

MODEL 7707A HEAVY DUTY FLEXIBLE COUPLING

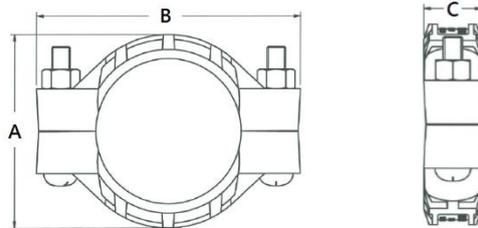
The Model 7707A Flexible Coupling is designed for use in a variety of general piping applications of moderate or high pressure services. Working pressure is usually dictated by the wall thickness and rating of the pipe being used. The Model 7707A couplings feature flexibility that can accommodate misalignment, distortion, thermal stress, vibration and noise and also resist seismic tremors. The utilization of Model 7707A couplings can accommodate a curved layout. See Typical Applications – Flexible Couplings on **SHURJOINT** cutsheet #B-19.

The Model 7707A couplings are comprised of two housing segments, EPDM gaskets 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 epoxy coatings are also available.



7707A 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.



10
YEAR
LIMITED
WARRANTY

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

Model 7707A Heavy Duty Flexible Coupling

Nominal Size	Pipe O.D.	Max. Working Pressure (CWP)*	Max. End Load (CWP)	Axial Displacement	Angular Movement**		Dimensions			Bolt		Weight
					Degree Per Coupling	Per Pipe	A	B	C	No.	Size	
in mm	in mm	PSI Bar	Lbs kN	in mm	(°)	in/ft mm/m	in mm	in mm	in mm		in mm	Lbs Kgs
5 125	5.563 141.3	1000 69	24295 108.14	0.1250 3.2	1°-18'	0.27 22	7.20 183	9.84 250	2.09 53	2	3/4 X 4-3/4 M20 x 120	9.7 4.4
8 200	8.625 219.1	800 55	46720 207.26	0.1250 3.2	0°-50'	0.18 15	10.63 270	14.02 356	2.44 62	2	7/8 X 5-1/2	20.0 9.1
10 250	10.750 273.0	800 55	72575 321.78	0.1250 3.2	0°-40'	0.14 11	12.80 325	16.46 418	2.56 65	2	1 X 6-1/2	27.3 12.4
12 300	12.750 323.9	800 55	102090 452.95	0.1250 3.2	0°-34'	0.12 10	14.76 375	18.19 462	2.60 66	2	1 X 6-1/2	30.7 13.8

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

† 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 ¾" – 3½"; 25% for 4" and larger to compensate for jobsite conditions.

** Deflection or angular movement is the maximum value that a coupling allows under no internal pressure.

Performance Data

The following tables show the maximum working pressures (CWP) of **Shurjoint** Model 7707A Heavy Duty Flexible 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.

Model 7707A on Carbon Steel Pipe					
Nom. Size	Cut-Grooved		Roll-Grooved		
	XS PSI / Bar	STD PSI / Bar	STD PSI / Bar	Sch. 10 PSI / Bar	Sch. 7 PSI / Bar
5 125	1000 69	1000 69	1000* / 750 69* / 52	500 35	350 24
8 200	800 55	800 55	800* / 600 55* / 42	350 24	250 17
10 250	800 55	800 55	800* / 550 55* / 38	300 20	200 14
12 300	800 55	800 55	800* / 500 55* / 35	300 20	200 14

Model 7707A on Stainless Steel Pipe					
Nom. Size	Cut-Grooved		Roll-Grooved		
	Sch. 80S PSI / Bar	Sch. 40S PSI / Bar	Sch. 40S PSI / Bar	Sch. 10S PSI / Bar	Sch. 5S PSI / Bar
5 125	750 52	750 52	600 42	300 20	NR
8 200	600 42	600 42	450 31	150 10	NR
10 250	600 42	600 42	400 28	125 9	NR
12 300	600 42	600 42	400 28	125 9	NR

Note: * Maximum line pressure, including surge, to which a joint should be subjected.

MATERIAL SPECIFICATIONS

• Housing:

Ductile Iron to ASTM A536, Gr. 65-45-12 and or to 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).
- Tailored epoxy coatings including 3M Scotchkote #134 for waste water, hydrocarbons, harsh chemicals and sea water services, Drynamels #4900 for exterior (outdoor) architectural applications and others (Option).

For additional details contact **Shurjoint**.

• Rubber Gasket:

Grade E-pw EPDM (Color code: Double Green stripe) approved under NSF/ANSI 61 and NSF/ANSI 372 for potable water service to +180°F (+82°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 seat for water services are not recommended for steam services unless valves or components are accessible for frequent replacement.

- (Option) **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 or chloramines, 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 seat for water services are not recommended for steam services unless valves or components are accessible for frequent 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" - Fluoroelastomer.
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. Plain washers are always supplied for epoxy coated couplings.

- Type 304 or 316 track bolts with heavy duty nuts (Option)

General Notes:

- **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.

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.