



Wilson and Cousins

Installation and Operation Instructions For Model IE25H-PRV 1 ½” valve series valve Model IE23-PRV 2 ½” valve series valve

Application

The IE25H-PRV series 1 ½” valve is designed for use as a pressure restricting valve in Class II fire protection standpipe systems and the IE23-PRV series 2 ½” valve is designed for the use as a pressure restricting valve in Class I and Class III fire protection systems. The IE25H-PRV and IE23-PRV series of valves are intended to be a shut off valve as well as a flow throttling valve to reduce excess standpipe pressures under flow conditions only to a maximum inlet pressure of 175 psi. These valves are listed by Underwriters Laboratories and Underwriters Laboratories Canada as Pressure reducing devices (VUTX and VUTXC). Requirements for the installation of pressure restricting valves in standpipe systems are given in Section 5-8 of NFPA 14, Standard for the installation of Standpipe and Hose Systems

The following maximum flow rate limits should be observed for the Model IE25H-PRV 1 ½” series valve

1 ½” valve	Maximum Flow	100 GPM
	Maximum Pressure	175 PSI

The following maximum flow rate limits should be observed for the Model IE23-PRV 2 ½” series valve

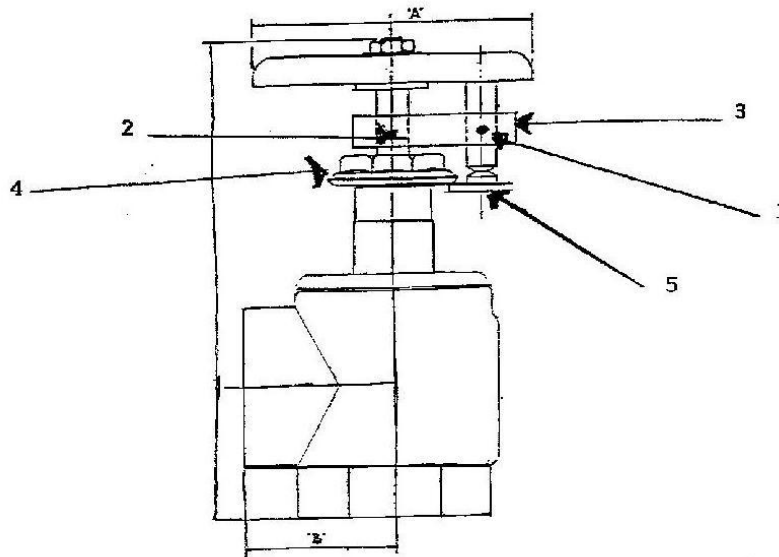
2 ½” valve	Maximum Flow	300 GPM
	Maximum Pressure	175 PSI

NFPA 14 requires that hose valve outlet pressure for Class I and Class III service be no greater than 175 PSI and no less than 100 PSI. When permitted by the authority having jurisdiction, pressures less than 100 PSI may be allowed, but in no case should the valve discharge pressure be less than 65 PSI. Class II hose valves must be limited to a maximum residual outlet pressure of 100 PSI, but the minimum outlet pressure shall not be less than 65 PSI



Construction and Principle of the IE25H-PRV series and IE23-PRV series Valves

The IE25H-PRV series and IE23-PRV series valves are similar to Standard Angle valves except the PRV series valves have a specially designed mechanism incorporated into the stem and bonnet to limit how far the valve can be opened. The valve design has no ability to reduce outlet pressure under no-flow conditions. If low supply pressure conditions should arise the adjustable gauge stem can be overridden by trained fire department personnel by breaking the base of the adjustable gauge with a spanner wrench or other tools available to the personnel.



