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*** Data Sheet #B-19.

The Model 7707N couplings sizes 14" – 26" (350 mm – 650 mm) 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.

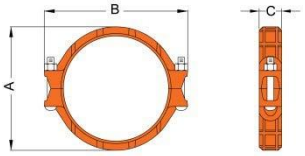
7707N couplings should always be installed so that the coupling bolt pads make metal to metal contact.



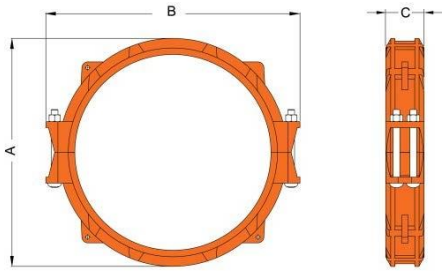
Size: 26"



Size: 14"~24"



14"~24"



26"

10 YEAR LIMITED WARRANTY

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

Model 7707N Heavy Duty Flexible Coupling

Nominal Size	Pipe O.D.	Max. Working Pressure (CWP)*	Max. End Load (CWP)	Axial Displacement †	Angular Movement**†		Dimension			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	Lbs *Kgs*
14 *350*	14.00 *355.6*	300 *20*	46150 *198.53*	0.125 *3.2*	0° – 31'	0.06 *4.5*	16.23 *412.0*	19.80 *503.0*	2.95 *75.0*	2	⅞ x 6½	34.5 *15.7*
16 *400*	16.00 *406.4*	300 *20*	60280 *259.30*	0.125 *3.2*	0° – 27'	0.05 *4.0*	18.23 *463.0*	21.85 *555.0*	2.95 *75.0*	2	1 x 6½	37.0 *16.8*
18 *450*	18.00 *457.2*	300 *20*	76300 *327.89*	0.125 *3.2*	0° – 24'	0.04 *3.5*	20.45 *520.0*	24.06 *611.0*	3.11 *79.0*	2	1 x 6½	47.1 *22.3*
20 *500*	20.00 *508.0*	300 *20*	94200 *405.16*	0.125 *3.2*	0° – 22'	0.04 *3.0*	22.48 *571.0*	26.38 *670.0*	3.11 *79.0*	2	1 x 6½	54.4 *24.7*
22 *550*	22.00 *558.8*	300 *20*	113980 *490.60*	0.125 *3.2*	0° – 19'	0.04 *3.0*	24.46 *621.4*	30.16 *766.0*	3.11 *79.0*	2	1⅛ x 6½	63.0 *28.6*
24 *600*	24.00 *609.6*	300 *20*	135640 *584.20*	0.125 *3.2*	0° – 18'	0.03 *2.5*	26.55 *674.0*	30.43 *773.0*	3.11 *79.0*	2	1⅛ x 6½	65.1 *29.5*
26 *650*	26.00 *660.4*	300 *20*	159190 *684.72*	0.125 *3.2*	0° – 17'	0.03 *2.5*	29.68 *754.0*	33.15 *842.0*	4.94 *125.6*	4	⅞ x 9⅝	143.0 *65.0*

* 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 7707N Heavy Duty Flexible Coupling used on roll-grooved carbon steel pipes.

Model 7707N on Carbon Steel Pipe			
Nom. Size	**Cut-Grooved**	**Roll-Grooved**	
in / *mm*	XS (0.500")* PSI / *Bar*	STD (0.375") PSI / *Bar*	LW (0.312") PSI / *Bar*
14 *350*	300 *20*	300 *20*	250 *17*
16 *400*	300 *20*	300 *20*	250 *17*
18 *450*	300 *20*	300 *20*	250 *17*
20 *500*	300 *20*	300 *20*	250 *17*
22 *550*	300 *20*	300 *20*	250 *17*
24 *600*	300 *20*	300 *20*	250 *17*
26 *650*	300 *20*	300 *20*	250 *17*

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

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).
- ☐ Tailored epoxy coatings including 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, 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).
- ***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.*