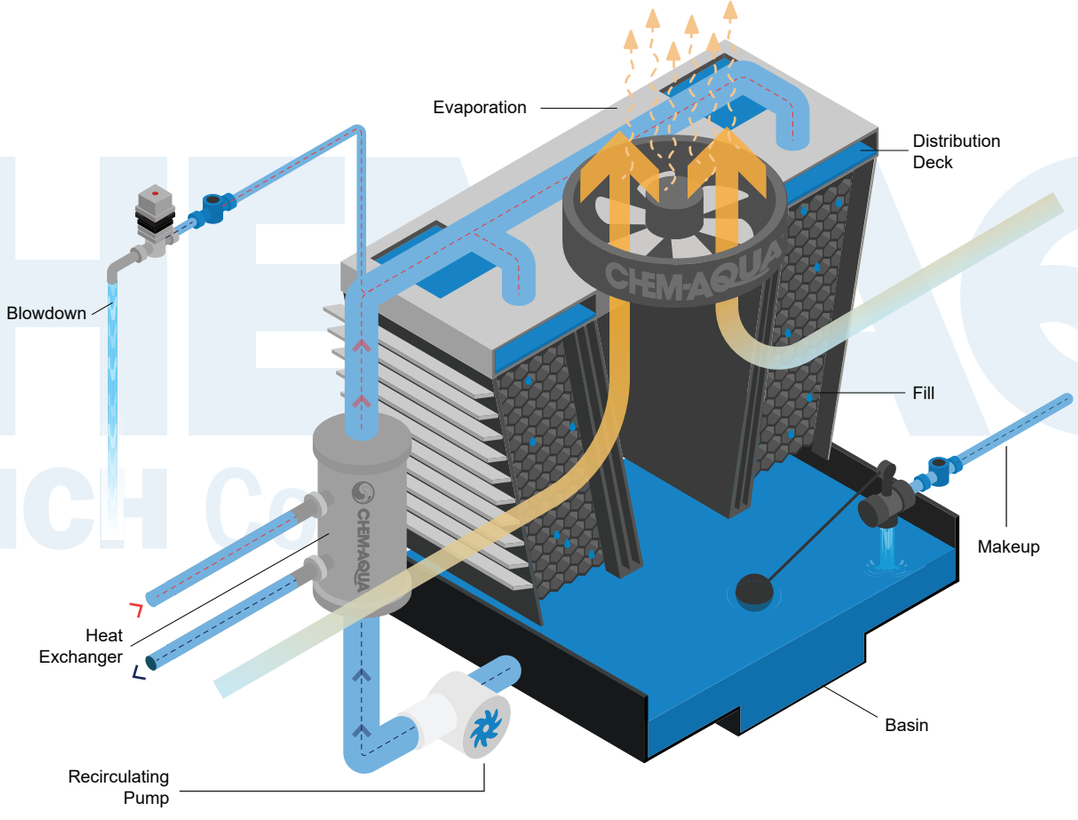
HOW COOLING TOWERS WORK

Cooling towers are used to remove heat from building HVAC systems and industrial processes, but require specialized maintenance to achieve maximum benefits.

Chem-Aqua is committed to helping you understand the operation of your cooling tower system so you can extend its life, efficiency, and reliability.

1. Cooled water from the **basin** is **pumped** through the **heat exchanger**.
2. The water picks up heat, then flows over the top of the tower through the **distribution decks**.
3. As air moves over the falling water through the **fill**, a portion is **evaporated**.
4. This cools the remaining water, which then recirculates.
5. Dissolved impurities left behind after the water evaporates can cause scale, deposits, and corrosion.



6. Controlled **blowdown** through a valve removes the dissolved impurities.
7. **Evaporation** and **blowdown** cause the basin water level to drop, so **makeup** water must be added.
8. Other water losses can occur through drift, overflow, and process leaks.
9. **Makeup** sources include surface or well water from municipal suppliers, reclaimed wastewater, air handler condensate, etc. used alone or in combination.