

VaporMate

Zero Emission Condensate Recovery Unit



Aqualogic Condensate Recovery Unit is designed to condense the water from atmospheric evaporator discharges and return the air to the Evaporator, providing a zero-emission closed loop system and eliminating exhaust stacks to atmosphere. The recovered water is typically suitable for reuse* as make-up or rinse water, depending upon requirements. The unit features the following components:

Fabricated of ½” polypropylene, with Inlet and outlet transitions, condensing chamber, and condensate collection reservoir; condensate reservoir discharge pump and level switch for returning condensate to process.

Heat Exchanger Module constructed of chemical resistant 316 Stainless Steel, with header assembly, inlet/outlet temperature gages, and manual control valve. Coil capacity of 260K Btuh is designed for use with 55°F chilled water at a minimum of 20 gpm for best efficiency, or 85°F cooling (tower) water at 90 gpm at somewhat reduced efficiency.

In-line fan of corrosion resistant coated aluminum with .75 hp TEFC motor, PVC connecting ductwork between the Aqualogic Evaporator and CRU unit. Custom ductwork is available for connection to other evaporators.

Spray washdown header system, including PVC pipe and nozzle assembly and spray pump for periodic washdown of condensing coils using collected condensate.

Engineering Data:

Plenum Construction	Polypropylene, 38" x 77" x 40"h
Ductwork Connectors	Gray Type I PVC
Heat Exchanger	Fin-tube type, 316 Stainless Steel, 260,000Btuh capacity when operated at design conditions.
Fan	.75 hp, TEFC motor, coated aluminum.
Reservoir pump	Polypropylene, 1/15 hp

Stainless Steel offers resistance to moderate levels of acidic or strong basic chemistries. Coil life may be affected by concentrating processes which fume or mist. Chemical constituents which are gases dissolved in water may condense on the coil and affect condenser life. (Typical of these chemicals are hydrochloric acid, nitric acid, and ammonium hydroxide.) Due to the variety of chemical atmospheres to which the coils may be exposed, no warranty against corrosive attack is provided, only the manufacturer's standard warranty against defects and workmanship. Options available such as mesh pads or pH controlled spray downs will extend coil life, but may affect the quality of the recovered condensate. Consult Aqualogic concerning application.

- * The quality of the recovered water for reuse may be materially affected when chemicals such as hydrochloric acid, nitric acid, or ammonia are in the solution being evaporated. These gasses will be vaporized and condense in the recovered water. This not only may affect the reuse of the water, but also the life of the condensing coil.

NOTE:Evaporation/recovery rates are affected by heat and cooling inputs to the system, and specific heat of the solution in the evaporator.