# Mechanical







## Water Fracturing Technology

SMI's proprietary fan design introduces water to the blade edges, fracturing water by the unique blade shape and high tip speed, then projecting the water into the air. Water fracturing evaporators can be land-based or floating on pontoons.

## **420F Evaporators**

The SMI 420 F Evaporator is our floating unit, designed for effective operation in small areas, especially sites containing large particles or highly corrosive water. High-speed fan blade rotation creates an optimum water droplet distribution for evaporation. The 420 F Evaporator is situated in the center of the reservoir, with the goal of containing un-evaporated liquids or solids within the permitted area.

### **420B Evaporators**

The SMI 420 B 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 420 B is particularly suited for larger adjacent ponds with a dike in between where the boom can be rotated 180 degrees to spray water on either side depending upon wind.

420 Evaporators are designed for low buildup, high performance, easy maintenance, minimal clogging and extreme duty.

420 Evaporators are available in manual, standalone automated or premium automation with SMI's Smart H2O software.

Annual evaporation rates up to 90% have been achieved with the 420, and averages are typically between 25% and 60%. Evaporation rates depend on many factors, including ambient temperature, relative hand wind conditions.

## Mechanical







## Water Atomizing Technology

Air is compressed via a fan through a tapered barrel, propelling controlled-size water droplets created via nozzles. This technology is best for larger areas where wastewater contains lower dissolved solids or smaller to no particulates.

## **Kid PoleCat Evaporators**

The SMI Kid PoleCat Evaporator is a short-throw (100 feet/30 meters) machine, designed for simple and reliable operation in small areas.

### **Super PoleCat Evaporators**

The SMI Super PoleCat Evaporator is a long-throw design (over 200 feet/61 meters) that efficiently and reliably evaporates excess water in large areas.

## **Mega PoleCat Evaporators**

The SMI Mega PoleCat Evaporator is the big throw machine (over 350 feet/105 meters) that will evaporate water over large areas and in big volumes.

All SMI PoleCat models are designed for mobility, excellent performance, easy maintenance, extreme duty and energy efficiency.

PoleCat Evaporators are available in manual control or automated to start/stop the equipment due to high winds or unfavorable wind direction.



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