

Double Check Valve Assembly Test Procedures
(for use with five valve equipment)

Preparation Notify customer
 Inspect area
 Flush testcocks
 Install fittings
 Inspect test kit – close all needle valves

Note: test gauge and hoses must be at same level

**CV #1
Test** Install vertical tube on testcock #3
 Install compensating tee on testcock #2
 Attach high hose to compensating tee installed on testcock #2
 Open testcock #2 slowly
 Open high-pressure bleed valve then close high-pressure bleed valve
 Open testcock #3 to fill vertical tube
 Close testcock #3
 Close #2 shut-off valve
 Record line pressure
 Close #1 shut-off valve
 Open testcock #3
 Record status of check valve #1 (closed tight or leaking),
 Record value of check valve #1 (1.0 psid. or greater to pass)
 Close testcock #2 and testcock #3
 Open #1 shut-off valve

**CV #2
Test** Move vertical tube from testcock #3 to testcock #4
 Move high hose and compensating tee from testcock #2 to testcock #3
 Open testcock #3 slowly
 Open high-pressure bleed valve then close high-pressure bleed valve
 Open testcock #4 to fill vertical tube
 Close testcock #4
 Close #1 shut-off valve
 Open testcock #4
 Record status of check valve #2 (closed tight or leaking),
 Record value of check valve #2 (1.0 psid or greater to pass)

**Record Shut-Off
Valve** Record #1 & #2 shut-off valve as (closed tight or leaking)

Final Close testcocks #3 & #4, remove all test equipment
 Open #1 shut-off valve
 Open #2 shut-off valve slowly

Double Check Valve Assembly

Trouble Shooting

With compensating tee arrangement attached to high hose any time water continues to run out of the vertical sight tube you must observe and note gauge reading and prepare to operate the compensating tee in efforts to reduce the flow out of the sight tube to a sight drip.

NOTE: Flushing and/or cleaning the internal components can correct many problems. Carefully observe condition of components.

PROBLEM	MAY BE CAUSED BY
During CV #1 test, water stops running out of vertical tube and gauge drops to 0.0 psid. <i>(Leaking CV #1 fix and retest)</i>	1. Dirty or damaged CV #1 disk 2. Dirty or damaged CV #1 seat 3. Guide members hanging up 4. Weak or broken CV #1 spring
During CV #1 test, water continues running out of vertical tube after compensating tee runs out of water. <i>(Take observed reading and record CV #1)</i>	1. Leaking CV #2 and leaking #2 shut-off with backpressure
During CV #1 test, water continues running out of vertical tube and it <u>can</u> be controlled to a slight drip <i>(Record Check Valve #1)</i>	1. Slightly damaged #1 shut-off
During CV #1 test, water continues running out of vertical tube and it <u>cannot</u> be controlled to a slight drip <i>(stop test, resolve problem w/valve and retest)</i>	1. Severely damaged #1 shut-off valve
During CV #1 test, water stops running out of vertical tube and starts to recede into the tube <i>(Lower equipment to centerline of assembly and record CV #1)</i>	1. Leaking CV #2 and Slightly Damaged #2 shut-off with flow to customer
During CV #2 test, water stops running out of vertical tube and gauge drops to 0.0 psid. <i>(Leaking CV #2 fix and retest)</i>	1. Dirty or damaged CV #2 disk 2. Dirty or damaged CV #2 seat 3. Guide members hanging up 4. Weak or broken CV #2 spring
During CV #2 test, water continues running out of vertical tube and it <u>can</u> be controlled to a slight drip <i>(Record Check Valve #2)</i>	1. Slightly damaged #1 shut-off
During CV #2 test, water continues running out of vertical tube after compensating tee runs out of water. <i>(Take observed reading and record CV #2)</i>	1. Leaking #2 shut-off with backpressure
During CV #2 test, water stops running out of vertical tube and starts to recede into the tube <i>(Lower equipment to centerline of assembly and record CV #2)</i>	1. Leaking #2 shut-off with flow to customer

Repair Note: Lubricants shall only be used to assist with the re-assembly of components, and shall be USDA approved and non-toxic.