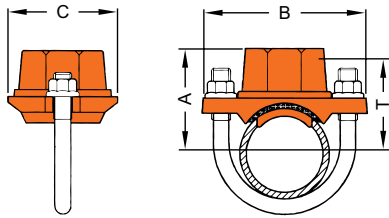




| | |
|------------------|--|
| Job Name: | |
| Job Location: | |
| Engineer: | |
| Contractor: | |
| Tag: | |
| PO#: | |
| Rep: | |
| Wholesale Dist.: | |



The Model 723 Mechanical Tee when mounted on hole cut pipe provides a fast and easy mid-pipe threaded branch outlet. By utilizing the Model 723 you eliminate the need for welding or the use of multiple fittings. The Mechanical Tee is comprised of upper ductile iron housing segment, a grade "E" EPDM rubber molded gasket and plated U-bolts and nuts. The saddle-let is supplied with our standard paint finish. Hot dipped galvanized and other finishes are available.

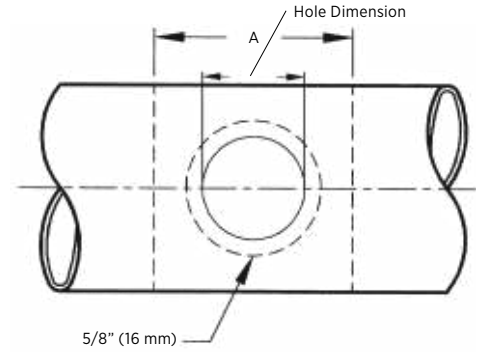
For Fire Protection pressure rating, listing, and approval information, refer to Data Sheet B-42 or visit www.shurjoint.com for details or contact Shurjoint.

DIMENSIONS

| NOMINAL SIZE RUN X BRANCH | MAX. WORKING PRESSURE (CWP)* | DIMENSIONS | | | | BOLT SIZE | BOLT TORQUE | WEIGHT |
|------------------------------|---------------------------------|------------|------|------|----------------|-----------|-------------|--------|
| | | A | B | C | T ₁ | | | |
| in | PSI | in | in | in | in | in | lb-ft | lb |
| mm | Bar | mm | mm | mm | mm | mm | Nm | kg |
| 1-1/4 x 1/2 | 300 | 3.5 | 2.2 | 1.73 | 1.97 | 3/8 | 15-22 | 0.9 |
| 32 x 15 | 20 | 89 | 56 | 44 | 50 | U-Bolt | 20-30 | 0.4 |
| 1-1/4 x 3/4 | 300 | 3.5 | 2.2 | 1.73 | 1.97 | 3/8 | 15-22 | 0.9 |
| 32 x 20 | 20 | 89 | 56 | 44 | 50 | U-Bolt | 20-30 | 0.4 |
| 1-1/4 x 1 | 300 | 3.5 | 2.2 | 1.85 | 2.13 | 3/8 | 15-22 | 0.9 |
| 32 x 25 | 20 | 89 | 56 | 47 | 54 | U-Bolt | 20-30 | 0.4 |
| 1-1/2 x 1/2 | 300 | 3.5 | 2.24 | 1.81 | 2.09 | 3/8 | 15-22 | 0.9 |
| 40 x 15 | 20 | 89 | 57 | 46 | 53 | U-Bolt | 20-30 | 0.4 |
| 1-1/2 x 3/4 | 300 | 3.5 | 2.24 | 1.81 | 2.09 | 3/8 | 15-22 | 0.9 |
| 40 x 20 | 20 | 89 | 57 | 46 | 53 | U-Bolt | 20-30 | 0.4 |
| 1-1/2 x 1 | 300 | 3.5 | 2.24 | 1.93 | 2.28 | 3/8 | 15-22 | 0.9 |
| 40 x 25 | 20 | 89 | 57 | 49 | 58 | U-Bolt | 20-30 | 0.4 |
| 2 x 1/2 | 300 | 3.82 | 2.24 | 2.09 | 2.36 | 3/8 | 15-22 | 0.9 |
| 50 x 15 | 20 | 97 | 57 | 53 | 60 | U-Bolt | 20-30 | 0.4 |
| 2 x 3/4 | 300 | 3.82 | 2.24 | 2.09 | 2.36 | 3/8 | 15-22 | 0.9 |
| 50 x 20 | 20 | 97 | 57 | 53 | 60 | U-Bolt | 20-30 | 0.4 |
| 2 x 1 | 300 | 3.82 | 2.24 | 2.2 | 2.52 | 3/8 | 15-22 | 0.9 |
| 50 x 25 | 20 | 97 | 57 | 56 | 64 | U-Bolt | 20-30 | 0.4 |
| 2-1/2 x 1/2 | 300 | 4.37 | 2.24 | 2.28 | 2.6 | 3/8 | 15-22 | 0.9 |
| 65 x 15 | 20 | 111 | 57 | 58 | 66 | U-Bolt | 20-30 | 0.4 |
| 2-1/2 x 3/4 | 300 | 4.37 | 2.24 | 2.28 | 2.6 | 3/8 | 15-22 | 0.9 |
| 65 x 20 | 20 | 111 | 57 | 58 | 66 | U-Bolt | 20-30 | 0.4 |
| 2-1/2 x 1 | 300 | 4.37 | 2.24 | 2.4 | 2.76 | 3/8 | 15-22 | 1.1 |
| 65 x 25 | 20 | 111 | 57 | 61 | 70 | U-Bolt | 20-30 | 0.5 |

