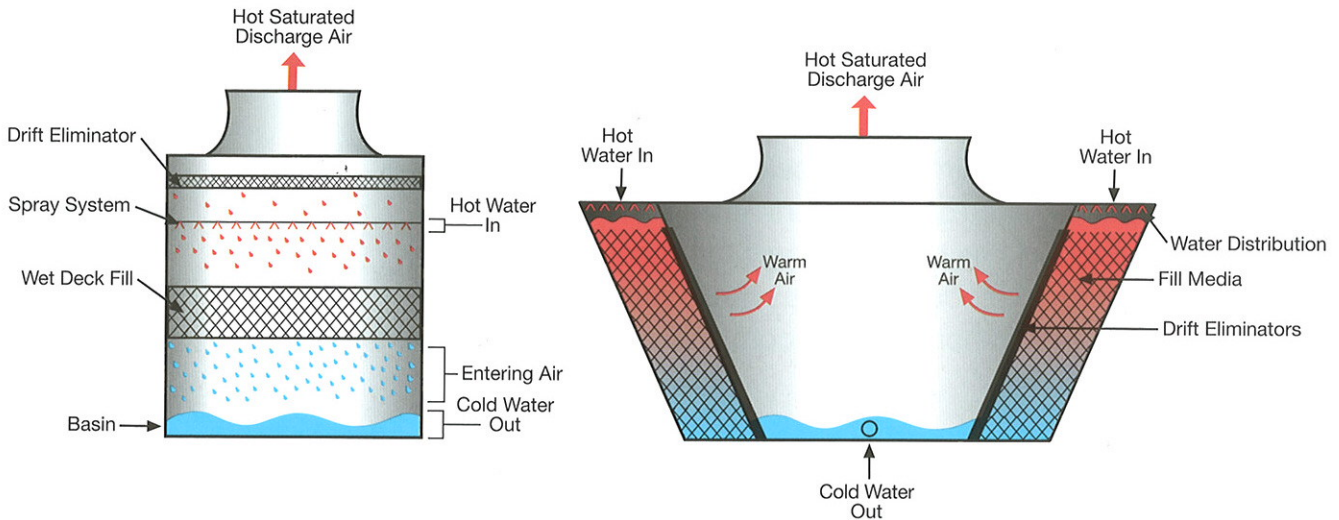


Cooling Tower Principle of Operation

Cooling towers come in many different shapes and sizes. They range from small two-ton factory assembled models to large field erected towers capable of rejecting thousands of BTU of heat. Although the shapes and sizes can vary, the principle of operation remains the same.



Warm water from the heat source is pumped to the water distribution system at the top of the tower. The water is distributed over the wet deck fill by means of nozzles. Simultaneously, air is drawn through air inlet louvers and through the wet deck surface causing a small portion of the water to evaporate. The evaporative process removes heat from the water. The warm moist air is drawn out of the top of the tower. The resulting cold water is then recirculated back through the heat source in a continuous cycle.

The internal components of the cooling tower represent the core of the heat transfer efficiency. Different models utilize various components to achieve the best results. However, over time the components can wear out, become fouled or perhaps the site conditions or process has changed and the original components no longer fit the need. Tower Components offers a wide variety of cooling tower products that can be custom selected for new and existing cooling towers. Just as a cooling tower has a principle of operation, each component has a specific principle of operation specifically suited to operating conditions.