SHURJOINT®
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7722 F-02

MODEL 7722 MECHANICAL TEE, GROOVED-END OUTLET

The Model 7722 Mechanical Tee when mounted on 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. The Model 7722 Mechanical Tee is rated to 20 bar (300 psi) working pressure. 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.

MODEL 7722 MATERIAL SPECIFICATIONS

• Housing:

Ductile Iron to ASTM A536, Gr. 65-45-12, Min. tensile strength 448 MPa (65,000 psi).

• 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 +230ºF (+110ºC). 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: -30ºF (-34ºC) to +230ºF (+110ºC).

- ☐ Grade "T" Nitrile (Color code: Orange stripe) (Option) Recommended for petroleum products, vegetable oils, mineral oils and air with oil vapors. Temperature range: -29 ºC to +82 ºC (-20 ºF to +180 ºF). Also good for water services under +66 ºC (+150 ºF).
  Do not use for HOT WATER above +66 ºC (+150 ºF) or HOT DRY AIR above +60 ºC (+140 ºF)
- ☐ 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 758 MPa (110,000psi), Zinc electroplated, with heavy-duty hexagonal nuts to ASTM A563.

Job Name:	System No.	Location:
Contractor:	Approved:	Date:
Engineer:	Approved:	Date:

__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.

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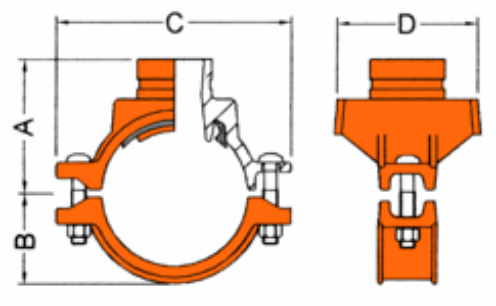

