

## Lakeview Wastewater Evaporator

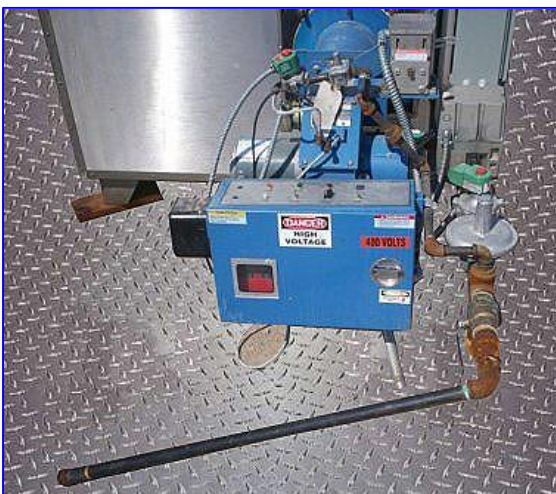
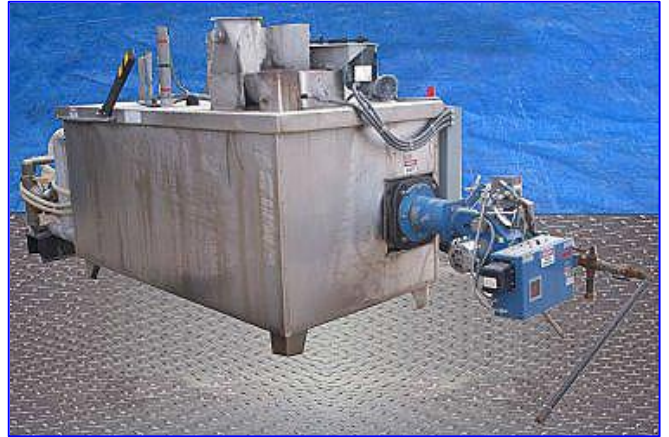
Mfg: Lakeview

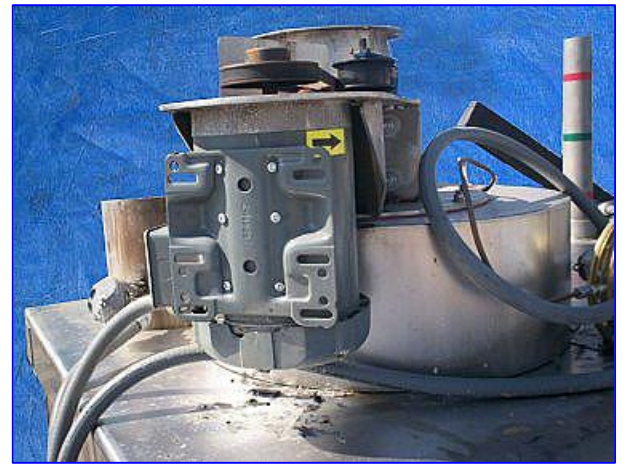
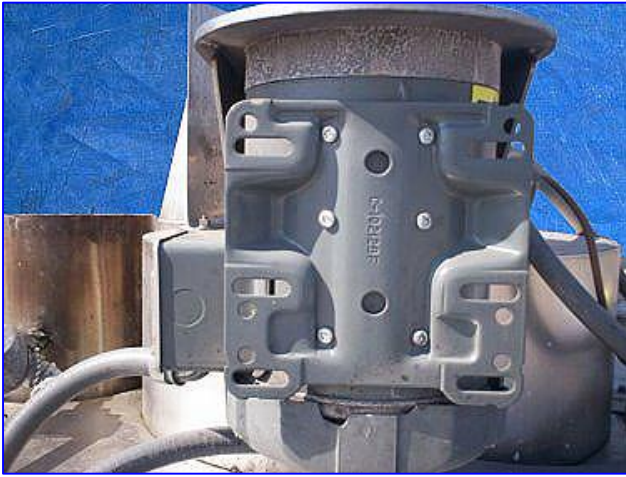
Model: 600-XLT

