

Model F105

Pressure Restricting Fire Hose Valve
(1 1/2" & 2 1/2")



□ Installation □ Testing □ Maintenance Instructions

INSTALLATION INSTRUCTIONS

Application

Zurn Model F105 valves are flow-adjustable to provide a range of the outlet pressures. The valves are designed and listed to operate at a maximum pressure of 175 PSIG.

VALVE ADJUSTMENT SETS DOWNSTREAM WATER PRESSURE UNDER (RESIDUAL) FLOWING CONDITIONS ONLY.

Installation

1. Pipe unions or rubber-gasketed fittings are to be installed immediately upstream and downstream of the valve to permit easy replacement.
2. Connect the valve to the piping.
3. Close the valve hand-tight.
4. Select setting number from proper Valve Pressure Adjustment Setting Curve.
5. Loosen set screw in collar.
6. Rotate indicator cap until top collar reaches selected setting number. See Figure 1.
7. Tighten set screw in collar. Valve is now set.

Determining Proper Outlet Pressure

Consult authorities having jurisdiction to confirm that the outlet pressures and flow rates meet requirements. NFPA 14 provides standards to ensure installation of fire hose valves will deliver adequate and reliable water supplies in a fire emergency.

In accordance with NFPA 14:

- Valves must provide minimum pressures for minimum flows based on valve sizes.
- Standpipe systems shall be designed to provide a required minimum water flow rate for a minimum residual pressure at the outlet of the hydraulically most remote hose station.

NFPA 14 Minimum Flow and Pressure Requirements

Size	Minimum Pressure Flow Rate (GPM)	Remote Hose Station Minimum Pressure (PSI)
1 1/2"	100	65
2 1/2"	250	100

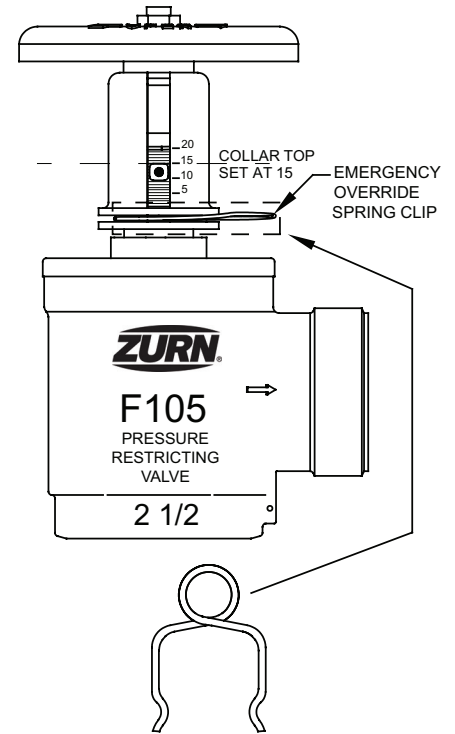


Figure 1. Pressure Adjustment

Note:

There will be a pressure drop due to friction between the outlet and the nozzle. As a result, some fire hose nozzles may not operate properly when valve outlet pressure is set at the 100 PSI minimum authorized by NFPA14. Consult fire authorities concerning pressure needed by their equipment. The amount of the drop must be calculated by qualified personnel to ensure that the nozzle receives water pressure sufficient to its design. To determine the pressures at the hose nozzle, follow hydraulic calculations provided in the NFPA Fire Protection Handbook.

WARRANTY: ZURN WILKINS Valves are guaranteed against defects of material or workmanship when used for the services recommended. If in any recommended service, a defect develops due to material or workmanship, and the device is returned, freight prepaid, to ZURN WILKINS within 12 months from date of purchase, it will be repaired or replaced free of charge. ZURN WILKINS' liability shall be limited to our agreement to repair or replace the valve only.

WARNING: This product is NOT Lead Free in accordance with U.S. Federal Law and is illegal in the U.S. for use in potable services or to install in water systems anticipated for human consumption.

⚠ **WARNING:** Cancer and Reproductive Harm - www.P65Warnings.ca.gov
⚠ **ADVERTENCIA:** Cáncer y daño reproductivo - www.P65Warnings.ca.gov
⚠ **AVERTISSEMENT:** Cancer et néfastes sur la reproduction - www.P65Warnings.ca.gov

Maintenance and Testing Procedures

Maintenance and Testing

Maintenance and testing shall comply with NFPA 25.

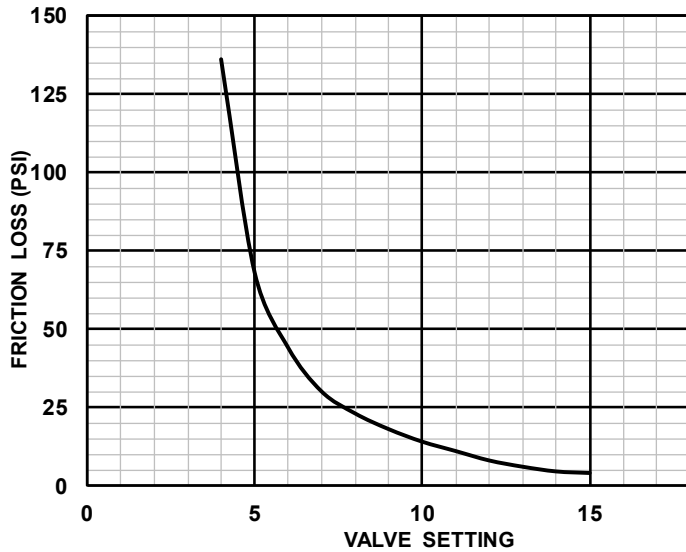
1. In the event the valve leaks, open the test valve to flush it.
2. Valves should be inspected for damage or corrosion annually.
3. Valves are not designed to accept replacement parts.
4. Drain the system every two to three years. While the system is drained, open all valves fully and apply lubricant to the valve stems. Valve seats should be inspected for debris.
5. Operate valves by hand, never using a torque bar or other device to exert pressure.
6. If a valve fails to perform as intended, it must be replaced.

Valve Pressure Adjustment Settings Curves

Curves indicate pressure at the outlet of the valve

Pressure Restricting Fire Hose Valve

FRICION LOSS AT 100 GPM
MODEL F105 1 1/2"



FRICION LOSS AT 250 GPM
MODEL F105 2 1/2"

