

Troubleshooting Guide

Reduced Pressure Backflow Preventers

Problem	Cause	Should valve be replaced?	Solution
A. Valve spits periodically from the vent.	A.1 Fluctuating supply pressure.	No	A.1 Install a spring-loaded, soft seated check valve immediately upstream of the device.
	A.2 Fluctuating downstream pressure.	No	A.2 Install a spring-loaded, soft seated check valve downstream of the device as close as possible to the shutoff valve.
B. Valve drips continually from the vent.	B.1 Fouled first check.	No	B.1 Flush valve. If flushing does not resolve problem, disassemble valve and clean or replace the first check.
	B.2 Damaged or fouled relief valve seat.	No	B.2 Clean or replace the relief valve seat.
	B.3 Relief valve piston "O" ring not free to move due to pipe scale, dirt or build-up of mineral deposits.	No	B.3 Clean, grease or replace the piston "O" ring
	B.4 Excessive backpressure, freezing, or water hammer has distorted the second check.	No	B.4 Eliminate source of excessive backpressure or water hammer in the system downstream of the device. Use Watts No. 601 to dampen out backpressure and No. 15M2 to eliminate water hammer. Replace defective second check assembly. In case of freezing; thaw, disassemble, and inspect internal components. Replace as necessary.
	B.5 Electrolysis of relief valve seat or first check seats.	No	B.5 Replace relief valve seat or inlet cover. Install dielectric unions (Watts Series 3001 through 3006). Electrically ground the piping system and/or electrically isolate the device with plastic pipe immediately upstream and downstream of the device.
	B.6 Valve improperly reassembled.	No	B.6 If valve is disassembled during installation, caution must be exercised to install check springs in their proper location.
C. Valve exhibits high pressure drop.	C.1 Fouled strainer.	No	C.1 Clean strainer element or replace.
	C.2 Valve too small for flows encountered.	Yes	C.2 Install proper size device based upon flow requirements.
D. No water flows downstream of valve.	D. Valve installed backwards.	No	D. Install valve in accordance with flow direction arrow.
E. Valve does not test properly.	E.1 Follow manufacturer's test procedure.	No	E.1, E.2 Clean or replace gate valve with full port ball valves or resilient wedge shutoff valves.
	E.2 Leaky downstream gate valve.	No	
F. Valve quickly and repeatedly fouls following servicing.	F. Debris in pipe line is too fine to be trapped by strainer.	No	F. Install finer mesh strainer element in the strainer.
G. Winterization of backflow preventers.			G. Prevent freeze damage by enclosing in a WATTSBOX heated enclosure. For additional information, reference ES-WB or ES-WB-T.

