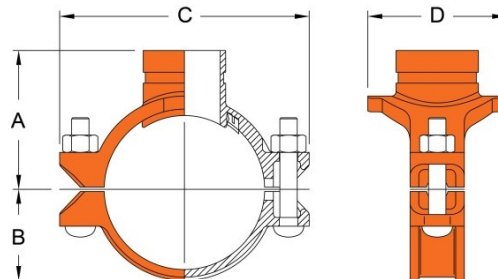


## MODEL 7722 MECHANICAL TEE, GROOVED-END OUTLET

The Model 7722 Mechanical Tee when mounted on the hole cut pipe provides a fast and easy mid-pipe grooved-end branch outlet. By utilizing the Model 7722 you eliminate the need for welding or the use of multiple fittings. The mechanical Tee is comprised of upper and lower ductile iron housing segments, a grade "E" EPDM rubber molded gasket and plated track bolts and nuts. Mechanical tees are supplied with our standard painted finishes, i.e. orange or RAL3000 red. Optional finishes such as hot dipped zinc galvanized and custom epoxy coating are also available.



For Fire Protection pressure rating, listing, and approval information, refer to Data Sheet B-42 or visit **SHURJOINT** website, [www.shurjoint.com](http://www.shurjoint.com) for details or contact your **SHURJOINT** Representative.



Full warranty terms can be found on [www.shurjoint.com](http://www.shurjoint.com)

### Model 7722 Mechanical Tee, Grooved-End Outlet

Nominal Size Run x Branch	Pipe O.D.	Max. Working Pressure (CWP)*	HOLE DIA. + +0.13, -0 / +3.2, -0	Dimensions				Bolt Size	Weight
				A	B	C	D		
in	in	PSI	in	in	in	in	in	in	Lbs
mm	mm	Bar	mm	mm	mm	mm	mm	mm	Kgs
2 x 1 50 x 25	2.375 x 1.315 60.3 x 33.4	300 20	1.50 38	2.68 68	1.57 40	5.04 128	2.87 73	5/8 x 2 1/8 M10 x 55	2.2 1.0
2 x 1 1/4 50 x 32	2.375 x 1.660 60.3 x 42.2	300 20	1.75 45	2.80 71	1.57 40	5.04 128	3.22 82	5/8 x 2 7/8 M10 x 55	2.2 1.0
2 x 1 1/2 50 x 40	2.375 x 1.900 60.3 x 48.3	300 20	1.75 45	2.80 71	1.57 40	5.04 128	3.22 82	5/8 x 2 7/8 M10 x 55	2.6 1.2
2 1/2 x 1 65 x 25	2.875/3.000 x 1.315 73.0/76.1 x 33.4	300 20	1.50 38	2.95 75	1.89 48	5.75 146	2.87 73	1/2 x 3 M12 x 75	4.0 1.8
2 1/2 x 1 1/4 65 x 32	2.875/3.000 x 1.660 73.0/76.1 x 42.2	300 20	2.00 51	3.11 79	1.89 48	5.75 146	3.22 82	1/2 x 3 M12 x 75	3.7 1.7
2 1/2 x 1 1/2 65 x 40	2.875/3.000 x 1.900 73.0/76.1 x 48.3	300 20	2.00 51	3.11 79	1.89 48	5.75 146	3.22 82	1/2 x 3 M12 x 75	4.2 1.9
3 x 1 80 x 25	3.500 x 1.315 88.9 x 33.4	300 20	1.50 38	3.30 84	2.20 56	6.30 160	2.91 74	1/2 x 3 M12 x 75	3.7 1.7
3 x 1 1/4 80 x 32	3.500 x 1.660 88.9 x 42.2	300 20	2.00 51	3.50 89	2.20 56	6.30 160	3.46 88	1/2 x 3 M12 x 75	4.0 1.8
3 x 1 1/2 80 x 40	3.500 x 1.900 88.9 x 48.3	300 20	2.00 51	3.50 89	2.20 56	6.30 160	3.46 88	1/2 x 3 M12 x 75	4.2 1.9
3 x 2 80 x 50	3.500 x 2.375 88.9 x 60.3	300 20	2.50 64	3.58 91	2.20 56	6.30 160	3.98 101	1/2 x 3 M12 x 75	4.8 2.2
4 x 1 100 x 25	4.500 x 1.315 114.3 x 33.4	300 20	1.50 38	3.89 94	2.83 72	7.48 190	2.63 67	1/2 x 3 M12 x 75	4.4 2.0
4 x 1 1/4 100 x 32	4.500 x 1.660 114.3 x 42.2	300 20	2.00 51	3.89 99	2.83 72	7.48 190	3.35 85	1/2 x 3 M12 x 75	4.6 2.1
4 x 1 1/2 100 x 40	4.500 x 1.900 114.3 x 48.3	300 20	2.00 51	3.89 99	2.83 72	7.48 190	3.35 85	1/2 x 3 M12 x 75	4.8 2.2
4 x 2 100 x 50	4.500 x 2.375 114.3 x 60.3	300 20	2.50 64	4.13 105	2.83 72	7.48 190	3.98 101	1/2 x 3 M12 x 75	5.9 2.7
4 x 2 1/2 100 x 65	4.500 x 2.875 114.3 x 73.0	300 20	2.75 70	4.37 111	2.83 72	7.48 190	4.40 112	1/2 x 3 M12 x 75	6.6 3.0