Model 7722 Mechanical Tee, Grooved-End Outlet

Nominal Size Run x Branch	Pipe OD	Hole Dia. +3.2, -0 / +0.13, -0	Dimensions A	B	C	D	Bolt Size	Weight
mm *in*	mm *in*	mm *in*	mm *in*	mm *in*	mm *in*	mm *in*	mm *in*	Kgs *Lbs*
50 x 25 *2 x 1*	60.3 x 33.4 *2.375 x 1.315*	38 *1.50*	68 *2.68*	40 *1.57*	128 *5.04*	73 *2.87*	M10 x 55 *3/8 x 2-1/8*	1.0 *2.2*
50 x 32 *2 x 1.25*	60.3 x 42.2 *2.375 x 1.660*	[45] *[1.75]*	71 *2.80*	40 *1.57*	128 *5.04*	82 *3.22*	M10 x 55 *3/8 x 2-1/8*	1.0 *2.2*
50 x 40 *2 x 1.5*	60.3 x 48.3 *2.375 x 1.900*	[45] *[1.75]*	71 *2.80*	40 *1.57*	128 *5.04*	82 *3.22*	M10 x 55 *3/8 x 2-1/8*	1.2 *2.6*
65 x 25 *2.5 x 1*	73.0/76.1 x 33.4 *2.875/3.000 x1.315*	38 *1.50*	75 *2.95*	48 *1.89*	146 *5.75*	73 *2.87*	M12 x 75 *1/2 x 3*	1.8 *4.0*
65 x 32 *2.5 x 1.25*	73.0/76.1 x 42.2 *2.875/3.000 x 1.660*	51 *2.00*	79 *3.11*	48 *1.89*	146 *5.75*	82 *3.22*	M12 x 75 *1/2 x 3*	1.7 *3.7*
65 x 40 *2.5 x 1.5*	73.0/76.1 x 48.3 *2.875/3.000 x 1.900*	51 *2.00*	79 *3.11*	48 *1.89*	146 *5.75*	82 *3.22*	M12 x 75 *1/2 x 3*	1.9 *4.2*
80 x 25 *3 x 1*	88.9 x 33.4 *3.500 x 1.315*	38 *1.50*	81 *3.19*	56 *2.20*	160 *6.30*	67 *2.63*	M12 x 75 *1/2 x 3*	1.7 *3.7*
80 x 32 *3 x 1.25*	88.9 x 42.2 *3.500 x 1.660*	51 *2.00*	89 *3.50*	56 *2.20*	160 *6.30*	88 *3.46*	M12 x 75 *1/2 x 3*	1.8 *4.0*
80 x 40 *3 x 1.5*	88.9 x 48.3 *3.500 x 1.900*	51 *2.00*	89 *3.50*	56 *2.20*	160 *6.30*	88 *3.46*	M12 x 75 *1/2 x 3*	1.9 *4.2*
80 x 50 *3 x 2*	88.9 x 60.3 *3.500 x 2.375*	64 *2.50*	91 *3.58*	56 *2.20*	160 *6.30*	101 *3.98*	M12 x 75 *1/2 x 3*	2.2 *4.8*
100 x 25 *4 x 1*	114.3 x 33.4 *4.500 x 1.315*	38 *1.50*	94 *3.89*	72 *2.83*	190 *7.48*	67 *2.63*	M12 x 75 *1/2 x 3*	2.0 *4.4*
100 x 32 *4 x 1.25*	114.3 x 42.2 *4.500 x 1,660*	51 *2.00*	99 *3.89*	72 *2.83*	190 *7.48*	85 *3.35*	M12 x 75 *1/2 x 3*	2.1 *4.6*
100 x 40 *4 x 1.5*	114.3 x 48.3 *4.500 x 1.900*	51 *2.00*	99 *3.89*	72 *2.83*	190 *7.48*	85 *3.35*	M12 x 75 *1/2 x 3*	2.2 *4.8*
100 x 50 *4 x 2*	114.3 x 60.3 *4.500 x 2.375*	64 *2.50*	105 *4.13*	72 *2.83*	190 *7.48*	101 *3.98*	M12 x 75 *1/2 x 3*	2.7 *5.9*
100 x 65 *4 x 2.5*	114.3 x 73.0 *4.500 x 2.875*	70 *2.75*	111 *4.37*	72 *2.83*	190 *7.48*	112 *4.40*	M12 x 75 *1/2 x 3*	3.0 *6.6*
100 x 65 *4 x 2.5*	114.3 x 76.1 *4.500 x 3.000*	70 *2.75*	111 *4.37*	72 *2.83*	190 *7.48*	112 *4.40*	M12 x 75 *1/2 x 3*	3.0 *6.6*
100 x 80 *4 x 3*	114.3 x 88.9 *4.500 x 3.500*	89 *3.50*	112 *4.40*	72 *2.83*	190 *7.48*	136 *5.35*	M16 x 90 *5/8 x 3-1/2*	5.2 *11.4*
125 x 50 *5 x 2*	139.7/141.3 x 60.3 *5.500/5.563 x2.375*	64 *2.50*	124 *4.88*	86 *3.39*	236 *9.29*	102 *4.00*	M16 x 90 *5/8 x 3-1/2*	4.2 *9.2*
125 x 65 *5 x 2.5*	141.3 x 73.0 *5.563 x 2.875*	70 *2.75*	127 *5.00*	86 *3.39*	236 *9.29*	118 *4.65*	M16 x 90 *5/8 x 3-1/2*	4.2 *9.5*
125 x 65 *5 x 2.5*	139.7 x 76.1 *5.500 x 3.000*	70 *2.75*	127 *5.00*	86 *3.39*	236 *9.29*	118 *4.65*	M16 x 90 *5/8 x 3-1/2*	4.3 *9.5*
150 x 32 *6 x 1.25*	165.1/168.3 x 42.2 *6.500/6.625 x 1.660*	51 *2.00*	127 *5.00*	98 *3.86*	256 *10.08*	93 *3.66*	M16 x 135 *5/8 x 5-5/16*	4.2 *9.2*
150 x 40 *6 x 1.5*	165.1/168.3 x 48.3 *6.500/6.625 x 1.900*	51 *2.00*	127 *5.00*	98 *3.86*	256 *10.08*	93 *3.66*	M16 x 135 *5/8 x 5-5/16*	4.3 *9.5*

