



Fire Department Connections Installation Instructions

Intended Use

Fire department connections provide a means of introducing water under pressure into a building's standpipe and sprinkler systems, or for a pump test. They are available from Dixon in inlet pressure ratings from **175 PSI** up to **600 PSI**. Multiple inlet fire department connections of this type 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 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 rod 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.

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. Place and support the fire department connection flush against the end of the pipe.
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. Making sure that the gasket is between the two grooves.
6. Install the clamp over the gasket.
7. Align the clamp so that the outer ends are seating 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).

Testing

After installation, the system shall be tested as required by NFPA 13-28 and NFPA 14-11, and according to the requirements of the AHJ.

Operation

1. Each inlet serves as an independent input to the building's fire fighting systems.
2. To introduce water into the fire department connection, connect any un-pressurized hose to any of the inlets on the fire department connection. If required, all inlets can be connected to a water source at the same time.
3. Once the supply hoses are connected, water pressure can be applied. Note, any higher pressure supplies, within the system, will keep the clappers closed of any lower pressure inlets. These clappers will open once enough pressure has built up behind them to open.
4. While in operation, any of the inlet hoses can be safely disconnected, either to connect a hose from a new supply or to cease supplying water to that side. To connect a new supply hose, hook an unpressurized hose to any free inlet, then pressurize the hose.
5. Upon ceasing fire fighting or testing operations, inspect the interior of the fire department connection for debris by pushing aside the clappers.
6. Re-install any plugs on the inlet connections.

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