0-0.16	7.63	10.70	2.00	2	¾ x 3½	8.0
	159.0	31	300	61.52	0-4.1	194	272	51	2	M16 x 90	3.6
165.1 mm	6.500	450	750	14920	0-0.16	7.87	11.02	2.00	2	¾ x 3½	7.7
	165.1	31	300	66.33	0-4.1	200	280	51	2	M16 x 90	3.5

Model 7771 Standard Rigid Coupling

Nominal Size	Pipe OD	Max. Working Pressure (CWP)*	ASME/ANSI Pressure Class Rating^ @100°F/@38°C	Max. End Load (CWP)	Axial Displacement †	Dimensions			Bolt		Weight
						A	B	C	No	Size	
in mm	in mm	PSI Bar	PSI Nom. Class	Lbs kN	in mm	in mm	in mm	in mm	No	in mm	Lbs Kgs
6 150	6.625 168.3	450 31	750 300	15500 68.93	0-0.16 0-4.1	8.07 205	11.02 280	2.00 51	2	5/8 x 3 1/2 M16 x 90	8.1 3.7
8 200	8.625 219.1	300 20	400 250	17510 75.37	0-0.16 0-4.1	10.27 261	13.62 346	2.40 61	2	5/8 x 5 1/16 M16 x 135	14.6 6.6
10 250	10.750 273.0	300 20	400 250	27210 117.01	0-0.16 0-4.1	12.44 316	16.29 414	2.50 64	2	3/4 x 4 3/4 M20 x 120	18.6 8.4
12 300	12.750 323.9	300 20	400 250	38280 164.71	0-0.16 0-4.1	14.17 360	18.42 468	2.50 64	2	7/8 x 6 1/2 ---	24.5 11.1
200 JIS	8.516 216.3	300 20	400 250	17070 73.45	0-0.16 0-4.1	10.00 254	13.62 346	2.40 61	2	5/8 x 5 1/16 M16 x 135	15.2 6.9
250 JIS	10.528 267.4	300 20	400 250	26100 112.26	0-0.16 0-4.1	12.20 310	15.20 386	2.50 64	2	3/4 x 4 3/4 M20 x 120	19.3 8.7
300 JIS	12.539 318.5	300 20	400 250	37020 159.26	0-0.16 0-4.1	13.94 354	17.48 444	2.50 64	2	7/8 x 6 1/2 ---	26.0 11.2
14 350	14.000 355.6	300 20	300 150	46150 198.53	0-0.13 0-3.2	16.25 413	19.76 502	3.00 76	2	7/8 x 4 ---	31.9 14.5
16 400	16.000 406.4	300 20	300 150	60280 259.30	0-0.13 0-3.2	18.11 460	22.24 565	3.00 76	3	7/8 x 4 ---	35.2 16.0
18 450	18.000 457.2	300 20	300 150	76300 328.18	0-0.13 0-3.2	20.51 521	24.37 619	3.11 79	3	7/8 x 4 ---	37.4 17.0
20 500	20.000 508.0	300 20	300 150	94200 405.16	0-0.13 0-3.2	22.87 581	26.88 683	3.11 79	4	1 x 3 1/2 ---	52.8 24.0
22 550	22.000 558.8	250 17	300 150	94980 416.71	0-0.13 0-3.2	24.49 622	28.35 720	3.11 79	4	1 x 3 1/2 ---	58.3 26.5
24 600	24.000 609.6	250 17	300 150	113040 495.92	0-0.13 0-3.2	27.12 689	30.86 784	3.11 79	4	1 x 3 1/2 ---	62.6 28.4

* Working Pressure is based on roll grooved standard wall carbon steel pipe.

^The ASME/ANSI pressure class rating is not the design or maximum pressure rating, rather is provided for those that are accustomed to specifying or using ASME/ANSI pressure class rated components such as flange, valves, etc.

† Allowable Axial Displacement and Angular Movement (deflection) figures are for roll grooved standard steel pipe. Values for cut grooved pipe will be double that of roll grooved. These values are maximums; for design and installation purposes these figures should be reduced by: 50% for 3/4" – 3 1/2"; 25% for 4" and larger to compensate for jobsite conditions.

MATERIAL SPECIFICATIONS

• **Housing:**

Ductile Iron to ASTM A536, Gr. 65-45-12 and or ASTM A395, Gr. 65-45-15, min. tensile strength 65,000 psi (448 MPa).

• **Surface Finish:**

Standard painted finishes in orange or RAL3000 red.

