

WARRANTY INFORMATION

Conbraco Industries, Inc. warrants, to its initial purchaser only, that its products which are delivered to this initial purchaser will be of the kind described in the order or price list and will be free of defects in workmanship or material for a period of FIVE years from the date of delivery to you, our initial purchaser. This warranty applies to Apollo brand product with "Made in the USA" markings only.

Should any failure to conform to this warranty appear within **FIVE** years after the date of the initial delivery to our initial purchaser, Conbraco will, upon written notification thereof and substantiation that the goods have been stored, installed, maintained and operated in accordance with Conbraco's recommendations and standard industry practice, correct such defects by suitable repair or replacement at Conbraco's own expense.

This warranty does not cover:

- (i) Defects or damages resulting from the misuse of this product.
- (ii) Defects or damages from abnormal use, improper storage or corrosive environments, unauthorised modifications, unauthorised repair, neglect, rough handling, abuse, accident, alteration, improper installation, ingress of dirt, dust, acts of God.
- (iii) Breakage or damage to parts unless caused directly by defects in materials or workmanship.
- (iv) The cost of delivery or transportation of the product.
- (v) Normal wear and tear and reasonable abrasion.
- (vi) If the product has been modified or repaired by anyone other than a warranty service by All Valve Industries or if it is repaired using unauthorised spare parts
- (vii) The cost of new installation or complete removal of the product.
- (viii) Damage to the components due to improper installation or improper use of the product

All Valve Industries is not liable for any damages incurred while using this product or if this product becomes faulty during use.

Limitations of Liability

THIS WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OTHER WARRANTY OF QUALITY, WHETHER EXPRESSED OR IMPLIED, EXCEPT THE WARRANTY OF TITLE AND AGAINST PATENT INFRINGEMENT. Correction of non-conformities, in the manner and for the period of time provided above, shall constitute fulfilment of all liabilities of Conbraco to our initial purchaser, with respect to the goods, whether based on contract, negligence, strict tort or otherwise. It is the intention of Conbraco Industries, Inc. that no warranty of any kind, whether expressed or implied shall pass through our initial purchaser to any other person or corporation.

LIMITATION OF LIABILITY: Conbraco Industries, inc. SHALL NOT UNDER ANY CIRCUMSTANCES BE LIABLE FOR SPECIAL OR CONSEQUENTIAL DAMAGES SUCH AS, BUT NOT LIMITED TO, DAMAGES OR TO LOSS OF OTHER PROPERTY OR EQUIPMENT, LOSS OF PROFITS OR REVENUE, COST OF CAPITAL, COST OF PURCHASED OR REPLACEMENT GOODS, OR CLAIMS OF CUSTOMERS OF OUR INITIAL PURCHASER. THE REMEDIES OF OUR INITIAL PURCHASER, AND ALL OTHERS, SET FORTH HEREIN, ARE EXCLUSIVE, AND THE LIABILITY OF CONBRACO WITH RESPECT TO SAME SHALL NOT, EXCEPT AS EXPRESSLY PROVIDED HEREIN, EXCEED THE PRICE OF THE GOODS UPON WHICH SUCH LIABILITY IS BASED.

* It is the end user's responsibility to confirm that items intended for use satisfy local codes and standards.

