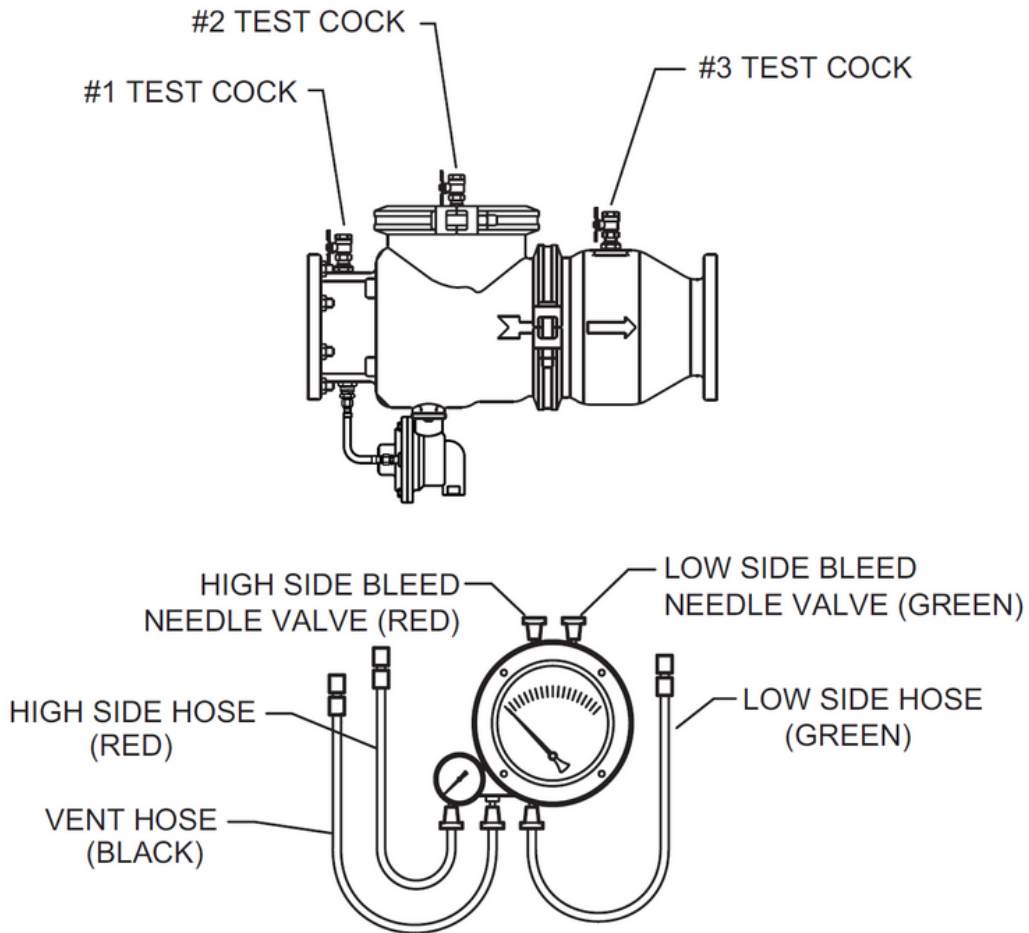


Backflow Valve Test Kit

Testing Procedures for 375L (65-250mm)



Please note:

All installation and testing procedures listed are intended as a guide only. Installation and testing should be in accordance with local standards and plumbing codes.

Test No.1 - Relief Valve Opening Point

Purpose:

Test #2 check valve for tightness against reverse flow.

Requirement:

The differential pressure relief valve must operate to maintain the zone between the two check valves at least 14KPa less than the supply pressure.

Procedure:

1. Flush water through test cocks #1, #2 (open #2 slowly), and #3 by opening and closing each test cock one at a time. to eliminate foreign material.
2. Install appropriate fittings to test cocks. Attach the hose from the high side of the differential pressure gauge to the #2 test cock then attach the hose from the low side of the gauge to the #3 test cock. Open test cock #3 slowly and then bleed all air from the hose and gauge by opening the low side bleed needle valve.
3. Maintain the low side bleed needle valve in the open position while test cock #2 is opened slowly. Open the high-side bleed needle valve to bleed all air from the hose and gauge. Close the high-side bleed needle valve after the gauge reading has reached the upper end of the scale.
4. Close the #2 shut-off valve. If the gauge reading drops to the low end of the gauge scale and the differential pressure relief valve discharges continuously, then the #1 check valve is leaking.
5. If this occurs, Tests #1, #2, and #3 cannot be completed. However, should the gauge reading remain above the differential pressure relief valve opening point, then observe the gauge reading. This is an apparent pressure drop across the #1 check valve.
6. Open the high side control needle valve approximately one turn, and then open the low side control needle valve no more than 1/4 turn to by-pass water from the #2 test cock to the #3 test cock. Observe the differential pressure reading as it slowly drops to the relief valve opening point. Record this opening point value when the first discharge of water is detected. Close the low side needle valve.

Test No.2 - Tightness of #2 Check valve

Requirement:

The #2 Check valve shall be tight against back pressure.

Procedure:

1. Maintain the #2 shut-off valve in the closed position (from Test #1). Vent all air through the vent hose by opening the vent needle valve. Close the vent needle valve only (the high side control needle valve is to remain open).
2. Attach the vent hose from the gauge to the #3 test cock, then open the #3 test cock. Bleed water from the zone by opening the low-side bleed needle valve on the gauge to re-establish the normal reduced pressure within the zone. Once the gauge reading reaches a value above the #1 check valve pressure drop, close the low side bleed needle valve.
3. Open the vent needle valve. If the indicated differential pressure remains steady then the #2 check valve is reported as “closed tight”. Go to test #3. If the differential pressure reading falls to the relief valve opening point, bleed water through the low side bleed needle valve until the gauge reading reaches a value above the #1 check valve pressure drop. If the gauge reading settles above the relief valve opening point, record the #2 check valve as “closed tight”, and proceed to test #3. If the differential pressure reading falls to the relief valve opening point again, then the #2 check valve is noted as “leaking”, and test #3 cannot be completed. If the differential pressure reading drops, but stabilizes above the relief valve opening point, the #2 check valve can still be reported as “closed tight”.

Note:

Due to disc compression, you may need to bleed off water through low side bleed needle valve several times before the gauge reading will settle above relief valve opening point.

Test No.3 - Tightness of #1 Check valve

Requirement:

The static pressure drop across the #1 check valve shall be greater than the relief valve opening point (test#1), and at least 35 KPa

Procedure:

1. With the vent hose connected to test cock #3 as in step 3 of Test #2, bleed water from the zone through the low side bleed needle valve on the gauge until the reading exceeds the #1 check valve pressure drop. Close the low side bleed needle valve. After the gauge reading settles, the steady state differential pressure reading indicated (reading is not falling on the gauge) is the actual static (i.e. no flow) pressure drop across check valve #1 and is to be recorded as such.
2. Close all test cocks, slowly open shutoff valve #2 and remove equipment.

Wilkins Test Cocks

Product Code	Size	Description
18-860	3mm x 6mm (1/8" x 1/4")	Wilkins Test Cock BFP
14-860	6mm x 6mm (1/4" x 1/4")	Wilkins Test Cock BFP

Deeco Backflow Test Kit

Product Code	Size	Description
BFTK	ALL	Wilkins backflow test kit with quick connect hoses in carry case