



# Enhanced Air Separator Model EAS

**WARNING LABEL PART NO. V56871  
INSTALLED IN THIS LOCATION.  
IF MISSING, IT MUST BE REPLACED.**

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

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## DESCRIPTION

The Bell & Gossett Model EAS Enhanced Air Separator is a highly efficient device for removing entrained air bubbles in hydronic systems. The combination diffuser and coalescing medium design makes possible the removal of very small air bubbles from the fluid stream by coalescence at substantial fluid velocity. The diffuser forces the system fluid to cover the entire inlet portion of the coalescing medium. The coalescing medium will collect air bubbles on its stainless steel filaments. As the bubbles coalesce together, they will rise to the top of the separator where they can be released to the atmosphere through the automatic air vent.



## SAFETY INSTRUCTIONS

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 THESE INSTRUCTIONS MAY RESULT IN A SAFETY HAZARD.

## Temperature and Pressure Limits

Maximum Operating Temperature: 250°F (121°C)  
Maximum Operating Pressure: 150 psig (10.3 bar)

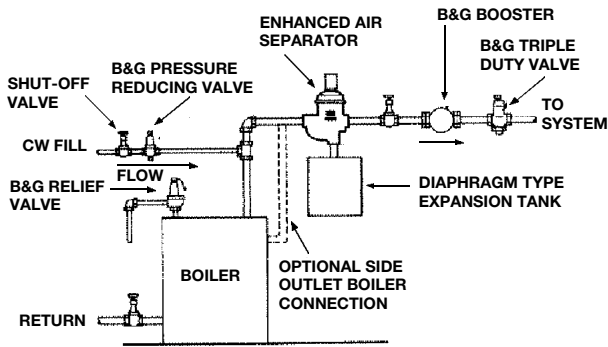
## INSTALLATION INSTRUCTIONS

1. The Enhanced Air Separator Model EAS is supplied in either 1", 1 $\frac{1}{4}$ ", 1 $\frac{1}{2}$ " or 2" NPT sizes. The 1" size may be bushed down to  $\frac{3}{4}$ " NPT for use in  $\frac{3}{4}$ " piping systems.
2. The Enhanced Air Separator can be installed inline or in an angle configuration to replace a piping elbow. The unit must be installed with the automatic air vent in a vertical position.
3. Pipe the Enhanced Air Separator into the system as shown in typical installation Figures 1 or 2.

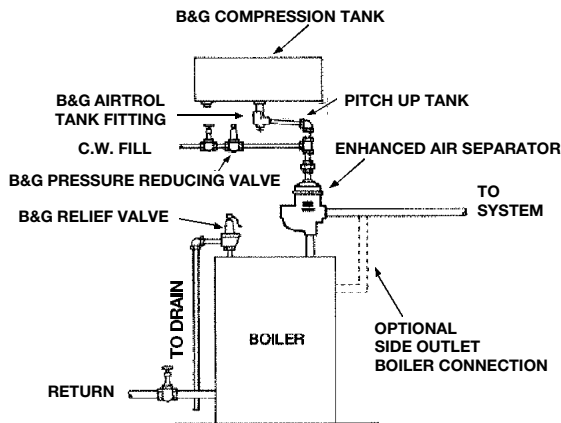


**CAUTION:** The use of PTFE impregnated pipe compound and PTFE tape on pipe threads provides lubricity which can lead to overtightening and breakage. Do not overtighten. Failure to follow this instruction can result in moderate personal injury from hot water and/or property damage.

4. The Enhanced Air Separator must be installed with the flow arrow on the body casting pointing in the direction of flow.



**TYPICAL INSTALLATION  
FIGURE 1**



**TYPICAL INSTALLATION  
FIGURE 2**

**CAUTION:** Uncontrolled venting of water can occur with automatic air vents if foreign material prevents vent from closing. A No. 113023 overflow connector and 1/4" OD copper tube should be used to direct unwanted flow to a drain. The 2" NPT size can be piped to a drain using a flare to 1/8" NPT connector with 1/4" OD copper tube. Failure to follow these instructions could result in property damage and/or moderate personal injury.

### OPERATING INSTRUCTIONS

**CAUTION:** Contaminants and scale from the system can foul the automatic air vent operating mechanism. Keep vent cap closed tight during the system filling to prevent contaminants from running into valve vent mechanism. Failure to follow these instructions could result in property damage and/or moderate personal injury.

The automatic air vent can be used to automatically or manually vent the hydronic stem. To manually operate the vent, press down on the vent stem (tire type valve).

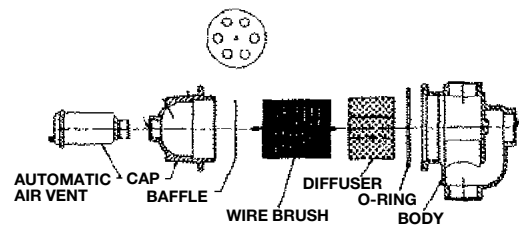
**CAUTION:** Hot venting water can be hazardous. Avoid contact with venting fluid and only manually vent when system temperature is below 100°F (37.8°C). Failure to follow these instructions could result in property damage and/or personal injury.

To shut off the vent so that it cannot vent automatically, (only those without overflow connector installed), screw cap on top of vent down tight. For normal automatic venting open cap only about one full turn so that there is a slow release of air. A fast release of air will allow contaminants or scale to foul the vent mechanism. The small hole in the side of the cap allows air to escape with cap in place. When an overflow connector and tube to a safe drain is used, continuous automatic venting is provided.

### SERVICE INSTRUCTIONS

**WARNING:** Servicing the Enhanced Air Separator with unit pressurized or at temperature above 100°F (37.8°C) can cause personal injury. Make sure pressure is removed from unit and temperature is below 100°F (37.8°C). Failure to follow these instructions could result in serious personal injury or death and property damage.

1. The Enhanced Air Separator should not require servicing. If the system fluid contains large amounts of contaminants, the perforated metal diffuser and/or the air coalescing brush may become contaminated with foreign substances. The Enhanced Air Separator cap unscrews from the body for easy cleaning of both the brush and diffuser. When replacing the perforated metal diffuser make sure that the overlap portion of the diffuser is at 90° to the NPT body connection. The diffuser will have to be held during the assembly of body and cap to prevent it turning. This can be done through the NPT connections. Please refer to Figure 3.
2. The #87 or #78 automatic air vent can be replaced by unscrewing it from the Enhanced Air Separator cap.



**FIGURE 3**

**CAUTION:** Corrosion of or leakage from the Enhanced Air Separator can cause damage or injury. Periodically inspect the Enhanced Air Separator for signs of leakage or corrosion. If noted the Enhanced Air Separator must be replaced. Failure to follow these instructions could result in property damage and/or moderate personal injury.

**xylem**  
Let's Solve Water

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