**Model 7722 Mechanical Tee, Grooved-End Outlet**

Nominal Size Run x Branch	Pipe O.D.	Max. Working Pressure (CWP)*	Hole Dia. + +0.13, -0 / +3.2, -0	Dimensions				Bolt Size	Weight
				A	B	C	D		
in mm	in mm	PSI Bar	in mm	in mm	in mm	in mm	in mm	in mm	Lbs Kgs
100 x 76.1 mm	4.500 x 3.000 114.3 x 76.1	300 20	2.75 70	4.37 111	2.83 72	7.48 190	4.40 112	½ x 3 M12 x 75	6.6 3.0
4 x 3 100 x 80	4.500 x 3.500 114.3 x 88.9	300 20	3.50 89	4.40 112	2.83 72	7.48 190	5.35 136	⅝ x 3½ M16 x 90	11.4 5.2
5 x 2 125 x 50	5.500/5.563 x 2.375 139.7/141.3 x 60.3	300 20	2.50 64	4.88 124	3.39 86	9.29 236	4.00 102	⅝ x 3½ M16 x 90	9.2 4.2
5 x 2½ 125 x 65	5.563 x 2.875 141.3 x 73.0	300 20	2.75 70	5.00 127	3.39 86	9.29 236	4.65 118	⅝ x 3½ M16 x 90	9.5 4.2
139.7 mm x 76.1 mm	5.500 x 3.000 139.7 x 76.1	300 20	2.75 70	5.00 127	3.39 86	9.29 236	4.65 118	⅝ x 3½ M16 x 90	9.5 4.3
6 x 1¼ 150 x 32	6.500/6.625 x 1.660 165.1/168.3 x 42.2	300 20	2.00 51	5.00 127	3.86 98	10.08 256	3.66 93	⅝ x 5 5/16 M16 x 135	9.2 4.2
6 x 1½ 150 x 40	6.500/6.625 x 1.900 165.1/168.3 x 48.3	300 20	2.00 51	5.00 127	3.86 98	10.08 256	3.66 93	⅝ x 5 5/16 M16 x 135	9.5 4.3
6 x 2 150 x 50	6.500/6.625 x 2.375 165.1/168.3 x 60.3	300 20	2.50 64	5.20 132	3.86 98	10.08 256	3.98 101	⅝ x 5 5/16 M16 x 135	10.6 4.8
6 x 2½ 150 x 65	6.625 x 2.875 168.3 x 73.0	300 20	2.75 70	5.50 140	3.86 98	10.08 256	4.65 118	⅝ x 5 5/16 M16 x 135	12.1 5.5
150 x 76.1 mm	6.500 x 3.000 165.1 x 76.1	300 20	2.75 70	5.50 140	3.86 98	10.08 256	4.65 118	⅝ x 5 5/16 M16 x 135	12.1 5.5
6 x 3 150 x 80	6.500/6.625 x 3.500 165.1/168.3 x 88.9	300 20	3.50 89	5.50 140	3.86 98	10.08 256	5.39 137	⅝ x 5 5/16 M16 x 135	12.3 5.6
6 x 4 150 x 100	6.500/6.625 x 4.500 165.1/168.3 x 114.3	300 20	4.50 114	5.50 140	3.86 98	10.08 256	6.46 164	⅝ x 5 5/16 M16 x 135	15.4 7.0
8 x 2 200 x 50	8.625 x 2.375 219.1 x 60.3	300 20	2.75 70	6.54 166	4.72 120	12.87 327	3.89 104	¾ x 4¾ M20 x 120	12.8 5.8
8 x 2½ 200 x 65	8.625 x 2.875 219.1 x 73.0	300 20	2.75 70	6.54 166	4.72 120	12.87 327	4.09 104	¾ x 4¾ M20 x 120	13.2 6.0
200 x 76.1 mm	8.625 x 3.000 219.1 x 76.1	300 20	2.75 70	6.54 166	4.72 120	12.87 327	4.09 104	¾ x 4¾ M20 x 120	13.2 6.0
8 x 3 200 x 80	8.625 x 3.500 219.1 x 88.9	300 20	3.50 89	6.54 166	4.72 120	12.87 327	5.04 128	¾ x 4¾ M20 x 120	15.8 7.2
8 x 4 200 x 100	8.625 x 4.500 219.1 x 114.3	300 20	4.50 114	6.54 166	4.72 120	12.87 327	6.46 164	¾ x 4¾ M20 x 120	16.5 7.5

1. † Hole diameters listed are suggested hole diameters.
2. \*Working pressure is based on roll- or cut-grooved standard wall 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:**

Orange color painted or red RAL3000 color painted.

- Hot dip galvanized (Option).
- Epoxy coated in red RAL3000 or other colors (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 unless couplings or components are accessible for frequent gasket replacement.

- Grade “T” Nitrile** (Color code: Orange stripe) (Option) Recommended for petroleum products, vegetable oils, mineral oils and air with oil vapors. Temperature range:

-20°F to +180°F (-29°C to +82°C). Also good for water services under +150°F (+66°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” Fluoro-Elastomer, Grade “L” Silicone, etc. are also available upon request.

• **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.

## Flow Data – C<sub>v</sub> Values

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

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

Where: C<sub>v</sub> = Flow coefficient  
 Q = Flow (GPM)  
 ΔP = Pressure drop (psi)

Model 7722 Mechanical Tee, Grooved-end Outlet C <sub>v</sub> Values			
Nominal Size in / mm	C <sub>v</sub> Values	Nominal Size in / mm	C <sub>v</sub> Values
1 25	25	2½ 65	125
1¼ 32	45	3 80	200
1½ 40	60	4 100	350
2 50	100		

## Flow Characteristics

Model 7722 Mechanical Tee, Groove-end Outlet Flow Characteristics			
Nominal Size in / mm	Equivalent Length feet/meter of pipe	Nominal Size in / mm	Equivalent Length feet/meter of pipe
1¼ 32	5.5 1.7	2½ 65	11.0 3.4
1½ 40	7.0 2.1	3 80	13.5 4.1
2 50	9.0 2.7	4 100	20.0 6.1

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.
- **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 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.