



# Fire Department Connections Installation Instructions

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## **Intended Use**

Fire department connections provide a means of introducing water under pressure into a building's manual standpipe, automatic sprinkler, and/or fire pump test system. They are available from Dixon® in inlet pressure ratings from **175 PSI** up to **600 PSI**. Multiple inlet fire department connections employ a swing-type clapper as a check valve so that water can be pumped into the system under pressure without losing water from any of the inlets that are not connected. This allows hoses supplying water to be switched without interrupting the supply.

## **Before Installation**

Inspect the fire department connection for any damage. Pay particular attention to the threads, and ensure that the clapper is freely moving and seating surface is free from marring.

Consult local fire department and building code regulations regarding installation height, orientation, signage, and clearance around the installation.

## **NPT Installation**

1. Use a sealant approved by local authority having jurisdiction (AHJ).
2. Begin by tightening the fire department connection onto the pipe until it can no longer be rotated by hand. Wherever possible, use a pipe or chain wrench large enough to encompass the body of the fire department connection. Ensure that none of the surfaces of the inlet connections or swivels installed are being engaged by the wrench during tightening. It may be necessary to insert a piece of wood or other soft material into one of the inlets to complete the tightening process. Should this be the case take care to ensure that:
  - A. The material being used is strong enough to bear against during tightening.
  - B. The material is soft enough to avoid marring the threads on the inlet connections. Hard wood or UHMW-PE rods are acceptable materials. Do not use any metal, coated or otherwise.
  - C. The diameter is large enough to fit snugly into the inlet orifice of the fire department connection.
  - D. The bar is positioned so as not to bear against the internal pivots of the fire department connection.
  - E. On multiple clapper units, use the left hand inlet for tightening. On single clapper units, use the right hand inlet.
  - F. Switch to the opposite inlet if the fire department connection is to be removed for any reason.
3. Confirm that installed NPT pipe/nipple does not interfere with moving clappers.

## **Grooved Thread Installation**

1. Inspect the grooved thread gasket to ensure it is free from any nicks or scuffing on the sealing surfaces.
2. If permitted by the AHJ, lubricate with O-ring grease or other silicone lubricant prior to installation.
3. Slide the gasket onto the prepared pipe until it is clear of the end.
4. With the fire department connection supported so that its outlet is diametrically aligned and tightly against the end of the pipe, slide the gasket onto the outlet of the fire department connection.
5. Confirm that the gasket is between the two grooves.
6. Install the clamp over the gasket aligning the clamp so that the clamp shoulders are fully seated in the grooves.
8. Tighten the clamping bolts according to the clamp manufacturer's specifications. Ensure that the gap is within .030" on either side of the clamp.
9. Install identification plaques or other signage as may be required by the AHJ and/or National Fire Protection Association (NFPA).

NOTE: Refer to Victaulic (R) I-100 field installation handbook for more details.

## **Fire Department Connections Installation Instructions Cont.**

### **Testing**

After installation, the system shall be tested as required by NFPA 25, and according to the requirements of the local authority having jurisdiction (AHJ).

### **Operation**

1. Remove plug/cap and or any visible debris from the connection inlet(s).
2. Connect any unpressurized hose to the inlet(s) on the fire department connection. If required, all inlets can be connected to a water source at the same time.
3. Once the hose(s) is connected, water pressure can be applied. Clappered fire department connections act as check valves for the system allowing hose(s) to be disconnected and connected during operation.
4. Discharge and remove all pressurized lines after operation.
5. Inspect threads and structure of the fire department connection. Also check for leftover debris.
6. Reinstall any caps/plugs on the inlet connections.
7. Notify local authority having jurisdiction if there is any damage or malfunction in the connection and review NFPA 25 or contact Dixon for steps to repair or replace the connection.

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