- Hot dip zinc galvanized (Option).
- Epoxy Coatings in RAL3000 red or other colors (Option)

• **Rubber Gasket:**

Grade "E" EPDM (Color code: Green stripe) Good for cold & hot water up to +230°F (+110°C). 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: -30°F (-34°C) to +230°F (+110°C)*.

*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 (Color 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 +150°F (+66°C). Temperature range: -20°F to +180°F (-29°C to +82°C). **Do not use for HOT WATER above +150°F (+66°C) or HOT DRY AIR above +140°F (+60°C).**
- Other options: Grade "O" – Fluoro-elastomer. Grade "L" – Silicone. For additional details contact *Shurjoint*.

• **Bolts & Nuts:**

Heat treated carbon manganese steel track bolts to ASTM A449-83a (or A183 Gr. 2), minimum tensile strength 110,000 psi (758 MPa), Zinc electroplated, with heavy-duty hexagonal nuts to ASTM A563.

Performance Data

The following tables show the maximum working pressures (CWP) of **Shurjoint** Model 7771 Standard Rigid Coupling 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 / Bar

Unit: psi / Bar

Model 7771 on Carbon Steel Pipe					
Nom. Size	Cut-Grooved		Roll-Grooved		
	XS	STD	STD	Sch. 10	Sch. 7
1½	600	600	500	400	300
40	42	42	35	28	20
2	600	600	500	400	300
50	42	42	35	28	20
2½	600	600	500	400	300
65	42	42	35	28	20
2½	600	600	500	400	300
65	42	42	35	28	20
3	600	600	500	400	300
80	42	42	35	28	20
4	600	600	500	400	300
100	42	42	35	28	20
5	450	450	450	350	250
125	31	31	31	24	17
5	450	450	450	350	250
125	31	31	31	24	17
6	450	450	450	350	250
150	31	31	31	24	17
6	450	450	450	350	250
150	31	31	31	24	17
8	450	450	300	250	200
200	31	31	20	17	14
10	350	350	300	200	175
250	24	24	20	14	12
12	350	350	300	200	175
300	24	24	20	14	12

Model 7771 on Stainless Steel Pipe					
Nom. Size	Cut-Grooved		Roll-Grooved		
	Sch. 80S	Sch. 40S	Sch. 40S	Sch. 10S	Sch. 5S
1½	600	600	450	300	250
40	42	42	31	20	17
2	600	600	450	300	250
50	42	42	31	20	17
2½	600	600	450	300	250
65	42	42	31	20	17
2½	600	600	450	300	250
65	42	42	31	20	17
3	600	600	450	300	250
80	42	42	31	20	17
4	600	600	450	300	200
100	42	42	31	20	14
5	450	450	300	200	NR
125	31	31	20	14	NR
5	450	450	300	200	NR
125	31	31	20	14	NR
6	450	450	300	125	NR
150	31	31	20	9	NR
6	450	450	300	125	NR
150	31	31	20	9	NR
8	450	450	300	100	NR
200	31	31	20	7	NR
10	350	350	200	NR	NR
250	24	24	14	NR	NR
12	350	350	200	NR	NR
300	24	24	14	NR	NR

General Notes:

- **ASME/ANSI Pressure-Temperature Rating** is provided as an aid in selecting a proper coupling to incorporate with other piping components (valves, flanges, and etc.) that are used in the same system and carry the ASME/ANSI rating. Select a Class 150 coupling to incorporate with Class 150 valves and flanges.
- **Maximum Working Pressure (CWP)** listed is the maximum cold water pressure for general piping services tested to ASTM F1476 and or AWWA C606 methods. Figures listed are based on roll- or cut-grooved standard wall carbon steel pipe. For other pipe schedules or pipe materials, contact **Shurjoint** for additional information.
- **Max. End Load** is calculated based on the maximum working pressure (CWP).
- **Listed and or Approved Pressures** are pressure ratings for fire protection systems, tested and approved by various approval bodies. Please always refer to the latest approval data posted on the **Shurjoint** website.
- **Field Joint Test:** For one time only the system may be tested hydrostatically at 1½ 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.
- **The 10 Year Limited Warranty** applies to manufacturing defects only and does not cover severe service/temperature applications or wear parts.
- **Shurjoint** reserves the right to change specifications, designs and or standard without notice and without incurring any obligations.

Job Name:	System No.	Location:
Contractor:	Approved:	Date:
Engineer:	Approved:	Date:

Shurjoint product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact **Shurjoint** Technical Service. **Shurjoint** reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligations to make such changes and modifications on **Shurjoint** products previously subsequently sold.