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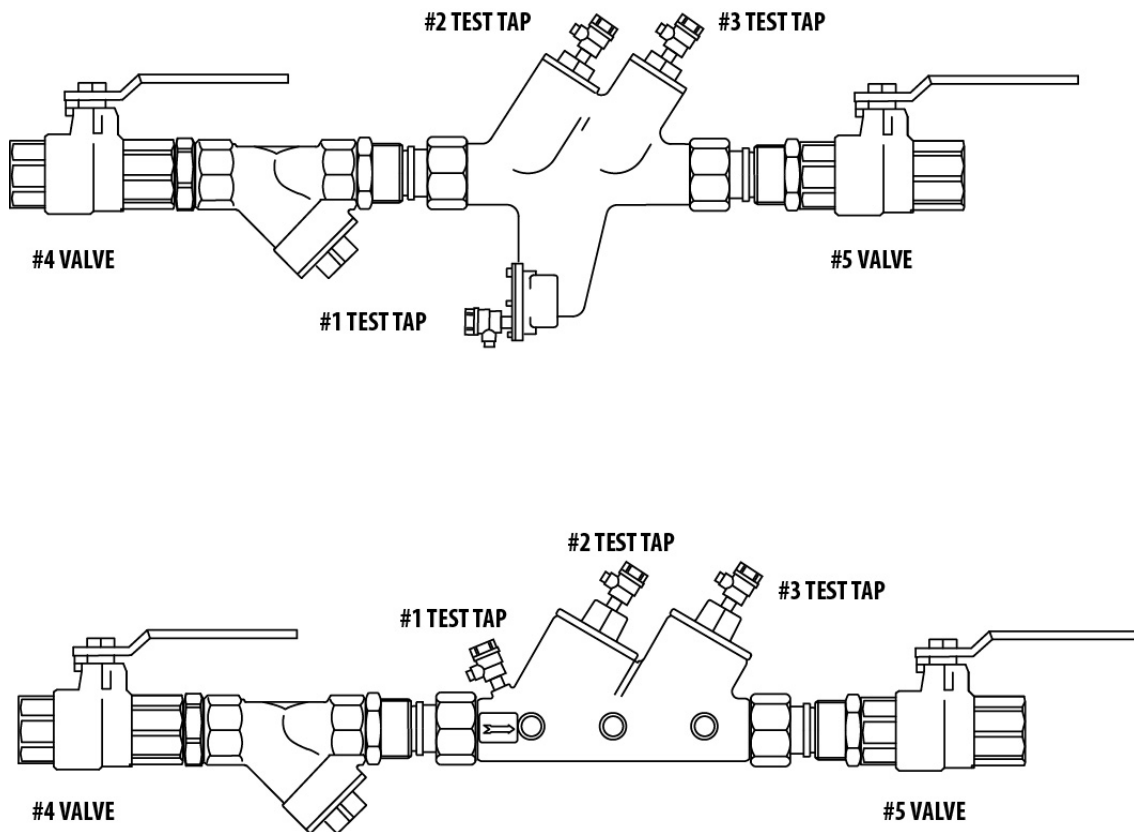
Ph: 02 8543 9811 sales@allvalve.com.au
Fax: 02 8543 9822 www.allvalve.com.au

INSTALLATION

Installations, testing and commissioning must be done in accordance with AS3500 and AS2845

- a. Double Check Valves and RPZ devices must be installed in an accessible location to facilitate periodic field testing and maintenance.
- b. RPZ valves must only be installed in a horizontal position with adequate clearance from walls and/or obstructions, for testing and maintenance.
- c. Backflow devices must only be commissioned by authorised personnel (having completed the required backflow course)
- d. The installer must notify relevant authorities after installation of the backflow device.
- e. The location selected for an RPZ should have adequate drainage for relief valve discharge, with a minimum 300mm above the ground. The device should never be placed where it may become submerged in standing water.
- f. A line strainer must be installed upstream of the backflow device, except when used in a fire service.
- g. An approved isolating valve must be installed immediately before the line strainer (or before the device on a fire service) and an isolating valve immediately after the device.
- h. Flush all upstream piping thoroughly to remove foreign matter prior to installing the device.
- i. After installing an RPZ assembly; close the downstream isolating valve, pressurize the RPZ device and bleed air through #3 test cock. Then open the downstream isolating valve again.

NOTE: If water continues to drain from the relief valve, please check the trouble shooting guide which is available on our website www.allvalve.com.au



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RPZ Test Procedure

a) Test Preparation

1. Check and if necessary, open upstream isolating valve (4)
2. Close downstream isolating valve (5)
3. In sequence, open and close test taps (1), (2) and (3) to flush out any impurities
4. Test Kit Valve (A) is open, (B) is closed and (C) is open

b) Test Isolating Valves

1. Connect the high pressure hose to test tap (3)
2. Slowly open test tap (3) and vent water through the vent hose
3. In sequence- close test kit valve (C) and upstream isolating valve (4) NOTE: The differential gauge will indicate a high reading
4. Slowly open test kit valve (B) and drop the gauge pressure by 20 Kpa
5. Close test kit valve (B)
6. Observe the differential gauge, if the pressure on the gauge is rising, either the upstream or downstream isolating valve is leaking.
 - To determine faulty valve. Open test tap (1), continuous discharge indicates upstream isolating valve is leaking.
 - If pressure on gauge drops (approaching zero) downstream isolating valve is leakingFaulty isolation valves require repair or replacement, and the test shall be repeated as leakage invalidates test results.
7. Close test tap (3)
8. Open test kit valve (C) to relieve hose pressure
9. Disconnect high pressure hose from test tap (3)
10. Clean line strainer where fitted
11. Open upstream isolating valve (4). Test kit valves (A) and (B) are closed, (C) is open

c) Test Upstream Non-Return Valve

1. Connect –
 - a. High pressure hose to test tap (1)
 - b. Low pressure hose to test tap (2)
2. Open test taps (1) and (2)
3. Slowly open test kit valve (A) and bleed water through vent hose. Close (A)
4. Slowly open needle valve (B) to bleed water through the vent hose. Slowly close test kit valve (B)