Stock No. DPLS686.23

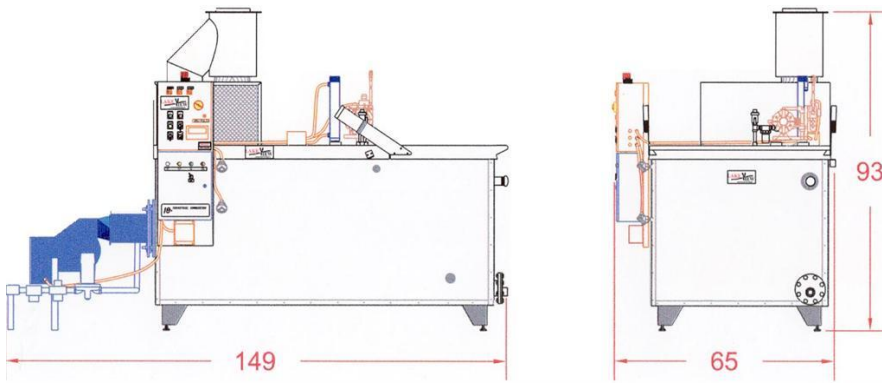
Serial No. 040903-135

2003 Lake View Waste Water Evaporator. Model: 600-XLT. S/N: 040903-135. Rated to go up to 90 gph @ 1,120,000 BTU/hr. Gas fired wastewater evaporator. Designed to operate on natural gas or propane. Marathon Electric motor: 3/4 . 1/2 hp, 3450-2850, 208-230-460 V, 60-50 hz, 3 phase. Weg Electric Motor, 1-1/2 hp, 1725 rpm, 208-230/460 V, 60 hz. Bottom pump and motor: Impeller Diameter: 4-1/2 in., 1-1/2 hp, 3450 rpm, 230/460 V, 4.6/2.3 amps, 3 phase. Inlet: (1) 8 in. diameter. Outlet: (1) 8 in., (1) 9-1/4, (1) 4-1/2 in., (1) 1-1/2 in. Overall Dimensions: 152 in. L x 66 in. W x 73-1/2 in. H.









## LAKEVIEW EVAPORATORS -- STANDARD SPECIFICATIONS / FEATURES

**Evaporator tank** - 10 gauge, 316L stainless steel standard

**Evaporator heat exchanger tube** - polished, large diameter, 10 gauge, 316L stainless steel standard

**Access lid and blower lid** - 304L stainless steel construction for all wetted parts

**Evaporator tank insulation** - all sides insulated, 2+foil backed 850°F rated, .30 conductivity, .043SI unit

**Exhaust blower housing** - heavy gauge, tig welded stainless steel, belt driven, greasable pillow blocks

**Evaporator impeller** - self-cleaning, backward inclined radial blade, stainless steel construction

**Evaporator stack connection** - 14+I.D. flanged

**Blower motor** - 3hp, 3ph, 3450rpm

**Industrial burner** - forced draft power burner, FM rated full modulation

**Wastewater transfer pump** - air operated (1") pump float operated ball valve

**Evaporator control panel** - industrial duty NEMA4 rating

**Wastewater level control** - high/low level float microswitch assembly

**Coalescing filter** - galvanized steel mesh at water vapor exhaust blower inlet

**Evaporator clean-out** - 4+NPT clean out port at evaporator bottom

**Evaporator skimming weir** - drains through 2+port

**Y-Section** -- connection evaporates water vapor through inner stack, burner exhaust through outer stack

**Blower Guard** -- safety cage surrounds the blower, blower motor, drive belt, and evaporator stack

**EVAPORATOR TANK** - The entire evaporator tank, both interior and exterior, is constructed of stainless steel. Polished stainless steel outer skin, when properly maintained, looks like new indefinitely. Standard construction for all units - 10 gauge (.140") grade 316L stainless steel - offers excellent resistance to a wide range of corrosives in wastewater and atmospheric exposures, high temperature strength.

**EVAPORATOR HEAT EXCHANGER TUBE** -- Polished, large diameter, tubular 10 gauge, 316L stainless steel standard construction (other alloys available), reducing diameter over tube length to maintain scrubbing velocity for high efficiency. Tig welded, tuned for high heat transfer efficiency, and designed for ease of cleaning and evaporator tank bottom access. Exiting tube section is shrouded to prevent wastewater fluid surface fouling.

**ACCESS LID and BLOWER LID** -- 304L stainless steel construction for all wetted parts. Exhaust air inlet keeps access evaporator lid cool to the touch. Lid is counter-weighted for operator safety.

**EVAPORATOR TANK INSULATION** -- All evaporator tank sides are insulated with 2" foil backed, 850°F rated, .30 conductivity, 0431SI unit.

