

Model 310

Single Detector Check Valve Assembly (4" & 6")

WILKINS
a **ZURN** company

□ Installation □ Maintenance Instructions

INSTALLATION INSTRUCTIONS

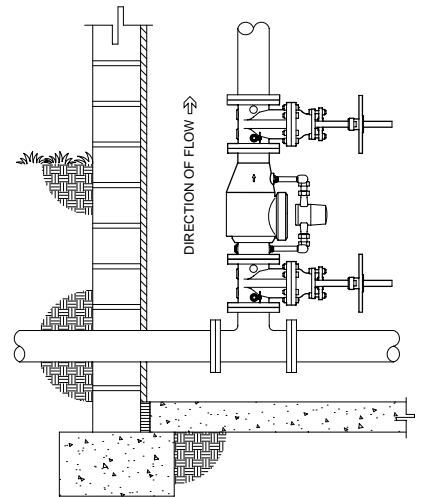
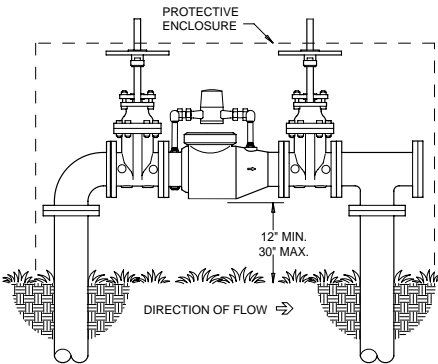
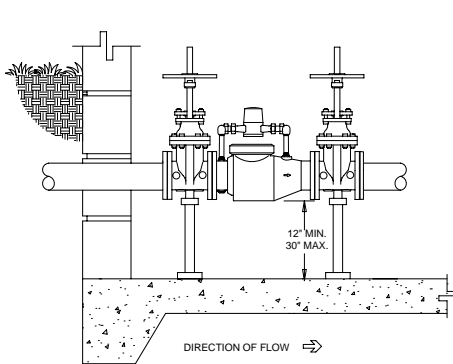
CAUTION: Installation of Backflow Preventers must be performed by qualified, licensed personnel. The installer should be sure the proper device has been selected for the particular installation. Faulty installation could result in an improperly functioning device.

WILKINS Model 310 Single Check Valve assemblies are for use on potable water lines where a health hazard does not exist in the event of a backflow situation.

Damage to the device could result wherever water hammer and/or water thermal expansion could create excessive line pressure. Where this could occur, shock arrestors, check valves and/or pressure relief valves should be installed between the source of the water hammer or excess pressure and the device.

If installation is in a pit or vault, the Backflow Preventer must never be submerged in water because this could cause a cross-connection. Make sure that the pit or vault always remains dry by providing ample drainage. (Consult local codes.)

1. Before installing a Backflow Preventer, flush the line thoroughly to remove all debris, chips and other foreign matter. If required, a strainer should be placed upstream of the Backflow Preventer. **CAUTION:** Do not use a strainer in seldom used emergency waterlines such as fire lines.
2. Provide adequate space around the installed unit for testing and servicing.
3. Install valve at least 12 inches above surrounding flood level.
4. Always consult local codes for installation methods, approvals and guidance.



INDOOR INSTALLATION

Indoor installation is preferred in areas that are subject to freezing conditions. All the basic installation instructions apply to such installations.

OUTDOOR INSTALLATION

Backflow Preventers may be installed outdoors only if the device is protected against freezing conditions. Exposure to freezing conditions will result in improper function or damage to the device. The installation location must be kept above 32°F. All the basic installation instructions apply.

VERTICAL INSTALLATION

Vertical installation of double check valves is acceptable in applications where inlet and outlet piping are flowing vertically upwards. All the basic installation instructions apply to such installations. Consult factory for approval status.

PLACING THE DEVICE IN SERVICE

1. Start with both shut-off valves closed. Slowly open the inlet shut-off valve until the backflow preventer is completely pressurized.
2. Slowly open the downstream shut-off valve. The backflow preventer is now in service.

STANDARDS COMPLIANCE

- Factory Mutual 1045
- UL® Listed
- C-UL® Listed



Proposition 65 Warning This product contains chemicals known to the State of California to cause cancer or birth defects or other reproductive harm.

Maintenance Instructions

Model 310 Single Detector Check Valve Backflow Preventers must be inspected and maintained by licensed personnel at least once a year or more frequently as specified by local codes. Replacement of worn or damaged parts must only be made with genuine "WILKINS" parts.

