

MODEL 7707N HEAVY DUTY FLEXIBLE COUPLING

The Model 7707N Heavy Duty Flexible Coupling is designed for use in a variety of general piping applications of moderate or high pressure services. The Model 7707N couplings feature flexibility that can deal with misalignment, distortion, thermal stress, vibration and noise and also resist seismic tremors. With the use of Model 7707N couplings you can even design a curved layout. See Typical application – Flexible Couplings on *Shurjoint* cut sheet #B-19.

The Model 7707N couplings sizes 350mm – 650mm (14” – 26”) are comprised of two identical ductile iron housing segments, an EPDM rubber gasket and one or two bolts at each segment joint to ensure a positive connection and seal.



7707N couplings should always be installed so that the coupling bolt pads make metal to metal contact.



Pressure-Temperature Rating

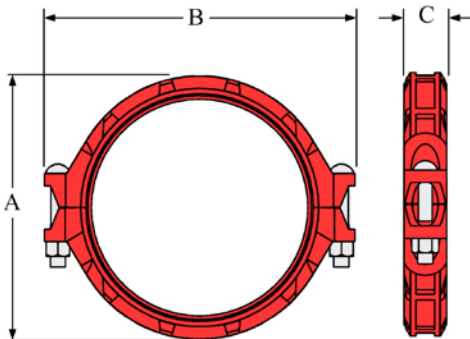
Nom. Rating	Working Pressure	Max. Service Temperature
Class 150	300 psi @100°F 20 Bar @38°C	EPDM: 230°F / 110°C Nitrile: 180°F / 82°C

*Working pressure is based on roll- or cut-grooved standard wall carbon steel pipe.

*Proof test pressure: 1.5 times the working pressure, non-shock cold water.

*Burst pressure is engineered minimum 2 times the working pressure

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Nominal Size	Pipe O.D.	Max. Working Pressure			Axial Displacement	Angular Movement		Dimensions			Bolt No.- Size	Weight
		XS (0.500")*	STD (0.375")	LW (0.312")		Degree Per Coupling	Per Pipe	A	B	C		
mm in	mm in	Bar PSI	Bar PSI	Bar PSI	mm in	(°)	mm/m in/ft	mm in	mm in	mm in	in	Kgs Lbs
350 14	355.6 14.000	20 300	20 300	17 250	6.4 0.250	1° – 02'	9.0 0.11	412 16.23	479 18.85	75 2.95	2- 7/8 x 6 1/2	15.7 34.5
400 16	406.4 16.000	20 300	20 300	17 250	6.4 0.250	0° – 54'	8.0 0.10	463 18.23	547 21.53	75 2.95	2- 1 x 6 1/2	18.4 40.5
450 18	457.2 18.000	20 300	20 300	17 250	6.4 0.250	0° – 48'	7.0 0.08	520 20.45	605 23.81	79 3.11	2- 1 x 6 1/2	22.3 47.1
500 20	508.0 20.000	20 300	20 300	17 250	6.4 0.250	0° – 44'	6.0 0.08	571 22.48	656 25.82	79 3.11	2- 1 x 6 1/2	24.5 54.0
550 22	558.8 22.000	20 300	20 300	17 250	6.4 0.250	0° – 39'	6.0 0.07	621.4 24.46	724.6 28.52	79 3.11	2- 1 1/8 x 6 1/2	28.6 63.0
600 24	609.6 24.000	20 300	20 300	17 250	6.4 0.250	0° – 36'	5.0 0.06	674 26.55	780 30.70	79 3.11	2- 1 1/8 x 6 1/2	29.5 65.1
650 26	660.4 26.0	20 300	20 300	17 250	6.4 0.250	0° – 34'	5.0 0.06	754 29.68	842 33.15	125.6 4.94	4- 7/8 x 9 5/8	65.0 143.0

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

*Pressure ratings are based on cut-grooved XS carbon steel pipe.

MATERIAL SPECIFICATIONS

• Housing:

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

• Surface Finish:

Standard painted finishes in orange or RAL3000 red.

- Hot dip zinc galvanized (Option).
- Tailored epoxy coatings including 3M Scotchkote #134 for wastewater, 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" 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)

- (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 +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 "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 758 MPa (110,000 psi), 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:

- Pressure ratings listed are CWP (cold water pressure) or maximum working pressure within the service temperature range of the gasket used in the coupling. For additional information contact **Shurjoint**.
- Maximum working pressures and end loads listed are total of internal and external pressures and loads based on Sch. 40 steel pipe with roll grooves to ANSI/AWWA C606-07 specifications. For information on other pipe schedules contact **Shurjoint**.
- **For one time field test only** the maximum joint working pressure may be increased 1½ times the figures shown.
- **Warning:** Piping systems must always be depressurized and drained before attempting disassembly and or removal of any components.
- **Shurjoint** reserves the right to change specifications, designs and or standard equipment 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.