Requirement:

Record the reading on differential pressure gauge. If reading is below 35kPa, the upstream non-return valve is deemed to be faulty and must be repaired or replaced and the test repeated.

d) Test Relief Valve

1. Close test kit valve (C) and open test kit valve (A)
2. Slowly open needle valve (B) observing both differential gauge and relief port. Record the reading on the differential gauge when the relief port commences discharging

Requirement:

Should the reading be less than 14kPa, then the relief mechanism is deemed to be faulty and must be repaired or replaced and the test repeated.

3. Close test taps (1) and (2)
4. Open test kit valve (C) and close both test kit valves (A) and (B)

e) Test Downstream Non-Return Valve

1. Disconnect low pressure hose from test tap(2) and reconnect to test tap (3)
2. Open test taps (1) and (3)
3. Slowly open test kit valve (A) and bleed water through vent hose. Close (A)
4. Slowly open needle valve (B) to bleed water through the vent hose.
5. Slowly close test kit valve (C) and open test kit valve (A).

Requirement:

Observe the relief port for continual discharge, the downstream non-return valve is deemed to be faulty if continual discharge is present and must be repaired or replaced and the test repeated.

1. Close test taps (1) and (3), open test kit valves (A), (B) and (C). Disconnect all test kit hoses and open downstream isolating valve (5). Valve is returned to service.

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DCV Test Procedure

a) Test Preparation

1. Check and if necessary, open upstream isolating valve (4)
2. Close downstream isolating valve (5)
3. In sequence, open and close test taps (1), (2) and (3) to flush out any impurities
4. Test Kit Valve (A) is open, (B) is closed and (C) is open

b) Test Isolating Valves

1. Connect the high pressure hose to test tap (3)
2. Slowly open test tap (3) and vent water through the vent hose
3. In sequence- close test kit valve (C) and upstream isolating valve (4) NOTE: The differential gauge will indicate a high reading
4. Slowly open test kit valve (B) and drop the gauge pressure by 20 Kpa
5. Close test kit valve (B)
6. Observe the differential gauge, if the pressure on the gauge is rising, either the upstream or downstream isolating valve is leaking.
 - a. To determine faulty valve. Open test tap (1), continuous discharge indicates upstream isolating valve is leaking.
 - b. If pressure on gauge drops (approaching zero) downstream isolating valve is leakingFaulty isolation valves require repair or replacement, and the test shall be repeated as leakage invalidates test results.
7. Close test tap (3)
8. Open test kit valve (C) to relieve hose pressure
9. Disconnect high pressure hose from test tap (3)
10. Clean line strainer where fitted
11. Open upstream isolating valve (4). Test kit valves (A) and (B) are closed, (C) is open

c) Test Upstream Non-Return Valve

1. Connect –
 - a. High pressure hose to test tap (1)
 - b. Low pressure hose to test tap (2)
2. Open test taps (1) and (2)
3. Slowly open test kit valve (A) and bleed water through vent hose. Close (A)
4. Slowly open needle valve (B) to bleed water through the vent hose. Slowly close test kit valve (B)

Requirement:

Record the reading on differential pressure gauge. If reading is below 7kPa, the upstream non-return valve is deemed to be faulty and must be repaired or replaced and the test repeated.

5. Close test taps (1) and (2) and open test kit valves (A) and (B). Close test kit valves (A) and (B)

c) Test Downstream Non-Return Valve

1. Disconnect low pressure hose from test tap (2) and connect to test tap (3)
2. Disconnect high pressure hose from test tap(1) and connect to test tap (2)
3. Open test taps (2) and (3)
4. Slowly open test kit valve (A) and bleed water through vent hose. Close (A)
5. Slowly open needle valve (B) to bleed water through the vent hose. Slowly close test kit valve (B)

Requirement:

Record the reading on differential pressure gauge. If reading is below 7kPa, the downstream non-return valve is deemed to be faulty and must be repaired or replaced and the test repeated.

6. Close test taps (2) and (3) and open test kit valves (A) and (B)
7. Disconnect all test kit hoses and open downstream isolating valve (5). Valve is returned to service.

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