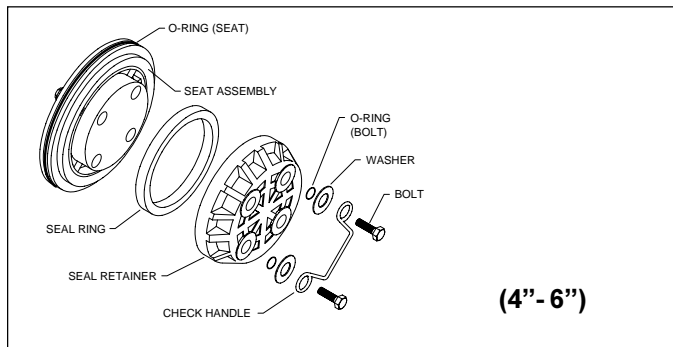
Backflow prevention assemblies should be thoroughly flushed after backflow conditions occur to prevent any type of corrosive deterioration to its components. Failure to do so could result in malfunction of the device.

GENERAL MAINTENANCE

1. Clean all parts thoroughly with water after disassembly.
2. Carefully inspect rubber seal rings and O-rings for damage.

SERVICING CHECK VALVES

1. Close inlet and outlet shut-off valves.
2. Loosen and remove the two nuts, bolts and gasket from the grooved coupling around the access cover.



3. The valve has a plastic retainer securing the check, grasp one of the exposed ends, push down and then pull. The retainer should "spiral" out of the groove around the check.
4. Remove the hardware and o-rings from the back of the check assembly (See "Check Assembly" illustration). Separate the seal retainer from the assembly to expose the seal ring.
5. Inspect the seal ring for cuts or embedded debris and replace if cut or damaged in any way. If the reverse side of the seal is unused, the seal ring can be inverted and used temporarily until a new seal is obtained.
6. Inspect valve cavity and seating areas. Flush with water to remove any debris.
7. Install the plastic retainer by inserting one end into the body groove and then sliding your hand around the face of the retainer, pushing it into the groove as you go. The retainer will "snap" into place when fully seated. (Reassembly) Lubricate the o-ring and reinstall check in the body.
8. Lubricate the outside surface of the grooved coupling, making sure the ends of the coupling touch each other. Place valve back in service.

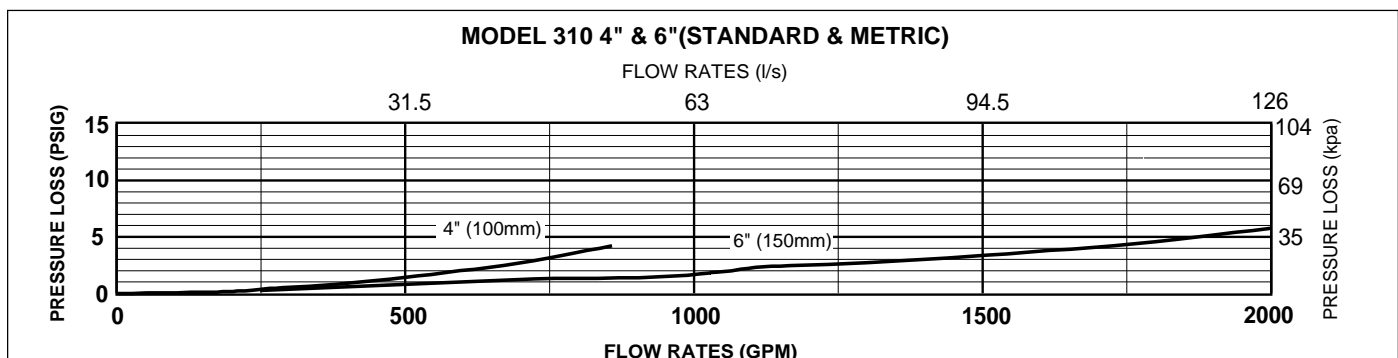
SPECIFICATIONS

Maximum working water pressure:	175 PSI
Maximum working water temperature:	140°F
Hydrostatic test pressure:	350 PSI
End connections:	Flanged ANSI B16.1 Class 125 Grooved AWWA C606

Troubleshooting

PROBLEM (Model 310/310DA)	POSSIBLE CAUSES	CORRECTIVE ACTION
1. LEAKING CHECK VALVES	<ol style="list-style-type: none"> 1. Debris on seat or seal ring 2. Damaged seat area 3. Damaged seat o-ring 	<ol style="list-style-type: none"> 1. Clean seat area 2. Replace check assembly 3. Replace seat o-ring
2. LOW OR NO FLOW	<ol style="list-style-type: none"> 1. Device installed backwards 2. Gate valves not fully open 3. Low supply pressure 	<ol style="list-style-type: none"> 1. Verify flow direction arrow 2. Turn handles counterclockwise 3. Attach pressure gauge to verify pressure

Performance Characteristics



Proper performance is dependent upon licensed, qualified personnel performing regular, periodic testing according to WILKINS' specifications and prevailing governmental & industry standards and codes and upon following these installation instructions. Failure to do so releases WILKINS of any liability that it might otherwise have with respect to that device. Such failure could also result in an improperly functioning device.

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