

7707L

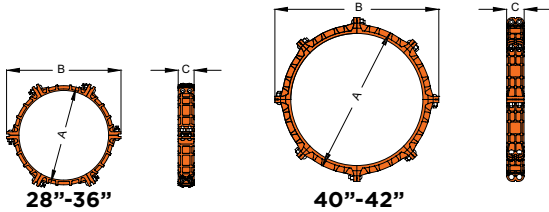
Large Diameter Coupling



Ensure coupling bolt pads
make metal-to-metal contact.



| | |
|------------------|--|
| Job Name: | |
| Job Location: | |
| Engineer: | |
| Contractor: | |
| Tag: | |
| PO#: | |
| Rep: | |
| Wholesale Dist.: | |



The Shurjoint Model 7707L Large diameter couplings in sizes 28" -42" / 700 mm - 1050 mm are designed for joining large diameter IPS pipe that can be roll grooved, or used with type A, D, or E rings. All couplings feature a six to eight segment design, incorporating two bolts at each segment joint to ensure a positive connection and seal.

DIMENSIONS

| 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 | in | PSI | lb | in | (°) | in / ft | in | in | in | | in | lb |
| mm | mm | Bar | kN | mm | | mm / m | mm | mm | mm | | | kg |
| 28 | 28.0 | 175 | 107700 | 0.250 | --- | --- | 32.0 | 35.98 | 5.0 | 12 | 7/8 x 4 | 180 |
| 700 | 711.2 | 12 | 476.47 | 6.4 | --- | --- | 813 | 914 | 127 | 12 | 7/8 x 4 | 82 |
| 30 | 30.0 | 175 | 123630 | 0.250 | --- | --- | 34.0 | 38.07 | 5.0 | 12 | 7/8 x 4 | 209 |
| 750 | 762.0 | 12 | 546.97 | 6.4 | --- | --- | 864 | 967 | 127 | 12 | 7/8 x 4 | 95 |
| 32 | 32.0 | 175 | 140670 | 0.250 | --- | --- | 36.0 | 40.08 | 5.0 | 12 | 7/8 x 4 | 207 |
| 800 | 812.8 | 12 | 622.33 | 6.4 | --- | --- | 914 | 1018 | 127 | 12 | 7/8 x 4 | 94 |
| 34 | 34.0 | 175 | 158800 | 0.250 | --- | --- | 38.3 | 42.00 | 5.0 | 12 | 7/8 x 4 | 198 |
| 850 | 863.6 | 12 | 702.55 | 6.4 | --- | --- | 974 | 1066 | 127 | 12 | 7/8 x 4 | 90 |
| 36 | 36.0 | 175 | 178030 | 0.250 | --- | --- | 40.0 | 44.02 | 5.0 | 12 | 7/8 x 4 | 212 |
| 900 | 914.4 | 12 | 787.63 | 6.4 | --- | --- | 1016 | 1118 | 127 | 12 | 7/8 x 4 | 96 |
| 40 | 40.0 | 175 | 219800 | 0.250 | --- | --- | 43.5 | 49.49 | 5.4 | 16 | 1 x 3-1/2 | 271 |
| 1000 | 1016.0 | 12 | 972.39 | 6.4 | --- | --- | 1105 | 1257 | 138 | 16 | 1 x 3-1/2 | 123 |
| 42 | 42.0 | 175 | 242330 | 0.250 | --- | --- | 45.5 | 51.57 | 5.4 | 16 | 1 x 3-1/2 | 313 |
| 1050 | 1066.8 | 12 | 1072.05 | 6.4 | --- | --- | 1156 | 1310 | 138 | 16 | 1 x 3-1/2 | 142 |

* 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 3/4" - 3-1/2"; 25% for 4" and larger to compensate for jobsite conditions.

** Deflection or angular movement given is the maximum value that a coupling allows. When using the given maximum angles for a curved layout, proper bracing should be used to counter pressure thrust that will occur when the system is pressurized. Flexible couplings can be used for angular movement and or thermal expansion, though please note individual coupling(s) cannot be used to their maximums for both types of movement within a system at the same time.

PERFORMANCE DATA

The following tables show the maximum working pressures (CWP) of Shurjoint Model 7707L Heavy Duty Flexible Coupling used on roll-grooved carbon steel pipes.

CARBON STEEL PIPE

| NOM. SIZE | CUT-GROOVED | | ROLL-GROOVED | |
|-----------|-------------|--------------|--------------|-------------|
| | XS (0.500") | STD (0.375") | STD (0.375") | LW (0.312") |
| in | psi | psi | psi | psi |
| mm | Bar | Bar | Bar | Bar |
| 28 | 250 | 175 | 175 | 125 |
| 700 | 17 | 12 | 12 | 9 |
| 30 | 250 | 175 | 175 | 125 |
| 750 | 17 | 12 | 12 | 9 |
| 32 | 250 | 175 | 175 | 125 |
| 800 | 17 | 12 | 12 | 9 |
| 34 | 250 | 175 | 175 | 125 |
| 850 | 17 | 12 | 12 | 9 |
| 36 | 250 | 175 | 175 | 125 |
| 900 | 17 | 12 | 12 | 9 |
| 40 | 250 | 175 | 175 | 125 |
| 1000 | 17 | 12 | 12 | 9 |
| 42 | 250 | 175 | 175 | 125 |
| 1050 | 17 | 12 | 12 | 9 |

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 3M Scotchkote #134 for waste water, hydrocarbons, harsh chemicals and sea water services, Drynamels #4900 for exterior (outdoor) architectural applications and others (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.

(Option) Grade "T" Nitrile (Color code: Orange stripe)

- Recommended for petroleum products, air with oil vapors, vegetable and mineral oils
- Hot dip zinc galvanized (Optional). 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 1.5 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.