# 420B Evaporator





### **OVERVIEW**

The SMI<sup>®</sup> 420B Evaporator is a land-based unit, designed to simply and reliably evaporate excess water in a variety of pond sizes, especially sites containing large particles or highly corrosive water. The 420B Evaporator is durable, simple to use and easy to maintain – a reliable way to manage your excess water.

## **BENEFITS**

**Flexible Operation:** The SMI 420B Evaporator can be operated vertically upright or angled over the pond by manually lowering or raising the boom. The machine can function in virtually any wind conditions, as it is not sensitive to blow back.

**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 average rates typically between 25 and 60%. Evaporation rates depend upon many factors, including ambient temperature, relative humidity, water make-up and wind.

**Easy Maintenance:** Designed for easy cleaning and maintenance, this unit requires no weekly bearing lubrication, as it is lubricated for the life of the motor.

**Minimal Clogging:** The SMI<sup>®</sup> 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. Critical components are manufactured from stainless steel for extended life in harsh environments.

# **FEATURES**

**Flexible plume height** to adjust droplet drift for greater efficiency in swirling or constantly changing winds and higher evaporation rates due to longer hang time

**Heavy industrial** construction, including stainless control panel, motor enclosure, manifold and fan blade for increased durability and service life

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



# 420B





# **SPECIFICATIONS**

#### Fan and Head Assembly

- Stainless steel 20 inch diameter 12 blade patented fan
- Stainless steel enclosure protects fan motor and enhances cooling
- Vibration sensor for motor shut down due to fan imbalance

#### Boom, Platform and Base

- Fan stands 20 feet in air in full upright position
- Galvanized steel frame work with stainless steel fasteners
- Base has a 8' X 8' footprint
- One ton free standing concrete counterweight system
- Easy to use jack to raise and lower boom

#### Water System

Stainless steel spray manifold, designed to provide 66 GPM (250 LPM) at 100 PSI (7 Bar) water pressure
Ball valve to control flow to spray manifold due to changing weather conditions

#### Electrical

- 25 HP Premium efficiency fan motor
- Fan motor rotates at 3600 RPM at 480 volt, 3 phase,
- 60 cycle power or 2900 RPM at 400 volt, 50 cycle power
- Stainless steel control panel with start and stop buttons
- 150 feet (45 M) electrical power cord

#### Warranty

■ 6 month warranty on all parts and workmanship

#### Options

- For acidic or high-alkaline water applications, stainless steel construction and acid resistant coating
- 180 degree option available for boom
- Y-line manual flush filter for dirtier water
- Automation, shut down and startup of evaporator due to wind speed and direction, temperature and humidity

