

Cleaning Cooling Towers, Chillers & Process Reservoirs

Have a Dirty Tower, Chiller or Reservoir?

Follow the steps below to achieve superb cleanliness!

- (1) Thoroughly drain, flush, and refill the system with fresh water. Do not disconnect the process (unless directed otherwise); allow water/cleaning solution to contact all parts of the system.
- (2) After draining, flushing, refilling, add sufficient quantity of Spare Parts Express industrial cleaner to achieve 5-20% concentration. Add 5-20 gallons of industrial cleaner per 100 gallons of bulk water. Let the re-circulating pumps circulate through the system 4-6 hours. If possible, heat the bulk water to a temperature between 85°F to 105°F. If your system is severely fouled, it may be necessary to repeat this procedure.
- (3) Use a soft bristle brush to clean the reservoir sides, baffles, and other components of the reservoir.
- (4) If a heat source was used, remove it from the bulk water. Repeatedly drain, flush, and refill the reservoir with fresh water. Re-circulate the water to allow dirt and particles to return to the reservoir. The cleaning solution imparts a light green color to the water; drain, flush, refill the system until the green color is completely discharged. Use a wet vacuum or other appropriate device to remove all debris, dirt, or other materials that have accumulated at the bottom of the tank during cleaning.
- (5) Refill the system with fresh water. *Pay close attention to pump seals and valves—sometimes the cleaning process will remove debris from these areas causing leaks and eventual failure of the seal. Be prepared to replace seals and valves after the cleaning process is completed!*

Required Materials & Part Numbers

- Spare Parts Express Industrial Cleaning Solution, PN A0553840
- Spare Parts Express Antifoam Solution
- Spare Parts Express Inhibitor 2500CL, PN A0553842 (closed loop treatment)
- Spare Parts Express Inhibitor 2000H or 2000L (cooling tower treatment)
- Spare parts express Ethylene or Propylene Glycol Solutions (inhibited)—for freeze protection
- Samples bottles

Use These Helpful Hints to Maximize the Efficiency of the Cleaning Process!

- To save time and money spent on chemical cleaners, refill the system to the lowest operating volume.
- The recommended cleaning solution is very gentle and will not harm most industrial process equipment, valves, impellers, etc.
- Foaming will occur in most systems. Add Spare Parts Express Antifoam as needed to control the foam and prevent pump cavitation.
- If pH paper, pH meter, or another pH measuring device is available, maintain a pH of 4 to 6 in the bulk water by adding additional industrial cleaner.
- If metallic oxides and other mud-like materials are present, scrape the materials from the reservoir sides—make sure the debris does not fall back into the reservoir!
- Some systems may require de-ionized or other pure water—check with the manufacturer to determine the water quality required for your processes.

More Helpful Advice for Servicing Your Equipment!

Chillers/Closed Loop Systems

- Add the appropriate inhibitor to the system immediately.
- Add glycol solutions to the bulk water if freeze protection is required.
- Return the system to operation and collect a sample of 8 – 10 fl. oz. of bulk water; submit to manufacturer's water lab for testing.



0.5 – 1.5 hp Portable Chiller

Cooling Tower Systems

- Depending on the design, the tower fill material may require cleaning using a low-medium pressure washer. Use care to prevent material from entering the bulk water. Some towers will require the removal of distributors (if equipped).
- Add cooling tower scale and corrosion inhibitor to the system at an appropriate time after cleaning.
- Collect a water sample from the system and submit it to the manufacturer's water lab for testing.



Cooling Tower Pump Tank System