Model 7722 Mechanical Tee, Grooved-End Outlet

Nominal Size Run x Branch	Pipe OD	Hole Dia. +3.2, -0 / +0.13, -0	Dimensions A	B	C	D	Bolt Size	Weight
mm *in*	mm *in*	mm *in*	mm *in*	mm *in*	mm *in*	mm *in*	mm *in*	Kgs *Lbs*
150 x 50 *6 x 2*	165.1/168.3 x 60.3 *6.500/6.625 x 2.375*	64 *2.50*	132 *5.20*	98 *3.86*	256 *10.08*	101 *3.98*	M16 x 135 *5/8 x 5-5/16*	4.8 *10.6*
150 x 65 *6 x 2.5*	168.3 x 73.0 *6.625 x 2.875*	70 *2.75*	140 *5.50*	98 *3.86*	256 *10.08*	118 *4.65*	M16 x 135 *5/8 x 5-5/16*	5.5 *12.1*
150 x 65 *6 x 2.5*	165.1 x 76.1 *6.500 x 3.000*	70 *2.75*	140 *5.50*	98 *3.86*	256 *10.08*	118 *4.65*	M16 x 135 *5/8 x 5-5/16*	5.5 *12.1*
150 x 80 *6 x 3*	165.1/168.3 x 88.9 *6.500/6.625 x 3.500*	89 *3.50*	140 *5.50*	98 *3.86*	256 *10.08*	137 *5.39*	M16 x 135 *5/8 x 5-5/16*	5.6 *12.3*
150 x 100 *6 x 4*	165.1/168.3 x 114.3 *6.500/6.625 x 4.500*	114 *4.50*	140 *5.50*	98 *3.86*	256 *10.08*	164 *6.46*	M16 x 135 *5/8 x 5-5/16*	7.0 *15.4*
200 x 50 *8 x 2*	219.1 x 60.3 *8.625 x 2.375*	[70] *[2.75]*	166 *6.54*	120 *4.72*	327 *12.87*	104 *3.89*	M20 x 120 *3/4 x 4-3/4*	5.8 *12.8*
200 x 65 *8 x 2.5*	219.1 x 73.0 *8.625 x 2.875*	70 *2.75*	166 *6.54*	120 *4.72*	327 *12.87*	104 *4.09*	M20 x 120 *3/4 x 4-3/4*	6.0 *13.2*
200 x 65 *8 x 2.5*	219.1 x 76.1 *8.625 x 3.000*	70 *2.75*	166 *6.54*	120 *4.72*	327 *12.87*	104 *4.09*	M20 x 120 *3/4 x 4-3/4*	6.0 *13.2*
200 x 80 *8 x 3*	219.1 x 88.9 *8.625 x 3.500*	89 *3.50*	166 *6.54*	120 *4.72*	327 *12.87*	128 *5.04*	M20 x 120 *3/4 x 4-3/4*	7.2 *15.8*
200 x 100 *8 x 4*	219.1 x 114.3 *8.625 x 4.500*	114 *4.50*	166 *6.54*	120 *4.72*	327 *12.87*	164 *6.46*	M20 x 120 *3/4 x 4-3/4*	7.5 *16.5*

Special caution is required to some exceptional hole sizes shown in [ ]

Flow Data – C_v Values

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

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

Where: C_v = Flow coefficient
Q = Flow (GPM)
ΔP = Pressure drop (psi)

Model #7722 Mechanical Tee,Grooved-end Outlet Cv Values

Nominal Size mm / in	Cv Values	Nominal Size mm / in	Cv Values
15 *1/2*		50 *2*	100
20 *3/4*		65 *2-1/2*	125
25 *1*	25	80 *3*	200
32 *1-1/4*	45	100 *4*	350
40 *1-1/2*	60		

Flow Characteristics

Model #7722 Mechanical Tee, Groove-end Outlet Flow Characteristics

Nominal Size mm / in	Equivalent Length meter/feet of pipe	Nominal Size mm / in	Equivalent Length meter/feet of pipe
15 *1/2*		50 *2*	2.7 *9.0*
20 *3/4*		65 *2-1/2*	3.4 *11.0*
25 *1*		80 *3*	4.1 *13.5*
32 *1-1/4*	1.7 *5.5*	100 *4*	6.1 *20.0*
40 *1-1/2*	2.1 *7.0*		

General Notes:

- Pressure ratings listed are CWP (cold water pressure) or maximum working pressure within the service temperature range of the gasket used in the coupling. This rating may occasionally differ from maximum working pressures listed and/or approved by cULus, and/or FM as testing conditions and test pipes differ. For additional information contact *Shurjoint.*.
- Maximum working pressures and end loads listed are total of internal and external pressures and loads based on Sch. 40 steel pipe with roll grooves to ANSI/AWWA C606-04 specifications. For information on other pipe schedules contact *Shurjoint.*
- For one time field test only the maximum joint working pressure may be increased 1-1/2 times the figures shown.
- Warning: Piping systems must always be depressurized and drained before attempting disassembly and or removal of any components.
- *Shurjoint* reserves the right to change specifications, designs and or standard equipment without notice and without incurring any obligations.