# Model 950LF

Dual Check Backflow Preventer (3/4", 1", 1 1/4", 1 1/2" & 2")



## □ Installation □ Testing □ Maintenance Instructions

#### INSTALLATION INSTRUCTIONS

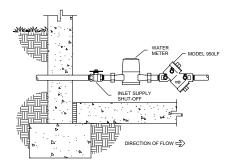
CAUTION: Installation of backflow preventers must be performed by qualified, licensed personnel. The installer should be sure the proper device has been selected for the particular installation. Faulty installation could result in an improperly functioning device.

WILKINS Model 950LF dual 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 downstream of 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.

- Before installing a Model 950LF 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.
- Provide adequate space around the installed unit so that the test cocks will be accessible 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.



#### **OUTDOOR INSTALLATION**

The Model 950LF Backflow Preventer 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.

#### **INDOOR INSTALLATION**

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

## VERTICAL INSTALLATION

Vertical installation 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.

### **MAINTENANCE INSTRUCTIONS**

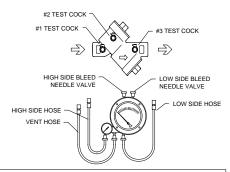
- 1. Clean all parts thoroughly with water after disassembly.
- 2. Carefully inspect rubber seal rings & orings for damage.
- 3. Test device after reassembly for proper operation

#### PLACING THE 950LF IN SERVICE

- 1. Start with the water service shut-off valve in the closed position. Slowly open the inlet shut-off valve until the backflow preventer is completely pressurized.
- When the unit has been pressurized, vent any trapped air by slightly opening each of the three test cocks.
- 3. After the Model 950LF has been properly installed, test the device (see "TEST PROCEDURES"). If the device fails the test, remove the first and second check valves and thoroughly flush the device. Clean rubber and seats of all debris and place unit back in service.

#### **TEST PROCEDURES**

- 1. The water service shut-off valve must be turned to the open position. A downstream shut-off valve should be closed to insure no water is flowing through the device.
- 2. Connect the high side hose of differential pressure gauge the #1 test cock. Connect the low side hose of the differential pressure gauge to the #2 test cock. Open test cocks #1 & #2. Bleed gauge of air and observe differential reading. If gauge reads 1 psi or above, the check is considered good. Close test cocks and remove hoses.
- 3. Attach low side hose to test cock #3 and the high side hose to test cock #2. Open test cocks #2 & #3. Bleed gauge of air and observed differential reading. If gauge reads 1 psi or above, the check is considered good.
- 4. Close the test cocks and disconnect the differential pressure gauge. The device is now ready for operation.



WARNING: This product contains lead. A chemical known to the State of California to cause cancer or birth defects or other reproductive harm. Attention plumber/installer: California law requires that this warning be given to the consumer.

## **Troubleshooting**

LEAKING CHECK VALVES

#### **PROBLEM**

### POSSIBLE CAUSES

- 1. Clean seat area
- 1. Debris on seat or seal ring

Damaged seat area

- 2. Replace check assembly
- 3. Damaged seat o-ring
- 3. Replace seat o-ring
- Damaged bolt o-ring(s) on check retainer
- 4. Replace o-ring(s)

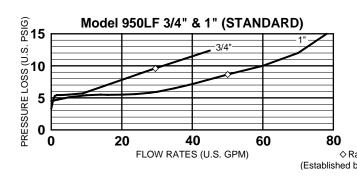
- LOW OR NO FLOW
- 1. Device installed backwards
- 1. Verify flow direction arrow
- 2. Gate valves not fully open
- 2. Turn handles counterclockwise

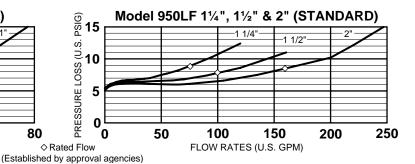
3. Low supply pressure

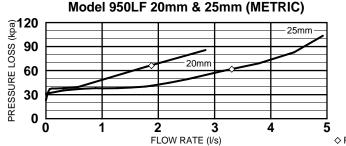
3. Attach pressure gauge to testcock #1 and verify pressure

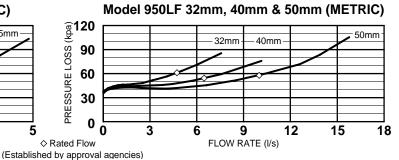
CORRECTIVE ACTION

## **Performance Characteristics**









Capacity thru Schedule 40 Pipe				
Pipe size	5 ft/sec	7.5 ft/sec	10 ft/sec	15 ft/sec
1/8"	1	1	2	3
1/4"	2	2	3	5
3/8"	3	4	6	9
1/2"	5	7	9	14
3/4"	8	12	17	25
1"	13	20	27	40
1 1/4"	23	35	47	70
1 1/2"	32	48	63	95
2"	52	78	105	167

### **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

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.

