



Model 107A High Capacity Air Vent

WARNING LABEL PART NO. V56845
INSTALLED IN THIS LOCATION.
IF MISSING, IT MUST BE REPLACED.

INSTALLER: PLEASE LEAVE THIS MANUAL FOR THE OWNER'S USE.

DESCRIPTION

The Bell & Gossett Model 107A High Capacity Air Vent is designed for use in liquid systems to purge undesirable free air that otherwise could impede system performance, increase system operating cost and contribute to the damaging effects of corrosion. The accumulation of air in the body of the Model 107A High Capacity Air Vent causes a float to drop allowing the air to be vented thru an air eliminating orifice. As the liquid level rises in the vent body, the float also rises shutting off the flow of venting gases.



SAFETY INSTRUCTION

This safety alert symbol will be used in this manual to draw attention to safety related instructions. When used, the safety alert symbol means ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED! FAILURE TO FOLLOW THE INSTRUCTIONS MAY RESULT IN A SAFETY HAZARD.

Temperature and Pressure Limits

Maximum operating temperature: 250°F
Maximum operating pressure: 150 psig

INSTALLATION INSTRUCTIONS

1. Install the Model 107A Vent in a location where air is expected to collect or where it is desirable to prevent air accumulation. See typical applications on back page.
2. Install the Model 107A High Capacity Air Vent with its vent connection in the top vertical position.

CAUTION: The generous use of pipe joint compound when installing 107A High Capacity Air Vent will foul the vent's operating mechanism allowing water to escape. Pipe joint compound must be conservatively applied to male threads only. Failure to follow this instruction can result in personal injury from hot water and/or property damage.



CAUTION: The use of PTFE impregnated pipe compound and PTFE tape on pipe threads provides lubricity which can lead to overtightening and breakage. Do not overtighten. Failure to follow this instruction can result in personal injury from hot water and/or property damage.



CAUTION: When the vent discharges air or if foreign material from the system fouls the vent's operating mechanism, it is possible for water to also be discharged. Vent must be piped to a drain. Failure to follow this instruction can result in personal injury from hot water and/or property damage.

3. A service valve should be installed upstream of the Model 107A High Capacity Air Vent.

OPERATING INSTRUCTIONS



CAUTION: Liquids and additives such as hydrocarbons, which are aggressive to the EPDM elastomer seals used in the 107A Air Vent, can cause the seals to fail and allow uncontrolled discharge of system fluid. Do not use the 107A Air Vent on systems utilizing such fluids or additives. Failure to follow this instruction can result in personal injury from hot water and/or property damage.



WARNING: The model 107A Air Vent will discharge air and possibly some liquid during its normal functioning. Avoid eye, face or skin contact with top area of Air Vent. Bell & Gossett recommends the vent connection be piped to a drain to prevent accidental contact with discharging fluids. Failure to follow this instruction can result in serious personal injury and/or property damage.

SERVICE INSTRUCTIONS

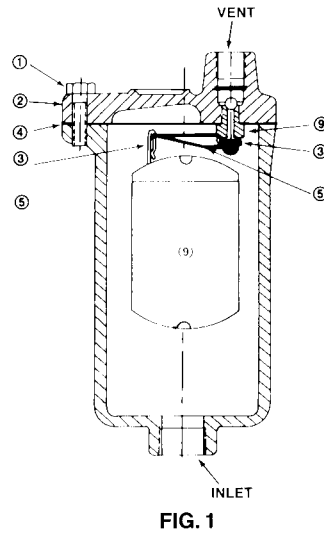
WARNING: Corrosion or leakage are indications that the 107A Air Vent may be about to cause serious damage from leakage or rupture. It should be periodically inspected and if noted, 107A Air Vent must be replaced or serviced. Failure to follow this instruction can result in serious personal injury and/or property damage.

If model 107A Air Vent does not shutoff after air has been vented off, the seat button may be replaced as follows:

WARNING: System fluid under pressure and/or at high temperatures can be very hazardous. Before servicing, reduce system pressure to zero or isolate the 107A Air Vent from the system. Allow system to cool below 100°F. Failure to follow this instruction can result in serious personal injury and/or property damage.

