

## Atmospheric Evaporator

*The Completely Unitized  
Low Temperature  
Chemical Recovery and Wastewater  
Minimization System for Aqueous  
Solutions that Reduces Liquid  
Volumes 98% or More.*

### **Atmospheric Evaporation:**

Forced air blows through a cone of warmed atomized solution, evaporating pure water from droplet surfaces, and then flows through the chevron mist eliminator and out the exhaust duct as humid air. Chemically concentrated liquid is recycled to the heated reservoir tank.

### **Recovery:**

The concentrate is returned to the process bath  
Or eventually pumped out for disposal.

### **Safety:**

Heating with steam or hot water eliminates the potential for igniting oils and greases. Electric coils are fully immersed and direct fired gas units exhaust external to the liquid. The Evaporator operates at 155° F or less to minimize misting of alkalis and acids or heat degradation of recoverable organics.

### **High Performance:**

The Evaporator is sized to deliver consistent evaporation rates of 2 - 45 GPH; based upon solution properties and BTUH input.

#### **Typical Applications:**

Drag-Out Rinses  
Batch System Liquid  
Filtered Vibratory Waste  
Mop Water

#### **Concentrate and Recover**

Ion-Exchange Regenerants  
Spent Cleaners  
Scrubber Water  
Floor Spills

or

#### **Evaporate and Dispose:**

R.O. Reject Streams  
Compressor Blowdown  
Boiler, Cooling Tower Blowdown  
Water Based Coolant



**Automatic Hot Water Heated Evaporator**

**UNITIZED DESIGN, CHEMICAL  
RESISTANT CONSTRUCTION FOR  
TOUGH APPLICATIONS**

The Aqualogic Evaporator arrives completely assembled, not as a do-it-yourself kit of unassembled pieces. With its' sturdy, seamless polypropylene construction, titanium steam coils and low temp operation, the Evaporator can handle acids and bases, chlorides and fluorides that eat up even stainless steel. Electrically heated units are standard 316 SS with titanium optional. If pH or ORP adjustment is required, the Evaporator can be equipped with automatic controls.

### FEATURES

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Each Aqualogic™ Evaporator System unit comes fully equipped with blower, motors, pump, full-width chevron mist eliminator, and a Control Panel.

### ENGINEERING DATA

#### Fully Equipped System includes:

1. Body of Evaporator constructed of 1/2" thick Polypropylene, with heat-formed corners and fusion welded sides for seamless construction.
2. Self-contained 290 gallon reservoir.
3. 3000 CFM Blower with 1.5 h.p. motor, and full width, low velocity chevron mist eliminator.
4. Vertical shaft, sealless, CPVC, recirculation pump with 2-hp TEFC motor.
5. Manual Control Panel with IEC rated switches, low level cutoff, and motor starters. The equipment is housed in a non-metallic NEMA 4X enclosure and is mounted on the evaporator.

Evaporation Rate:	2 gph-45 gph
Steam Requirement:	15 psi at the coils
BTUH In-put required	150,000-200,000
With Optional Coils:	300,000-400,000
Electrical Service:	460 V/3/60
Steam heat	5 KW
Electric heat	25-45 KW
Dimensions:	56" x 96" x 64"h

#### **Option for Chrome Recovery**

For recovery of hexavalent Chrome, the Evaporator is constructed with a PVC-lined Stainless Steel lower body, with titanium or teflon coils, and a PVC upper body. Call for special pricing.

### OPTIONAL EQUIPMENT AND ACCESSORIES

1. **Integrated Control Panel:** Includes IEC rated switches and motor starters, control relays interlocked with time delay for blower control. Housed in a NEMA 4X enclosure mounted on the evaporator.
2. **Increased Evaporation:** Two additional titanium steam or hot water heating coils mounted to the welded manifolds.
3. **Gas or Electric heating:** Electric immersion heaters or gas burner tube sized for the required evaporation rate.
4. **Electronic Temperature and level controls:** Includes a digital electronic temperature controller with a J-type thermocouple, 2" brass electric solenoid valve, and full level control with contacts for connection to clients feed pumps. Allows for automatic operation without operator involvement.
5. **Boiler:** Aqualogic will provide a 450,000 BTUH output hot water boiler, as either oil, gas, or propane fired. Boilers are shipped pre-packaged for ease of installation, and include circulator pump and accessories.
6. **Pre-mounted Transfer System:** For convenience of operation and installation, Aqualogic will provide two pumps mounted on shelves attached to the evaporator, and complete with controls and valves with one pump interlocked with Evaporator level control for filling Evaporator, one manually operated for discharge to disposal.
7. **Oil water coalescer:** One (1) MODEL aq/1 Oil/water 1 GPM coalescing separator to remove all non-emulsified oils. Complete with an air operated return pump, sump tank, and polypropylene coalescing plates.
8. **pH Control system:** For maintaining the pH to minimizing precipitation and permit greater concentration, or to neutralize corrosive chemistry and protect the equipment. Includes probe, panel-mounted instrument and one chemical metering pump for either caustic or acid. (ORP Control is also available.)