

SPIROTHERM, INC.

Suggested Specification

SPIROVENT® QUAD Air Eliminator, Dirt Separator, Hydraulic Separator

Furnish and install as shown on the drawings and schedule a full flow coalescing type combination air eliminator, dirt separator, hydraulic separator for the hot and chilled water systems. Selection shall be based upon system flows with pipe size as a minimum in accordance with the basis of design. Separator shall be fabricated steel, rated for 150 psig working pressure, stamped and registered in accordance with ASME Section VIII, Division 1 for unfired pressure vessels, and include three performance chambers within the vessel. One chamber above the higher nozzle set for air elimination, one below the lower nozzle set for dirt separation, and one between the nozzles for hydraulic separation. The vessel diameter, height above and below the nozzles, and distance between the nozzles must be equal to the basis of design. Unit shall include internal Spirotube® elements filling the entire vessel to suppress turbulence and provide air elimination efficiency of 100% free air, 100% entrained air, and 99.6% dissolved air at the installed location. Dirt separation efficiency shall be a minimum of 80% of all particles 30 micron and larger within 100 passes. The elements must consist of a copper core tube with continuous wound copper wire medium permanently attached and followed by a separate continuous wound copper wire permanently affixed. Each unit shall have a separate venting chamber to prevent system contaminants from harming the float and venting valve operation. At the top of the venting chamber shall be an integral full port float actuated brass venting mechanism. Basis of design for the air eliminator / dirt separator / hydraulic separator shall be the Spirovent Quad® Series VDX as manufactured by Spirotherm, Inc., Glendale Heights, Illinois or approved equal as noted*. Optional VXN Series by Spirotherm, Inc. shall include removable lower head for internal inspection if so noted on the drawings and schedule.

* Alternates must be approved to bid 10 days prior to bid date and include dimensional drawing to verify actual size of vessel, verification of 150 psi ASME construction, and venting mechanism. A detailed certified drawing and photos of alternate coalescing elements shall be included showing material, grade, style, type, and placement of such elements within the vessel. Reduced vessel size, partial fill, or elements spaced apart will not be accepted. Alternates submitted for prior approval will not be subject to Revise and Resubmit option and will receive only one review. If not approved, basis of design must be furnished.