

Style 927 FireLock™ Mechanical-T Bolted Branch Outlet



WARNING

- Read and understand all instructions before attempting to install any Victaulic products.
- Always verify that the piping system has been completely depressurized and drained immediately prior to installation, removal, adjustment, or maintenance of any Victaulic products.
- Wear safety glasses, hardhat, and foot protection.

Failure to follow installation requirements and local and national codes and standards could compromise system integrity or cause system failure, resulting in death or serious personal injury and property damage.

PIPE PREPARATION REQUIREMENTS

| Nominal Outlet Size inches/ Actual mm | Hole Dimensions inches/mm | | Surface Preparation "A" Dimension inches/mm |
|---|---|---|---|
| | Minimum Hole Diameter/ Hole Saw Size | Maximum Hole Diameter/ Hole Saw Size | |
| All ½ inch/ 21.3 mm Outlets | 1 ½ 38 | 1 ⅝ 41 | 3 ½ 89 |
| All ¾ inch/ 26.9 mm Outlets | 1 ½ 38 | 1 ⅝ 41 | 3 ½ 89 |
| All 1 inch/ 33.7 mm Outlets | 1 ½ 38 | 1 ⅝ 41 | 3 ½ 89 |
| All 1 ¼ inch/ 42.4 mm Outlets | 1 ¾ 44 | 1 ⅞ 48 | 4 102 |
| All 1 ½ inch/ 48.3 mm Outlets | 2† 51 | 2 ⅞ 54 | 4 102 |
| All 2 inch/ 60.3 mm Outlets | 2 ½ 64 | 2 ⅞ 67 | 4 ½ 114 |
| All 76.1 mm Outlets | 2 ¾ 70 | 2 ⅞ 73 | 5 ½ 140 |
| All 3 inch/ 88.9 mm Outlets | 3 ½ 89 | 3 ⅞ 92 | 5 ½ 140 |
| All 4 inch/ 114.3 mm Outlets | 4 ½ 114 | 4 ⅞ 118 | 6 ½ 165 |

The Style 927 Firelock™ Mechanical-T Bolted Branch Outlet may be specified to provide a connection on a pipe. The following procedures are designed as a guide for proper assembly of the Victaulic Style 927 Firelock™ Mechanical-T Bolted Branch Outlet. Refer to Victaulic publication 10.55 for additional information, which can be downloaded at victaulic.com.

† 2 x 1 ½-inch/60.3 x 48.3-mm Style 927 products require a 1 ¾-inch/44-mm hole.

PIPE PREPARATION

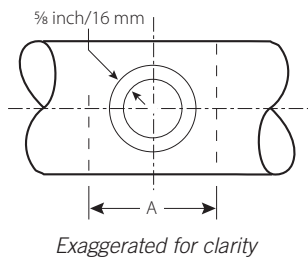
Proper preparation of the hole is essential for sealing and performance. Verify that the correct hole saw size is being used. Refer to the "Pipe Preparation Requirements" table that follows for the proper hole saw size.

Holes SHALL be drilled on the centerline of the pipe. Holes for Mechanical-T Cross assemblies shall be cut on the centerline of the pipe at predetermined locations for each branch and shall be in line within ⅙ inch/1.6 mm of each other.

Ensure that a ⅝-inch/16-mm area around the hole is generally free from indentations, projections, weld seam anomalies, and roll marks that could affect gasket sealing (refer to the sketch below). Remove any burrs and sharp or rough edges from the hole. Burrs and sharp edges might affect assembly, proper seating of the locating collar, flow from the outlet, or gasket sealing.

The pipe around the entire circumference, within the "A" dimension shown in the sketch below, shall be generally free from indentations, projections, weld seam anomalies, and roll marks that might prevent the housing from seating fully on the pipe. All oil, grease, loose paint, dirt, and cutting particles shall be removed. Refer to the "Pipe Preparation Requirements" table that follows for the "A" dimension.