T₁: Take-out (Center of run to end of pipe to be engaged)
 *Working Pressure is based on standard wall carbon steel pipe.

The method of pipe preparation requires the cutting or drilling of a specified hole size on the centerline of the pipe. Always use the correct hole saw size as shown in the table. After the hole has been cut all sharp edges and burrs must be removed and the area within 5/8" (16 mm) of the hole should be inspected to ensure a clean smooth surface, free of any indentations or projections that could affect proper gasket sealing.



HOLE SIZES

| HEADER SIZE | BRANCH SIZE | HOLE DIMENSIONS | | A. SURFACE PREPARATION * |
|-------------|-------------|-----------------|------------------|--------------------------|
| | | HOLE SAW SIZE | MAX DIA. ALLOWED | |
| in | in | in | in | in |
| mm | mm | mm | mm | mm |
| 1-1/4 | 1/2, 3/4, 1 | 1-3/16 | 1-1/4 | 3-1/2 |
| 32 | 15, 20, 25 | 30 | 32 | 89 |
| 1-1/2 | 1/2, 3/4, 1 | 1-3/16 | 1-1/4 | 3-1/2 |
| 40 | 15, 20, 25 | 30 | 32 | 89 |
| 2 | 1/2, 3/4, 1 | 1-3/16 | 1-1/4 | 3-1/2 |
| 50 | 15, 20, 25 | 30 | 32 | 89 |
| 2-1/2 | 1/2, 3/4, 1 | 1-3/16 | 1-1/4 | 3-1/2 |
| 65 | 15, 20, 25 | 30 | 32 | 89 |

LISTINGS/APPROVALS

The information provided below is based on the latest listing and approval data at the time of publication. Listings/Approvals are subject to change and/or additions by the approvals agencies. Contact Shurjoint for the performance on other pipes and the latest listings and approvals

| UL / CUL | | | | |
|-------------|--------|--------|------------|------|
| NOM. SIZE | SCH 40 | SCH 10 | BS13 87(M) | DF |
| in | psi | psi | psi | psi |
| mm | Bar | Bar | Bar | Bar |
| 1-1/4 x 1/2 | 300 | 300 | †175 | 300 |
| 32 x 15 | 20 | 20 | †12 | 20 |
| 1-1/4 x 3/4 | 300 | 300 | †175 | 300 |
| 32 x 20 | 20 | 20 | †12 | 20 |
| 1-1/4 x 1 | 300 | 300 | †175 | 300 |
| 32 x 25 | 20 | 20 | †12 | 20 |
| 1-1/2 x 1/2 | 300 | 300 | †175 | 300 |
| 40 x 15 | 20 | 20 | †12 | 20 |
| 1-1/2 x 3/4 | 300 | 300 | †175 | 300 |
| 40 x 20 | 20 | 20 | †12 | 20 |
| 1-1/2 x 1 | 300 | 300 | †175 | ‡300 |
| 40 x 25 | 20 | 20 | †12 | †20 |
| 2 x 1/2 | 300 | 300 | †175 | 300 |
| 50 x 15 | 20 | 20 | †12 | 20 |
| 2 x 3/4 | 300 | 300 | †175 | 300 |
| 50 x 20 | 20 | 20 | †12 | 20 |
| 2 x 1 | 300 | 300 | †175 | ‡300 |
| 50 x 25 | 20 | 20 | †12 | †20 |
| 2-1/2 x 1/2 | 300 | 300 | †175 | 300 |
| 65 x 15 | 20 | 20 | †12 | 20 |
| 2-1/2 x 3/4 | 300 | 300 | †175 | 300 |
| 65 x 20 | 20 | 20 | †12 | 20 |
| 2-1/2 x 1 | 300 | 300 | †175 | 300 |
| 65 x 25 | 20 | 20 | †12 | 20 |

