

XH-70EP EXTRA HEAVY RIGID COUPLING



The *Shurjoint* Model XH-70EP coupling is an extra heavy rigid coupling for use with plastic coated pipe, cement-lined pipe or Sch. 40S or 80S stainless steel pipe. The coupling is capable of holding pressures up to 2,500 psi (175 Bar), depending on pipe size, when used in conjunction with machined EP cut-grooves and the applicable pipe. The coupling housings are painted black and supplied with an EP (End-Protection) gasket, which permits a continuous connection of lined-surface of the pipe and also protects the pipe ends from corrosion. The standard EP gaskets are made of oil-resistant Nitrile compound.

- XH-70EP couplings are not allowed on standard or commercial roll- or cut- grooved pipes. Pipe ends shall always be prepared with the *EP Cut-Grooves* which is shown in page 2.
- Always use the XH-70EP coupling with an *EP (End-Protection) gasket*. Do not use a C-shaped standard gasket with a XH-70EP coupling.

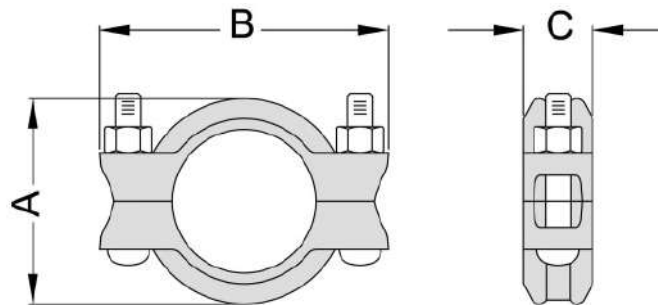


Always fasten the bolts to the required torque.

For 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.

material specification

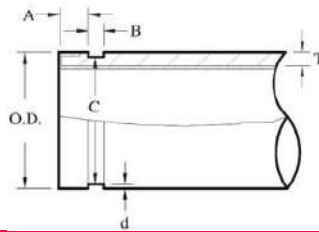
- **Housing:**
Ductile Iron to ASTM A536, Gr. 65-45-12, min. tensile strength 65,000 psi (448 MPa).
- **Rubber Gasket:**
Grade "T" Nitrile "EP" gasket (Color code: Orange stripe)
Recommended for petroleum products, air with oil vapors, vegetable and mineral oils within the specified temperature range. 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 "E" - EPDM
- **Surface Finish:**
Standard painted finish in black enamel.
- **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.



Model XH-70EP Extra Heavy Rigid Coupling

| Normal Size | Pipe O.D. | Max. Working Pressure (CWP)* | Max. End Load (CWP) | Dimensions | | | Bolt No. | Bolt | | Weight |
|-------------|-----------|------------------------------|---------------------|------------|-------|------|----------|-------------|-----------|--------|
| | | | | A | B | C | | Size | Torque | |
| in | in | psi | lbf | in | in | in | | in | lbs-ft | lbs |
| mm | mm | bar | kN | mm | mm | mm | | mm | Nm | kg |
| 2 | 2.375 | 2500 | 11070 | 3.54 | 5.71 | 1.92 | 2 | 5/8 x 2 3/4 | 60 - 90 | 3.3 |
| 50 | 60.3 | 175 | 50 | 90 | 145 | 49 | | | 80 - 120 | 1.5 |
| 2 1/2 | 2.875 | 2500 | 16220 | 4.06 | 6.61 | 1.92 | 2 | 5/8 x 2 3/4 | 60 - 90 | 4 |
| 65 | 73 | 175 | 73.2 | 103 | 168 | 49 | | | 80 - 120 | 1.8 |
| 3 | 3.5 | 2500 | 24040 | 4.8 | 7.4 | 2 | 2 | 5/8 x 2 3/4 | 60 - 90 | 4.8 |
| 80 | 88.9 | 175 | 108.6 | 122 | 188 | 51 | | | 80 - 120 | 2.2 |
| 4 | 4.5 | 2500 | 39740 | 6.18 | 8.74 | 2.17 | 2 | 3/4 x 4 3/4 | 74 - 170 | 8.8 |
| 100 | 114.3 | 175 | 179.5 | 157 | 222 | 55 | | | 100 - 235 | 4 |
| 6 | 6.625 | 2000 | 68910 | 8.58 | 11.61 | 2.25 | 2 | 7/8 x 5 1/2 | 125 - 200 | 17.6 |
| 150 | 168.3 | 140 | 311.3 | 218 | 295 | 57 | | | 170 - 275 | 8 |
| 8 | 8.625 | 1500 | 116790 | 10.83 | 14.33 | 2.75 | 2 | 1 x 5 1/2 | 200 - 300 | 24 |
| 200 | 219.1 | 105 | 527.6 | 275 | 364 | 70 | | | 275 - 400 | 10.9 |
| 10 | 10.75 | 1250 | 113400 | 13.15 | 16.7 | 2.95 | 2 | 1 x 5 1/2 | 200 - 300 | 31.2 |
| 250 | 273 | 88 | 514.8 | 334 | 424 | 75 | | | 275 - 400 | 14.2 |
| 12 | 12.75 | 1250 | 159510 | 15.35 | 18.9 | 2.95 | 2 | 1 x 5 1/2 | 200 - 300 | 36.7 |
| 300 | 323.9 | 88 | 724.7 | 390 | 480 | 75 | | | 275 - 400 | 16.7 |

