SMI 120F EVAPORATOR





OVERVIEW

The SMI® 120F is a floating mechanical Evaporator, specifically designed for small ponds where the end user is concerned about controlling wet and dry particulate drift. The 120F Evaporator is simple to use, easy to maintain, and constructed from high grade materials for years of reliable operation.

BENEFITS

Low Buildup: Designed with a minimal amount of top surface area to control the build-up of residue and scale, helping to reduce clean up and maintenance!

High Performance: High-speed fan blade rotation creates an optimum water droplet distribution for evaporation. Annual evaporation rates up to 70% could be achieved and averages will typically be between 25% and 60%.*

Easy Maintenance: The machine is designed for easy cleaning and maintenance. It requires no weekly bearing lubrication, as it is lubricated for the life of the motor. Pump is fitted with a static inlet filter that can be removed for cleaning. Pump sleeve is designed with a viewing port to simplify inspecting for scale build-up and obstructions in the pump inlet.

Minimal Clogging: The SMI® 120F can pass particles up to 3/16 inch (4.7 mm) in diameter, which reduces the need for prefiltering, filter cleaning and the hassles of clogged nozzles.

Extreme Duty: This design has evolved from 20 years of experience in industrial and extreme outdoor applications. Polyethylene pontoons are filled with closed-cell polyurethane foam, ensuring buoyancy even after any accidental puncturing of the plastic outer shell. Critical components are manufactured from stainless steel for extended life in harsh environments. "Corrosion package" upgrade is available for all stainless steel construction for high and low pH applications.

FEATURES

Floating unit supported by plastic pontoons containing closed-cell PU foam.

Head adjusts at increments from 0 to 90 degrees to allow a lower plume height to reduce drift distance, and thus reduce shut-downs due to high winds.

Heavy industrial construction, including stainless steel motor enclosure, spray manifold and fan blade, increasing durability and equipment life span.

Optional vibration sensor available to shut down motor before catastrophic failure due to residue or ice build-up.

304 stainless steel submersible pump attached to floating frame with integrated static filter and viewing port for ease of maintenance and inspection.



**Evaporation rates depend on many factors including ambient temperature, relative humidity, water makeup and chemistry, wind conditions, solar radiation and site topography.*

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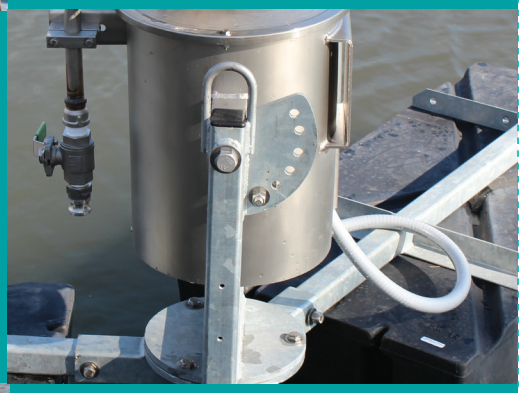
Close up of UV stabilized pontoon filled with closed cell PU Foam



Optional vibration switch to automatically shutdown the fan from scale build-up on the propeller and protect from premature motor failure from fan imbalance. Comes housed in a second enclosure to provide additional protection against water ingress.



Water shield covering junction box to provide dual protection for water ingress to electrical terminations



Indexable head for fan inclination of 0-90 degrees



Pump holder for ease of pump inspection and maintenance

SPECIFICATIONS

Fan and Head Assembly

- Stainless steel patented fan
- Stainless steel enclosure protects fan motor from water ingress and exposure to harsh waste water
- Optional vibration sensor to protect motor from propeller imbalance

Floats and Mount

- Galvanized steel frame structure assembled with stainless steel fasteners
- (3) UV stabilized pontoons filled closed cell PU foam

Water System

- 1/2 HP (0.37 kW) stainless steel submersible pump
- Pump options: 460V / 60HZ, 380-415V / 50HZ, or 575V /60HZ
- Stainless steel spray manifold with large holes to allow large particles to pass
- Ball valve to regulate flow to spray manifold for changing weather conditions on manual units; pump VFD to temperature/humidity algorithm for auto units

Electrical

- 5 HP (3.7 kW) Premium efficiency fan motor
- Fan motor rotates at 3600 RPM at 480 or 575 volts, 3 phase, 60 cycle power or 2900 RPM at 380-415 volts 50 cycle power
- Nema 4X control panel with manual, standalone or premium automated controls
- Submersible rated electrical power cord, length per customer requirements

Warranty

- 6 month warranty on any defective parts and workmanship

Options

- "Corrosion Package" for upgrading galvanized mount to all stainless steel construction for acidic or highly alkaline water applications
- Standalone Automation: local machine control and customer interface, pump VFD varies based upon temperature/humidity algorithm and wind speed / direction start-up and shutdown
- Premium Automation – local and remote machine control and customer interface, pump VFD varies based upon temperature/humidity algorithm, wind speed direction start-up and shutdown, camera to monitor equipment, SmartH2O software with Desktop PC that provides reporting, trending, alarms and remote control.
- Vibration sensor for motor shut down due to fan imbalance from deposits or scale buildup

SMI Evaporative Solutions

SMI Evaporative Solutions
1512 North Rockwell Dr.
Midland, MI 48642
+1.989.631.6091
+1-800-248-6600
evapor.com

TELEMET
Efficiency Through Simplicity™

Advice, spare parts and service

Telemet · Office in Chile

Los Canteros 8723, La Reina, Santiago 7880414, Chile

Phone +56 22 356 2735

info@telemet.com

telemet.com