

Z07 HEAVY DUTY RIGID COUPLING



For pressure rating, listing, and approval information, refer to data sheet or visit SHURJOINT website www.shurjoint.com for details or contact your SHURJOINT representatives.

The Shurjoint Model Z07 is an angle-pad design rigid coupling for general piping applications where rigidity is required including valve connections, mechanical rooms, fire mains and long straight runs. The angle-pad design allows the coupling housings to slide along the bolt pads when tightened. The result is an offset clamping action which provides a rigid joint that resists flexural and torsional loads. Support and hanging requirements correspond to ANSI B31.1, B31.9 and NFPA 13.

The Shurjoint Model Z07 is available with a standard "C" shaped or GapSeal gasket in a variety of grades to meet your specific service requirements.



Z07 couplings should always be installed so that the coupling bolt pads make metal to metal contact.

material specification

- **Housing:**
Ductile Iron to ASTM A536, Gr. 65-45-12, min. tensile strength 65,000 psi (448 MPa).
- **Surface Finish:**
Standard painted finishes in orange or RAL3000 red.
 - Hot dip zinc galvanized (Option).
 - Epoxy Coatings in RAL3000 red or other colors (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 or chloramines, deionized water, seawater and waste water, dilute acids, oil-free air and many chemicals.

Not recommended for petroleum oils, mineral oils, solvents and aromatic hydrocarbons.

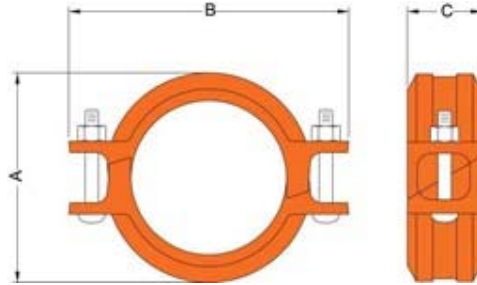
Maximum Temperature Range: -30°F (-34°C) to +230°F (+110°C)*.

*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, mineral oils, solvents and aromatic hydrocarbons.
Maximum Temperature Range: -30°F (-34°C) to +230°F (+110°C)*.
- Other options: Grade "T" - Nitrile
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 Type 304 or 316 track bolts with heavy duty nuts (Option).