**EXHAUST BLOWER HOUSING** -- Designed specifically to evaporate vapor exhaust. Belt driven with self-adjusting belt tensioner and speed variable depending on evaporator model application. Utilizes two heavy duty, greasable pillow block bearings. Blower housing is all heavy gauge, tig welded, 304 stainless steel construction for long life. The belt driven blower eliminates transference of vibration and heat.

**EVAPORATOR IMPELLER** -- All stainless steel constructed impeller with 5-year warranty. The impeller is self-cleaning, backward inclined radial blade design that is electronically balanced for long continuous duty.

**EVAPORATOR STACK CONNECTION** -- 9" ID flanged on E-100 to E-300, 14" ID flanged on E-300 XLT and above.

**BLOWER MOTOR** -- 3/4hp, 3ph, 1725rpm on E-100 to E-300; 1-1/2hp, 3ph, 1725rpm on E-300 XLT to E-750 XLT; 3hp, 3ph, 3450rpm on E-900 and above.

**POWER BURNER** -- Forced draft burner for positive combustion that maintains efficiency by minimizing the effect of air pressure changes around the evaporator. A power burner is the highest efficiency and most reliable burner that can be utilized on industrial equipment. Standard burners are manufactured to UL/CSD-1 requirement. IRI, FM, and CSA control options are also available.

**WASTEWATER TRANSFER PUMP** -- Wastewater fluid level control is maintained by a float operated ball valve. Wastewater is pumped by the air operated transfer pump from a wastewater storage tank to the evaporator. When the wastewater fluid level is low in the evaporator, the pump forces fluid through the valve. As the wastewater fluid level rises, the float ball rises on the surface of the fluid closing the valve. When the evaporator tank is full, the air pump stalls against the closed valve. Wastewater fluid level, by this method, is maintained at a constant level without large volumes of wastewater introduced to the evaporator to cool and upset the fluid already in the evaporator tank. This results in an efficient, steady state of operation. Air operated diaphragm pumps - 1/2" FPT on E-100 to E-600; 1" FPT on E-750 and above.

**EVAPORATOR CONTROL PANEL** -- Industrial duty panel with NEMA4 rating. Standard safety disconnect, red flashing warning beacon, all controls and indicators for operation, manual reset button, and digital temperature controllers monitor fluid. Optional features include digital read out and controls for overspray foam system, other NEMA ratings, remote panels, and PLC automation.

**WASTEWATER LEVEL CONTROL** -- Redundancy level control is achieved by the use of a stainless steel lever arm float valve assembly and high/low level float switch assembly. The float valve assembly provides stable continuous feed into the evaporator, while the high/low level float switch monitors wastewater fluid level extremes and will shut down the burner, feed pump, and indicate an alarm fault condition. Surface operating floats ignore foam and are not affected by fouling fluid concentrations or temperatures. The level switch also allows for sill control upon start up and auto restart.

**COALESCING FILTER** -- Located at the inlet to the water vapor exhaust blower to capture droplets that might be drawn up the evaporator stack. This minimizes carry over of oils or particulates to the atmosphere. It is easily removed for cleaning or replacement when dirty. High density mist eliminator pads are also available for capturing 10 micron particulate.

**EVAPORATOR CLEAN OUT** -- The 4" NPT clean out port is located at the low point of the flat, sloped bottom for easy clean out of the evaporator. Both the oil skimming weir and clean out port may be connected to the skimmer/sludge pump option with the 2" NPT reducer provided.

**EVAPORATOR SKIMMING WEIR** -- The oil skimming weir drains through a 2" port located at the right height for a standard barrel placed on the floor, or piping can be easily installed to direct the oil to a destination. The flat sloped bottom is designed for easy cleaning. No complicated bottom geometry to create cleaning problems.

**Y-SECTION** -- Two-in-one double wall evaporator stack connection to evaporate water vapor through the inner stack and burner exhaust through the outer stack.

**BLOWER GUARD** -- Safety cage surrounds the blower, blower motor, drive belt, and stack. This protects personnel from heated and moving parts of the evaporator.

### **LAKEVIEW EVAPORATORS -- STANDARD SAFETY FEATURES**

- \* **Industrial safety disconnect at evaporator**
- \* **Air-cooled, counter-weighted access lid**
- \* **Safety circuitry and manual reset**
- \* **Flame safety monitoring burner flame**
- \* **Safety cage around hot/moving parts**
- \* **Wastewater temperature monitor**
- \* **Heat exchanger temperature monitor**
- \* **Redundant safety and wastewater level controls**