

# data sheet

## **ARGCO**



### **PRESSURE RESTRICTING ANGLE HOSE VALVE**



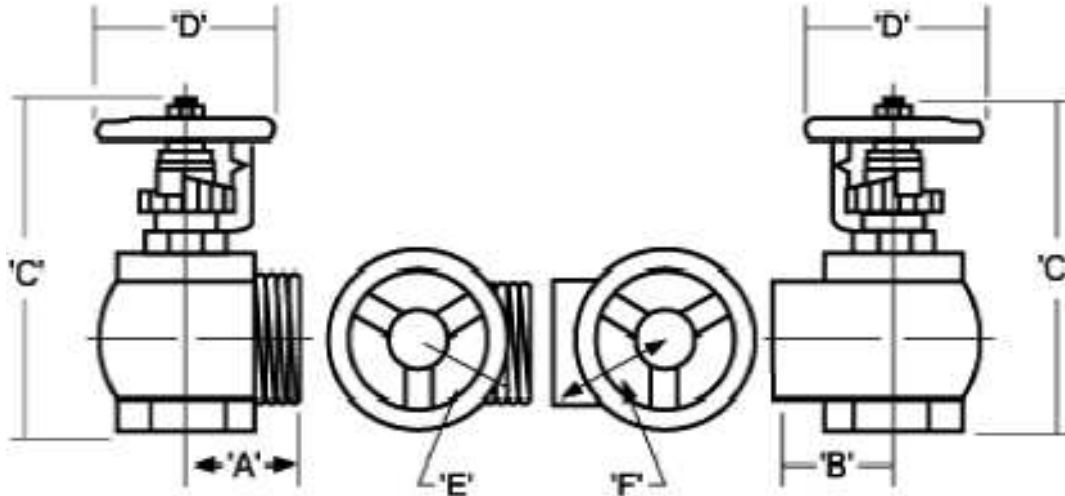
Combination angle hose and pressure restricting valve adjustable up to 300 lbs. Automatically drains and vents against hose deterioration. Locking pin device restricts full opening of valve. ULC, UL and FM Listed.

Finish : Cast Brass

Optional Finish : Chrome Plated, High Polished Chrome

**6520011:** 1-1/2"(F) NPT x 1-1/2"(M) NST

**6520012:** 2-1/2"(F) NPT x 2-1/2"(M) NST



#### **1-1/2" Valve**

A	2-7/32" (56 mm)
B	2-11/64" (55 mm)
C (Open)	6-13/16" (172 mm)
C (Closed)	7-27/32" (199 mm)
D	3-3/4" (95 mm)
E	2-7/16" (62 mm)
F	2-13/32" (61 mm)
Weight	4 lbs 12 oz. (2.15 kg)

#### **2-1/2" Valve**

A	3-7/32" (80 mm)
B	3-3/16" (81 mm)
C (Open)	9" (229 mm)
C (Closed)	10-5/8" (270 mm)
D	5" (127 mm)
E	3-19/32" (91 mm)
F	3-17/32" (89 mm)
Weight	12 lbs (5.45 kg)

The Pressure Restricting Angle Hose Valve 1-½” is designed for use in Class II fire protection standpipe systems and the Pressure Restricting Angle Hose Valve 2-½” is designed for use in Class I and Class III fire protection systems. These are intended to be shut off valves as well as a flow throttling valves 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.

### **1-½” Valve**

Maximum Flow: 100 GPM

Maximum Pressure: 175 PSI

### **2-½” Valve**

Maximum Flow: 300 GPM

Maximum Pressure: 175 PSI

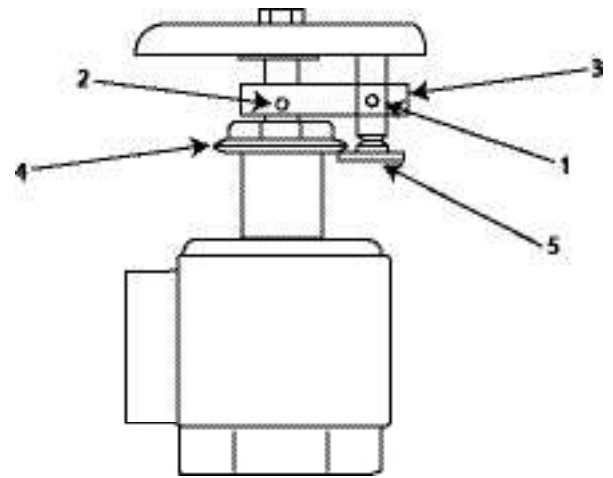
NFPA 14 requires that hose valve outlet pressure for Class I and Class III service be no greater than 175 PSI and no less than 100 PSI. When permitted by the authority having jurisdiction, pressures less than 100 PSI may be allowed, but in no case should the valve discharge pressure be less than 65 PSI. 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 Pressure Restricting Angle Valves**

