

# SMI 420F EVAPORATOR



## OVERVIEW

The SMI® 420F Evaporator is a floating unit, designed for effective operation in small areas, especially sites containing large particles or highly corrosive water. The 420F Evaporator is durable, simple to use and easy to maintain – a reliable way to manage excess water.

## BENEFITS

**Low Buildup:** the SMI® 420F Evaporator is designed with a minimal amount of top surface area to control the build-up of residue or ice, 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% have been achieved with the 420F, and averages are typically between 25% and 60%. Evaporation rates depend on many factors, including ambient temperature, relative humidity, water make-up and wind conditions.

**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.

**Minimal Clogging:** The SMI® 420F Evaporator can pass particles up to 3/16 inch (4.7 mm) in diameter, which reduces the need for pre-filtering, filter cleaning and the hassles of clogged nozzles.

**Extreme Duty:** This design has evolved from 10 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.

## FEATURES

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

**Low plume height** for shorter drift distance, allowing longer operation in swirling or changing winds

**Heavy industrial** construction, including stainless control panel, motor enclosure, manifold and fan blade, increasing durability and life span

**Vibration sensor** included to shut down motor before catastrophic failure due to residue or ice build-up

**Stainless steel submersible pump** attached to floating frame



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Fan



Frame



Pontoon



## SPECIFICATIONS

### Fan and Head System

- 25 HP industrial grade world motor (for 3 phase / 480 volt / 60 cycle and 3 phase / 400 volt / 50 cycle power; motors for other voltages available upon request)
- Stainless steel casing protects motor and enhances cooling
- Patented stainless steel fan blades (optional scale-resistant coating)
- Vibration sensor for motor shut off

### Floating Platform

- Galvanized steel construction with stainless steel fasteners
- Plastic pontoon composed of UV-stabilized polyethylene shell with closed-cell polyurethane foam
- 7.5 HP submersible stainless steel pump for 3 phase / 480 volt / 60 cycle power (specified for 80 gpm (303 lpm) at 100 psi (7 bar))

### Water System

- Standard flow, stainless steel water manifold for average evaporation conditions. Designed for flow rate of 66 gpm (250 lpm) at 100 psi (7 bar) water pressure

### Electrical

- 25 HP premium efficiency fan motor rotating at 3600 rpm (480 volt / 60 cycle) or 2900 rpm (400 volt / 50 cycle)
- Stainless Steel control panel with start and stop buttons
- 150 foot (45 m) electrical cord

### Warranty

- Full one year warranty on all parts and workmanship

### Options

- For acidic or high-alkaline water applications, stainless steel construction and acid-resistant coating
- Special scale-resistant coating on fan to reduce residue build-up on blades
- 10 HP submersible stainless steel pump for 3 phase / 400 volt / 50 cycle
- Optional high flow, stainless steel water manifold for above average evaporation. Designed for flow rate of 91 gpm (344 lpm) at 100 psi (7 bar) water pressure
- Y-line manual flush filter for dirtier water



SMI Evaporative Solutions  
1512 Rockwell Drive  
Midland, MI 48642  
Phone: 989-631-6091  
Toll-Free: 1-800-248-6600  
Fax: 989-631-3162  
Website: [www.evapor.com](http://www.evapor.com)