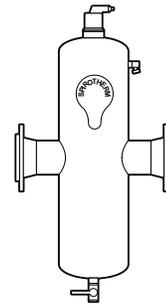




## SPIROVENT® INSTALLATION and OPERATION INSTRUCTIONS **AIR ELIMINATOR & DIRT SEPARATOR** **MODELS VDT/VDN and VHT/VHN Through 12"**



### **SAFETY INSTRUCTION**

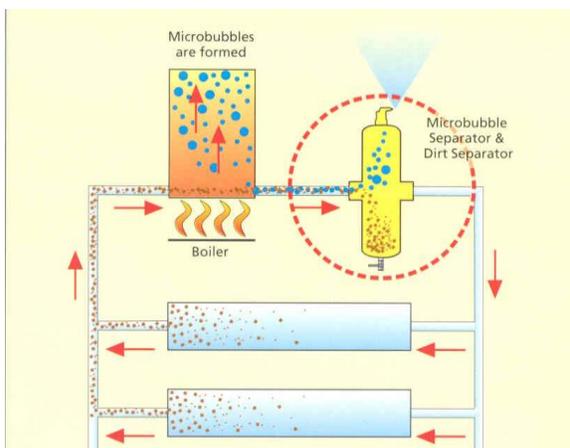
**This safety alert symbol will be used to draw your attention to safety related instructions. When used, this symbol means Attention! Your safety is involved! Become Alert! Failure to follow these instructions could result in a safety hazard!**

### **INSTALLATION INSTRUCTIONS**

The Spirovent Air Eliminator should be installed at the point of lowest solubility in the system: that being where the temperature is the highest (i.e. after the boiler and/or heat exchanger or before the chiller) and the pressure is the lowest (i.e. before the pump suction), as pictured in Figure 1 below. As with all hydronic system piping, it is recommended to have the expansion tank connection to the system on the suction side of the pump or circulator.

Units must be mounted in a straight run of horizontal piping in a perfectly upright position to allow the vent to operate freely. The piping normally supports the weight of the Spirovent units up to and including 12". Support legs recommended for units 14" and larger. "X" pipe diameters of straight run before and after the unit are not required.

The flow may be directed to either side of the unit. There is NO directional arrow. Either connection may be used for inlet or outlet.



*Figure 1*

The threaded connection at the air vent outlet has been provided as a convenience for those wanting to pressure test the system with air prior to filling.

To test, install a 1/2" pipe cap before filling with air and remove the cap once testing is complete. During normal system operation, this threaded connection should be free of any piping connection with the unit in service to allow the free flow of air and gases. It may be piped to another location if left open, however, the risk then exists for blockages, which will impede the product's performance.

**CAUTION! Do not attempt to turn the venting port, as that will damage and/or destroy the venting mechanism.**

**Do not pipe make-up water line near the vent head assembly as it will impede proper operation.**

The tap valve on the side of the Spirovent Senior unit is provided to skim off debris that may collect and float on the surface of the water. The valve may be opened during system fill to allow for faster filling of the vessel. A hose may be used to direct air and water away from personnel and/or other equipment. Close valve once water is present. **Do not use this connection for make-up water line.**

**⚠ WARNING!** Water temperatures above 100°F can be very hazardous. Keep body away from valve while open. Failure to follow these instructions may cause serious bodily injury or property damage.

## SERVICE INSTRUCTIONS

The Spirovent does not normally require maintenance and includes no moving parts other than those in the vent head itself.

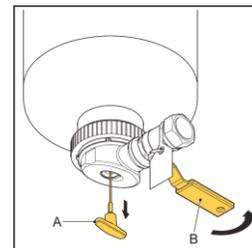
**⚠ WARNING!** System fluid under pressure can be very hazardous. Before removing the vent head for inspection, reduce system pressure to zero, or isolate the Spirovent from the system. Allow the system to cool to below 100°F. Failure to follow these instructions may cause serious bodily injury or property damage.

The Spirovent Dirt and Drain Models also allow for dirt and sediment separation.

The ball valve on the bottom of the unit should be opened on a regular basis to purge debris from the collection chamber. A container should be used to catch any debris.

For units with rotatable magnetic dirt separator, as shown on the right, gradually pull down the internal magnet using the pull-cord (A). Slowly let the handle return to the original position. Repeat these the steps one or two times more times for the best result.

With the ferrous material now collected at the bottom of the unit, the ball valve (B) can be opened to purge debris from the collection chamber. A container should be used to catch any debris.



**⚠ WARNING!** Water Temperatures above 100°F can be very hazardous. Keep body away from connection while open. Failure to follow these instructions may cause serious bodily injury or property damage.

Frequency of purging is system dependent based upon degree of sediment in the system. Frequent purging is recommended right after installation and then scheduled as needed as the systems clears.

Units with optional removable head can be disassembled and the tube bundle removed for inspection or cleaning. The removable head is a user-specified feature and frequency of inspection and/or cleaning is user or system dependent.

**⚠ WARNING!** System fluid under pressure can be very hazardous. Before removing the unit head, reduce system pressure to zero, or isolate the Spirovent from the system. Allow the system to cool to below 100°F. Failure to follow these instructions may cause serious bodily injury or property damage.

**⚠ WARNING!** Unit head and bundle are heavy. Keep body clear of the head and bundle when disassembling. Failure to follow these instructions may cause serious bodily injury or property damage.

Taking care to support the head, remove bolts and slide the bundle out. Clean the bundle using a pressure washer or hose and reinstall the bundle in the Spirovent unit. Be sure to check the gasket before reinstalling the head, and replace if necessary. Tighten bolts using a criss-cross pattern to proper torque. Before opening isolation valves, close ball valve.

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