DO NOT USE STYLE 927 MECHANICAL-T BOLTED BRANCH OUTLETS ON PVC PLASTIC PIPE.



INSTALLATION



1. CHECK GASKET AND LUBRICATE: Inspect the sealing surface of the gasket to verify that no debris is present. It is not necessary to remove the gasket from the housing. Lubricate the exposed sealing surface of the gasket with a thin coat of Victaulic Lubricant or silicone lubricant.



2. ASSEMBLE HOUSINGS: Insert a bolt into the two housings. Thread a nut loosely onto the end of the bolt.

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3a. INSTALL HOUSINGS: Rotate the lower housing so that it is positioned approximately 90° to the upper (outlet) housing, as shown above. Place the upper (outlet) housing onto the face of the pipe in line with the outlet hole cut into the pipe. Rotate the lower housing around the pipe.



3b. Verify that the locating collar engages the outlet hole properly. Check this engagement by rocking the upper (outlet) housing in the hole.



4. INSTALL REMAINING BOLT/ NUT: Insert the remaining bolt. Thread a nut onto the bolt finger-tight. **NOTE:** Verify that the oval neck of each bolt seats properly in the bolt hole.

⚠ WARNING

- Tighten the nuts evenly by alternating sides.
- Nuts shall be torqued to the specifications listed below.
- DO NOT exceed the specified torque on the nuts. Increased bolt torque will not improve sealing and may cause product failure.

Failure to torque nuts properly could cause product failure, resulting in death or serious personal injury and/or property damage.



5. TIGHTEN NUTS: Verify that the locating collar is still positioned properly in the outlet hole. Tighten the nuts evenly by alternating sides until the upper (outlet) housing contacts the pipe completely. Torque ½-inch nuts to 81–100 ft-lbs/110–135 N•m and ⅝-inch nuts to 100–129 ft-lbs/135–175 N•m with even

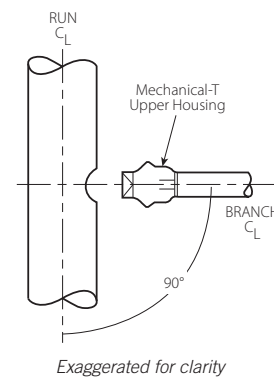
gaps between the bolt pads. If specified torque is exceeded, remove and replace bolts.

NOTICE

- For grooved outlets, refer to the applicable coupling installation instructions.
- For threaded outlets, complete the assembly using standard threading practices.

BRANCH CONNECTIONS

If a branch connection is made to the upper housing before the Mechanical-T is installed on the pipe, verify that the branch connection is 90° to the pipe run before completing the tightening sequence of the Mechanical-T assembly.



- When the Mechanical-T is used as a transition piece between two runs, it shall be assembled onto the runs before the branch connection is made.
- Victaulic female threaded products are designed to accommodate standard male pipe threads only. Use of male threaded products with special features, such as probes, dry pendent sprinkler heads, etc., shall be verified as suitable for use with this Victaulic product. Failure to verify suitability in advance may result in assembly problems or leakage.

CROSS CONNECTIONS



- Cross connections can be made by using two upper housings of the same size. Different branch sizes are allowable.
- Install the cross connection in accordance with the instructions in this section. Verify that the locating collar on each side is positioned securely inside the hole. Tighten the nuts evenly by alternating sides until the gaps are even at both bolt pads. Torque ½-inch nuts to 81–100 ft-lbs/110–135 N•m

and ⅝-inch nuts to 100–129 ft-lbs/135–175 N•m. DO NOT exceed the specified torque on the nuts.

HELPFUL INFORMATION

| Nominal Pipe Outside Diameter | Bolt/Nut Size inches/Metric | Socket Size inches/mm |
|-------------------------------|-----------------------------|-----------------------|
| 2 – 4 inches | ½ M12 | 7/8 18 |
| 139.7 mm – 8 inches | ⅝ M16 | 1 1/16 24 |