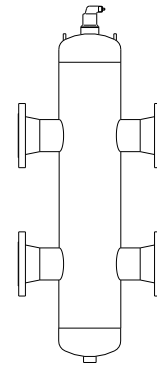




SPIROVENT QUAD® INSTALLATION and OPERATION INSTRUCTIONS

VDX/VXN AIR ELIMINATOR, DIRT SEPARATOR, HYDRAULIC SEPARATOR

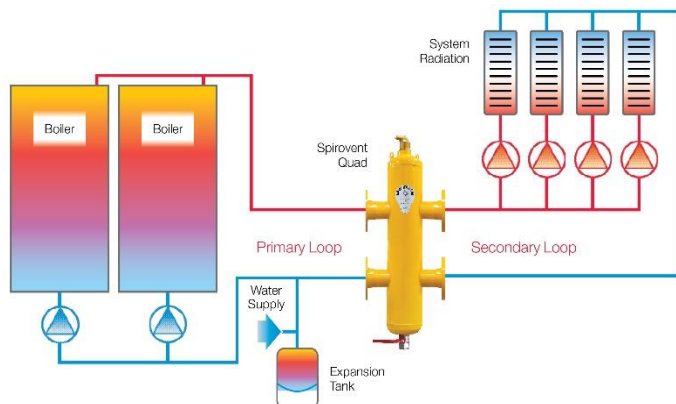


SAFETY INSTRUCTION

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 Quad Hydraulic Separator should be installed at the intersection of the primary (boiler) loop and secondary (load) loop. 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 straight runs of horizontal piping in a perfectly upright position to allow the vent to operate freely. The piping normally supports the weight of Spirovent Quad 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.

Each loop must be connected to one side of the unit, e.g., boiler loop on the left side and load loop on the right side. Supply of primary loop and supply of secondary loop must be opposite each other, i.e., flow

straight through. Similarly, return of secondary loop and return of primary loop must be opposite each other.

For heating systems, the *supply* (hottest water) must use the top connections, as shown in the diagram, to allow air to vent freely. For cooling systems, the *return* (warmest water) must use the top connections to allow air to vent freely.

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.

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

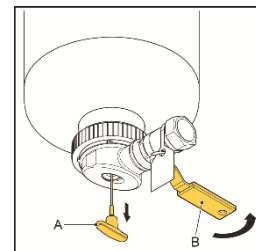
⚠ WARNING! System fluid under pressure can be very hazardous. Before removing the vent head for inspection, reduce system pressure to zero, or isolate the Spirovent from the system. Allow the system to cool to below 100°F. Failure to follow these instructions may cause serious bodily injury or property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

The Spirovent Quad 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.

Spirotherm, Inc.
462 Camden Dr.
Bloomington, IL 60108
630-307-2662