1. Remove the four capscrews that attach the cover to the body. (Item 1, Fig. 1)
2. Remove the cover from the body making sure not to damage the gasket surfaces on the cover or the body. (Item 2, Fig. 1)
3. Inspect the rubber button and its mating seating surface for damage or foreign material. (Items 3 & 4, Fig. 1 or 2) If the rubber button is damaged or has deteriorated, the lever and button assembly must be replaced.
4. The spring lever and button assembly is removed by pulling the outer wires of the spring lever out of the holes in the seat yoke. (Items 5 & 8, Fig. 2) (See Fig. 1 Note). Next, remove the spring lever and button assembly from the float by pulling it through the retaining hooks. (Item 6, Fig. 1 or 2).
5. Reverse the procedure in (4) above to install a new lever and button assembly. If the seat yoke has two sets of holes install the lever in the smaller off center holes. (See Figure 3.)

6. Thoroughly clean gasket surfaces and install a new gasket. (Item 7, Fig. 1)
7. Place cover assembly back in place on the body. Replace capscrews and tighten in a criss cross pattern to 20 ft-lbs of torque.
8. Open any shutoff valves and return the system to normal operation.
9. Check for gasket leaks. Retighten bolts or replace gasket if necessary.



NOTE: On some air vents, the ends of the spring lever have been welded to produce a restraining bead. To remove these spring levers it is necessary to cut the spring lever. The replacement spring lever will not have these welds and they are necessary only for shipment purposes.

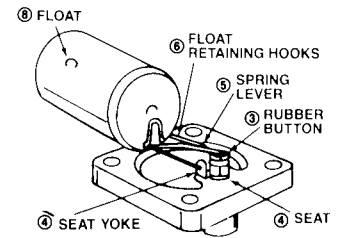


FIG. 2

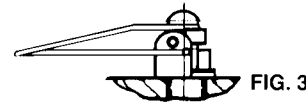
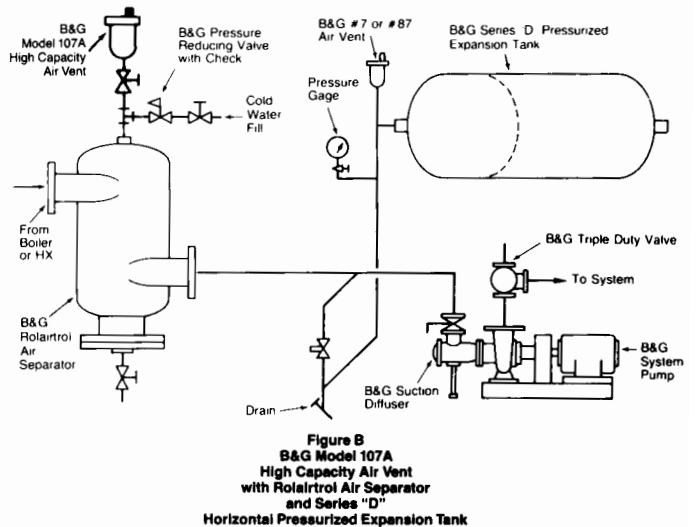
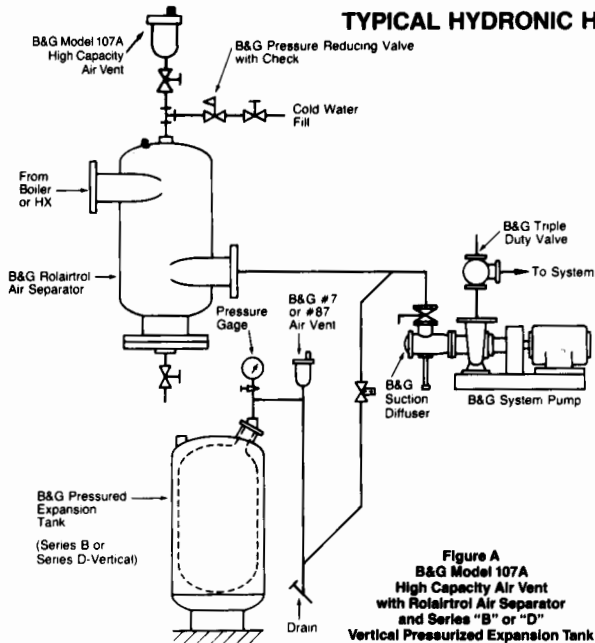


FIG. 3

TYPICAL HYDRONIC HEATING/COOLING APPLICATIONS



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Xylem Inc.
8200 N. Austin Avenue
Morton Grove, Illinois 60053
Phone: (847) 966-3700
Fax: (847) 965-8379
www.xylem.com/brands/bellgossett