*Working pressure is based on EP cut grooved XS, Sch. 80 pipe



“EP” End Protection Cut Grooving Dimensions for XH-70EP Couplings

| Nominal Size | Pipe O.D. | | | Gasket Seat A Cut Groove | | Groove Width B Cut Groove | | Groove dia. C. | | Groove Depth d |
|--------------|-----------|-----------|-------|--------------------------|--------|---------------------------|------------------|----------------|-------------|----------------|
| | Basic | Tolerance | | Basic | Tol. ± | Basic | Tol. +0.25/+0.01 | Basic | Tol. +0/+0. | (ref.) |
| | | + | - | | | | | | | |
| in | in | in | in | in | in | in | in | in | in | in |
| mm | mm | mm | mm | mm | mm | mm | mm | mm | mm | mm |
| 2 | 2.38 | 0.02 | -0.02 | 0.56 | ±0.010 | 0.255 | -0.005 | 2.25 | -0.015 | 0.063 |
| 50 | 60.3 | 0.61 | -0.61 | 14.3 | ±0.25 | 6.48 | -0.13 | 57.15 | -0.38 | 1.6 |
| 2½ | 2.88 | 0.03 | -0.03 | 0.56 | ±0.010 | 0.255 | -0.005 | 2.72 | -0.018 | 0.078 |
| 65 | 73.0 | 0.74 | -0.74 | 14.3 | ±0.25 | 6.48 | -0.13 | 69.09 | -0.46 | 1.98 |
| 3 | 3.5 | 0.04 | -0.03 | 0.56 | ±0.010 | 0.255 | -0.005 | 3.344 | -0.018 | 0.078 |
| 80 | 88.9 | 0.89 | -0.79 | 14.3 | ±0.25 | 6.48 | -0.13 | 84.94 | -0.46 | 1.98 |
| 4 | 4.5 | 0.05 | -0.03 | 0.61 | ±0.015 | 0.305 | -0.005 | 4.334 | -0.02 | 0.083 |
| 100 | 114.3 | 1.14 | -0.79 | 15.4 | ±0.38 | 7.75 | -0.13 | 110.08 | -0.51 | 2.11 |
| 6 | 6.63 | 0.06 | -0.03 | 0.61 | ±0.015 | 0.305 | -0.005 | 6.455 | -0.022 | 0.085 |
| 150 | 168.3 | 1.6 | -0.79 | 15.4 | ±0.38 | 7.75 | -0.13 | 163.9 | -0.56 | 2.16 |
| 8 | 8.63 | 0.06 | -0.03 | 0.71 | ±0.015 | 0.4 | -0.01 | 8.441 | -0.025 | 0.092 |
| 200 | 219.1 | 1.6 | -0.79 | 18.1 | ±0.38 | 10.16 | -0.25 | 214.4 | -0.64 | 2.34 |
| 10 | 10.75 | 0.06 | -0.03 | 0.71 | ±0.015 | 0.4 | -0.01 | 10.56 | -0.027 | 0.094 |
| 250 | 273.0 | 1.6 | -0.79 | 18.1 | ±0.38 | 10.16 | -0.25 | 268.2 | -0.69 | 2.39 |
| 12 | 12.75 | 0.06 | -0.03 | 0.71 | ±0.015 | 0.4 | -0.01 | 12.531 | -0.03 | 0.109 |
| 300 | 323.9 | 1.6 | -0.79 | 18.1 | ±0.38 | 10.16 | -0.25 | 318.29 | -0.76 | 2.77 |

- EP cut-grooves are for plastic coated or cement lined pipe to be connected with **Shurjoint** XH-70EP couplings only. Any coating applied to the gasket seat (A) and gasket width (B) should not exceed 0.25mm (0.010”) thick. Do not roll groove pipe, which can damage the coating or lining and or create flared pipe ends.
- Always use plain-end square cut pipe. Do not use beveled end pipe.
- Always use an EP gasket with a XH-70EP coupling. Do not use a standard gasket.
- The gasket seating area shall be free from deep scores, marks, or ridges that could prevent a positive seal.

General note

- 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 1¼ 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.