

# POWER INDUSTRY

## Power Plant Evaporative Condenser

The evaporative condenser is mainly composed of four parts: heat exchange system, water circulation system, axial fan, and support frame.

The saturated steam discharged from the steam turbine enters the heat exchange tube to condense and release heat; the spray water outside the tube absorbs the steam in the tube to condense, and after vaporization, it is discharged into the atmosphere under the action of the fan;

The condensed water is collected in the condensed water tank through the pipeline. The non-condensable gas is discharged by the vacuum device

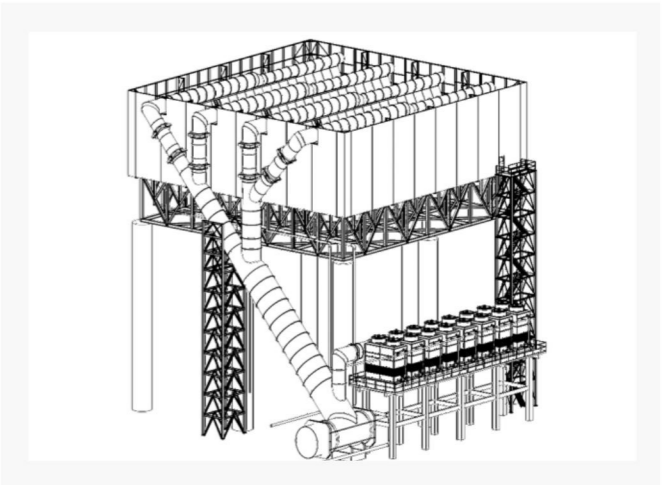
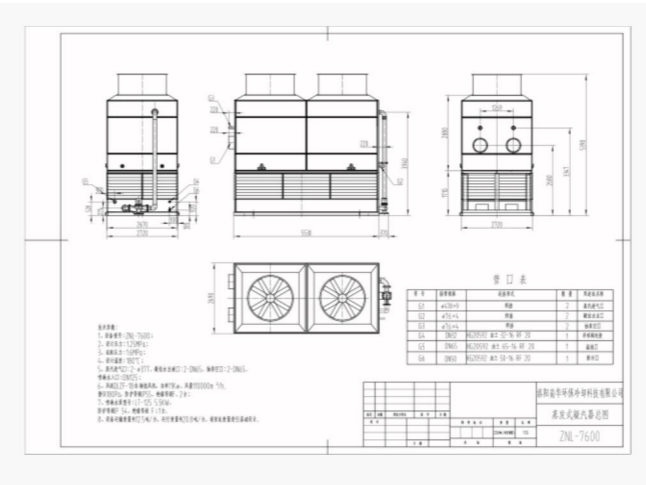




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## System Features

The major difference between a cooling tower and an evaporative condenser lies in the number of stages required to achieve their cooling effects.

For chiller systems that utilize a cooling tower, heat transfer from the cooling process involves two stages. The heat generated by an industrial or commercial process is first transferred to the circulating chiller fluid by the condenser unit before atmospheric heat rejection at the cooling tower. Thus, using chillers and cooling towers together require two levels of heat exchange.

On the other hand, chillers with evaporative condensers achieve similar results by a single heat rejection process which involves the evaporation of heated water from the external surface of the coolant tubing, saving water 30%~50%, save electricity 10%~20%.

## Working Process