* Also XL and XL-II pipe
† Also EF pipe

| FM | | | |
|-------------|--------|--------|--------|
| NOM. SIZE | SCH 40 | SCH 10 | XL, DF |
| in | psi | psi | psi |
| mm | Bar | Bar | Bar |
| 1-1/4 x 1/2 | 300 | 300 | ‡300 |
| 32 x 15 | 20 | 20 | †20 |
| 1-1/4 x 3/4 | 300 | 300 | ‡300 |
| 32 x 20 | 20 | 20 | †20 |
| 1-1/4 x 1 | 300 | 300 | ‡300 |
| 32 x 25 | 20 | 20 | †20 |
| 1-1/2 x 1/2 | 300 | 300 | ‡300 |
| 40 x 15 | 20 | 20 | †20 |
| 1-1/2 x 3/4 | 300 | 300 | ‡300 |
| 40 x 20 | 20 | 20 | †20 |
| 1-1/2 x 1 | 300 | 300 | ‡300 |
| 40 x 25 | 20 | 20 | †20 |
| 2 x 1/2 | 300 | 300 | ‡300 |
| 50 x 15 | 20 | 20 | †20 |
| 2 x 3/4 | 300 | 300 | ‡300 |
| 50 x 20 | 20 | 20 | †20 |
| 2 x 1 | 300 | 300 | ‡300 |
| 50 x 25 | 20 | 20 | †20 |
| 2-1/2 x 1/2 | 300 | 300 | 300 |
| 65 x 15 | 20 | 20 | 20 |
| 2-1/2 x 3/4 | 300 | 300 | 300 |
| 65 x 20 | 20 | 20 | 20 |
| 2-1/2 x 1 | 300 | 300 | 300 |
| 65 x 25 | 20 | 20 | 20 |

‡ Also BLT, Eddy-Lite, & WLS

| LPCB | |
|---------------|----------|
| NOM. SIZE | PRESSURE |
| in | psi |
| mm | Bar |
| 1-1/4 x 1/2 | 175 |
| 32 x 15 | 12 |
| 1-1/4 x 3/4 | 175 |
| 32 x 20 | 12 |
| 1-1/4 x 1 | 175 |
| 32 x 25 | 12 |
| 1-1/2 x 1/2 | 175 |
| 40 x 15 | 12 |
| 1-1/2 x 3/4 | 175 |
| 40 x 20 | 12 |
| 1-1/2 x 1 | 175 |
| 40 x 25 | 12 |
| 2 x 1/2 | 175 |
| 50 x 15 | 12 |
| 2 x 3/4 | 175 |
| 50 x 20 | 12 |
| 2 x 1 | 175 |
| 50 x 25 | 12 |
| 76.1 mm x 1/2 | 175 |
| 65 x 15 | 12 |
| 76.1 mm x 3/4 | 175 |
| 65 x 20 | 12 |
| 76.1 mm x 1 | 175 |
| 65 x 25 | 12 |

FLOW DATA

Values for flow of water at +60°F (+16°C).

$$Cv = \frac{Q}{\sqrt{\Delta P}}$$

Where:

Cv = Flow coefficient

Q = Flow (GPM)

ΔP = Pressure drop (psi)

Cv VALUES

| NOMINAL SIZE | CV VALUES |
|--------------|-----------|
| in | |
| mm | |
| 1/2 | 10 |
| 15 | 10 |
| 3/4 | 15 |
| 20 | 15 |
| 1 | 22 |
| 25 | 22 |

FLOW CHARACTERISTICS

| NOMINAL SIZE | EQUIVALENT LENGTH |
|--------------|-------------------|
| in | feet |
| mm | m |
| 1/2 | 3.0 |
| 15 | 0.9 |
| 3/4 | 5.0 |
| 20 | 1.5 |
| 1 | 8.0 |
| 25 | 2.4 |

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:

- Black (bare metal) with thin rust-proof oil.
- Painted finishes in orange or RAL3000 red (optional)
- Hot dip zinc galvanized (optional)
- Epoxy coatings in RAL3000 red or other colors (optional)

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 unless couplings or components are accessible for frequent gasket replacement.

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

- Recommended for petroleum products, air with oil vapors, vegetable and mineral oils.
- 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.

U-BOLTS & NUTS:

- Plated U-bolt conforming to ASTM A307 with hex nuts to ASTM A563.

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.