

# Success Story

Application: Process Cooling Water

Industry Classification: Food Processing



**Background:** A processor of artificial flavors and fragrances was seeking a filtration solution to keeping its tower water clean to protect its process-cooling loop. At the time, no filtration was being used and they were evaluating several options including the Zero Gravity Filter System, other automatic type filters, and bag filters.

A 30-day trial with a pneumatic Phoenix was conducted on the tower pond (above photo). The filter, located in an outdoor environment, was able to keep the pond clean, providing uninterrupted service, and no bag maintenance. Within 8 days of the trial, the Phoenix greatly improved the water quality of the cooling tower pond.

**Solution:** Provide a complete pneumatic phoenix and pump combination mounted on a skid, side streaming the cooling tower pond. Explosion proof environment requiring explosion proof differential pressure switch and pump motor. Three 1.5" eductor nozzles are fitted to the filter's discharge to stir the tower pond. System flow rate is 1,100 gpm.

Application Details:

Side Stream

Flow Rate: 180 gpm

Micron Rating: 50 micron

Filter Specifications:

Filter: Pneumatic Phoenix

Pump: Grundfos, 10 hp

**Results:** Maintained cleanliness of process cooling loop while protecting plate heat exchangers. Cooling tower pond is visually cleaner.

**Date:** December 7, 2000