Model Z07 Heavy Duty Rigid Coupling

| Normal Size | Pipe O.D. | Max. Working Pressure (CWP)* | Max. End Load (CWP) | Axial Displacement [†] | Dimensions | | | Bolt | | Weight |
|-------------|-----------|------------------------------|---------------------|---------------------------------|------------|-------|------|------|-----------|--------|
| | | | | | A | B | C | No. | Size | |
| in | in | psi | lbf | in | in | in | in | | in | lbs |
| mm | mm | bar | kN | mm | mm | mm | mm | | mm | kg |
| 1¼ | 1.660 | 750 | 1620 | 0 - 0.05 | 2.68 | 4.13 | 1.85 | 2 | ¾ x 2½ | 1.6 |
| 32 | 42.2 | 52 | 7.27 | 0-1.2 | 68 | 105 | 47 | | M10 x 55 | 0.7 |
| 1½ | 1.900 | 750 | 2120 | 0 - 0.05 | 2.91 | 4.53 | 1.85 | 2 | ¾ x 2½ | 2.0 |
| 40 | 48.3 | 52 | 9.52 | 0-1.2 | 74 | 115 | 47 | | M10 x 55 | 0.9 |
| 2 | 2.375 | 750 | 3320 | 0 - 0.07 | 3.39 | 4.69 | 1.88 | 2 | ¾ x 2¾ | 2.4 |
| 50 | 60.3 | 52 | 14.84 | 0-1.7 | 86 | 119 | 48 | | M10 x 70 | 1.1 |
| 2½ | 2.875 | 750 | 4860 | 0 - 0.07 | 3.94 | 5.50 | 1.88 | 2 | ¾ x 2¾ | 2.4 |
| 65 | 73.0 | 52 | 21.75 | 0-1.7 | 100 | 140 | 48 | | M10 x 70 | 1.1 |
| 76.1 | 3.000 | 750 | 5290 | 0 - 0.07 | 4.00 | 5.75 | 1.88 | 2 | ¾ x 2¾ | 2.4 |
| | 76.1 | 52 | 23.64 | 0-1.7 | 102 | 146 | 48 | | M10 x 70 | 1.1 |
| 3 | 3.500 | 750 | 7210 | 0 - 0.07 | 4.53 | 6.54 | 1.88 | 2 | ½ x 3 | 3.1 |
| 80 | 88.9 | 52 | 32.26 | 0-1.7 | 115 | 166 | 48 | | M12 x 75 | 1.4 |
| 4 | 4.500 | 750 | 11920 | 0 - 0.16 | 5.78 | 8.11 | 2.13 | 2 | ½ x 3 | 4.4 |
| 100 | 114.3 | 52 | 53.33 | 0-4.1 | 147 | 206 | 54 | | M12 x 75 | 2.0 |
| 139.7 | 5.500 | 750 | 17810 | 0 - 0.16 | 6.88 | 9.37 | 2.09 | 2 | ⅝ x 3½ | 6.6 |
| | 139.7 | 52 | 79.66 | 0-4.1 | 175 | 238 | 53 | | M16 x 90 | 3.0 |
| 5 | 5.563 | 750 | 18220 | 0 - 0.16 | 6.97 | 9.45 | 2.09 | 2 | ⅝ x 3½ | 6.6 |
| 125 | 141.3 | 52 | 81.50 | 0-4.1 | 177 | 240 | 53 | | M16 x 90 | 3.0 |
| 165.1 | 6.500 | 700 | 23210 | 0 - 0.16 | 7.87 | 10.47 | 2.09 | 2 | ⅝ x 3½ | 7.5 |
| | 165.1 | 48 | 102.71 | 0-4.1 | 200 | 266 | 53 | | M16 x 90 | 3.4 |
| 6 | 6.625 | 700 | 24110 | 0 - 0.16 | 8.00 | 10.67 | 2.09 | 2 | ⅝ x 3½ | 7.1 |
| 150 | 168.3 | 48 | 106.73 | 0-4.1 | 203 | 271 | 53 | | M16 x 90 | 3.2 |
| 8 | 8.625 | 600 | 35030 | 0 - 0.19 | 10.55 | 13.46 | 2.52 | 2 | ¾ x 4¾ | 15.7 |
| 200 | 219.1 | 42 | 158.27 | 0-4.8 | 268 | 342 | 64 | | M20 x 120 | 7.1 |
| 10 | 10.750 | 500 | 45350 | 0 - 0.13 | 12.86 | 15.60 | 2.56 | 2 | ⅞ x 6½ | 27.4 |
| 250 | 273.0 | 35 | 204.77 | 0-3.2 | 327 | 396 | 65 | | --- | 10.4 |

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|-------------|-----------|------------------------------|---------------------|---------------------|------------|-------|------|------|-------------|--------|
| | | | | | A | B | C | No. | Size | |
| in | in | psi | lbf | in | in | in | in | | in | lbs |
| mm | mm | bar | kN | mm | mm | mm | mm | | mm | kg |
| 12 | 12.750 | 400 | 51040 | 0 - 0.13 | 14.86 | 17.80 | 2.56 | 2 | 7/8 x 6 1/2 | 26.0 |
| 300 | 323.9 | 28 | 230.59 | 0-3.2 | 377 | 452 | 65 | | --- | 11.8 |
| 200 JIS | 8.516 | 600 | 34150 | 0 - 0.13 | 10.39 | 13.35 | 2.50 | 2 | 3/4 x 4 3/4 | 16.3 |
| | 216.3 | 42 | 154.25 | 0-3.2 | 264 | 339 | 64 | | M20 x 120 | 7.4 |
| 250 JIS | 10.528 | 500 | 43500 | 0 - 0.13 | 12.63 | 15.63 | 2.56 | 2 | 7/8 x 6 1/2 | 23.1 |
| | 267.4 | 35 | 196.45 | 0-3.2 | 321 | 397 | 65 | | --- | 10.5 |
| 300 JIS | 12.539 | 400 | 49360 | 0 - 0.13 | 14.65 | 17.80 | 2.56 | 2 | 7/8 x 6 1/2 | 27.4 |
| | 318.5 | 28 | 222.97 | 0-3.2 | 372 | 452 | 65 | | --- | 12.4 |

* Working Pressure is based on roll grooved standard wall carbon steel pipe. Pressure ratings for use on cut grooved pipe, thin wall carbon steel pipe, and on stainless steel pipe can be found on Shurjoint publication [B-33](#).

† Allowable Axial Displacement 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.

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 1 1/2 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.