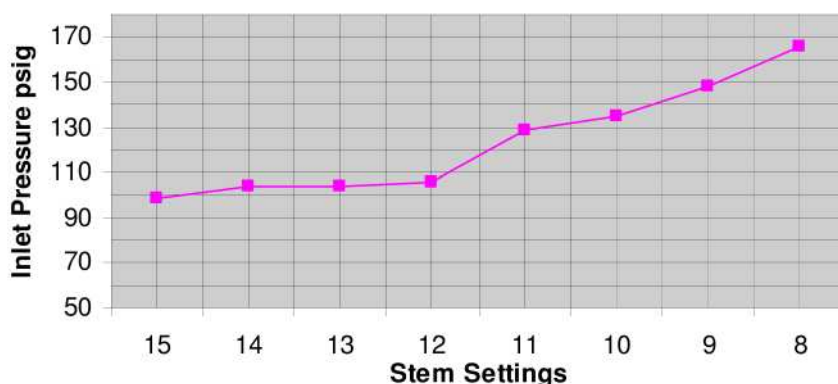
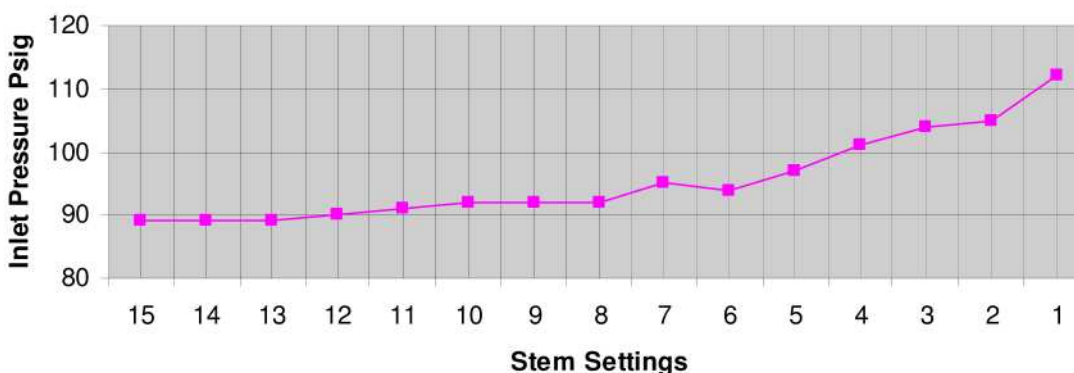
The 1-½” and 2-½” size valves are similar to Standard Angle valves except the PRV series valves have a specially designed mechanism incorporated into the stem and bonnet to limit how far the valve can be opened. The valve design has no ability to reduce outlet pressure under no-flow conditions. If low 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 the Pressure Restricting Angle Valve**

1. Assemble & close valve
2. Back off 4-set screws (#1, #2)
3. Allow bottom side of gauge stop sleeve (#3) to rest upon the packing nut (#4)
4. Insert the gauging stem (#5) into the gauge stop sleeve (#3) until the dash directly above the "0" setting is flush with the bottomsides of the gauge stop sleeve (#3)
5. Temporarily tighten one set screw (#1) which will hold the gauging stem (#5) in the gauge stop sleeve (#3)
6. Push upward on the bottom of the gauging stem (#5) until it is stopped by the packing nut (#4)
7. Tighten the two set screws (#2)
8. Back off the set screw (#1)
9. Determine inlet pressure
10. Consult graph below 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 gauging stem (#5) to setting desired 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.

**Pressure Restricting Angle Valve 1-1/2”  
Outlet Conditions 100 GPM at 80 PSI****Pressure Restricting Angle Valve 2-1/2”  
Outlet Conditions 250 GPM at 80 PSI****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