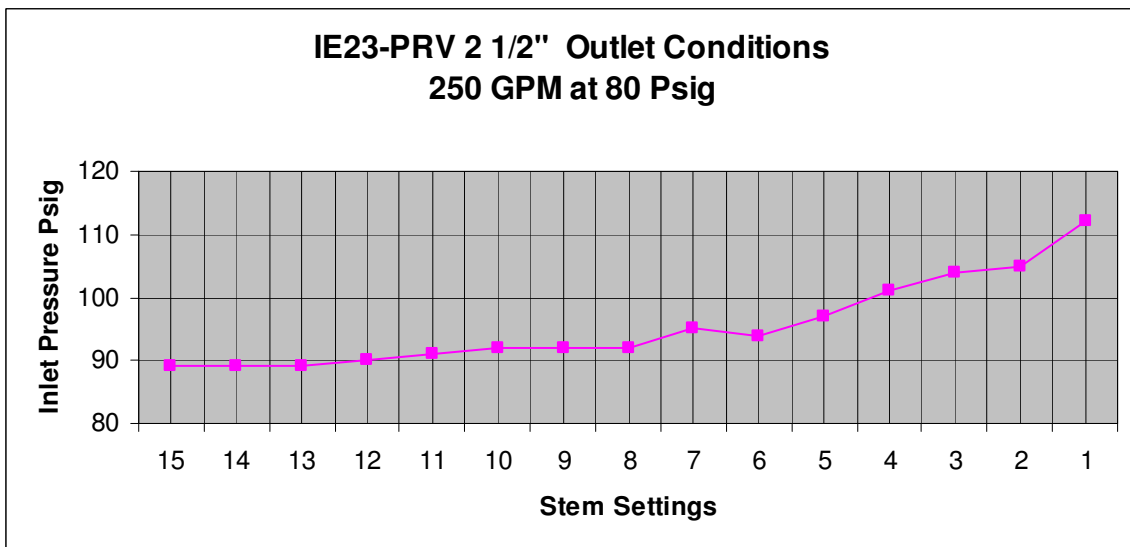
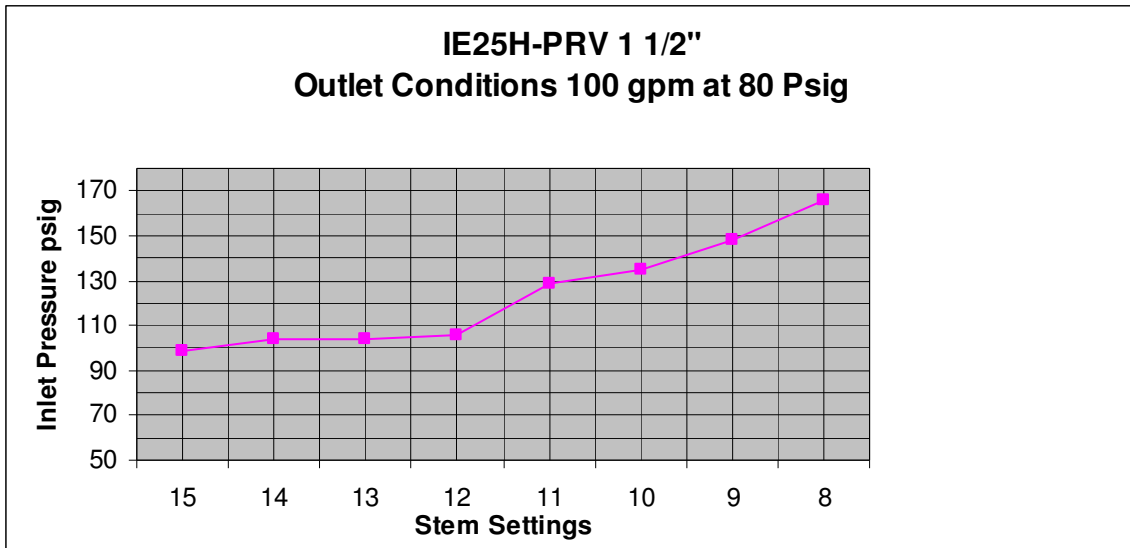
Instructions for Setting Valves

1. Make sure the valve is closed securely.
2. Back off 4 sets screw (#1 & #2)
3. Allow bottom side of the gauge stop sleeve (#3) to rest upon the packing nut (#4)
4. Insert the gauge stem (#5) into the gauge stop sleeve (#3) until the dash directly about the 0 setting is flush with the bottom side of the gauge sleeve (#3)*
5. Temporarily tighten one set screw (#1) which will the gauge stem (#5) in the gauge sleeve (#3)
6. Push upward on the bottom of the gauge stem(#5) unit it is stopped by the packing nut (#4)
7. Tighten the two set screws (#2) and put the hand wheel back on the valve.

*Hand-wheel may need to be removed

8. Loosen off the set screw (#1)
9. Determine inlet pressure
10. Consult the Wilson and Cousins Settings Chart to find the correct open position for the valve to produce a discharge pressure desired with the inlet pressure available
11. Keeping the valve closed set gauge stem (#5) to desired setting and tighten two set screws (#1)

Upon Completion of the system each pressure restricting hose valve shall be tested in accordance 8-5.5 of NFPA 14 to verify that the installation is correct and the valve(s) are operating properly, that the inlet and outlet pressures of the valve(s) are in accordance with the design.



Maintenance and Testing:

Maintenance and Testing should be done in accordance with NFPA 25, Standard for the inspection, testing and Maintenance of Water based Fire Protection Systems for a determination of the required test frequency and methods. The valve(s) should be inspected for damage or corrosion annually. Valves should be operated by hand, never using a torque bar or other device to exert pressure. Excess torque may cause damage to the seat, stem or other working parts. If a valve fails to perform as intended, the valve should be replaced

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