

HYBRID COOLERS OPEN CIRCUIT

COMMERCIAL DOCUMENTATION



Range : Water flow from 70 to 570 m³/h
Power from 1100 to 3300 kW

SIM - ATIM - KSIM Series

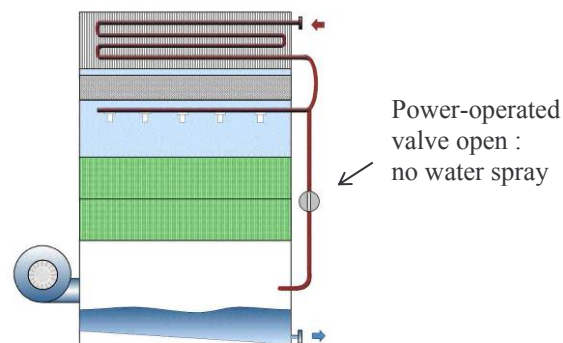
HYBRID COOLER OPEN CIRCUIT: SIM - ATIM - KSIM

Since 1973, S, ATM and KS open cooling towers have originally been designed to fit with a plumeless coil. These ranges are then called SIM, ATIM and KSIM series. The efficiency of the system is secured by a finned tube coil, along with a variable water flow valve on the spraying system over the packing. This regulation of the water flow rate is very unique on the market. Therefore, the combination of the air desaturation by air outlet warming up, and the reduction of the water spray on the packing, guaranties a complete plume suppression. Beyond the plume suppression itself, this system can provide water savings up to 80 % and is an ultimate obstacle to the drifts. This technology engineered by Jacir – Air Traitement has been implemented with Cetiat laboratory more than 30 years ago, and has led to several innovating patents.

Dry operation : WINTER

The by-pass valve is totally open, so the whole water flow leaves directly the tube coil to the basin : there is no water spray on the packing, no water evaporation, so no water consumption.

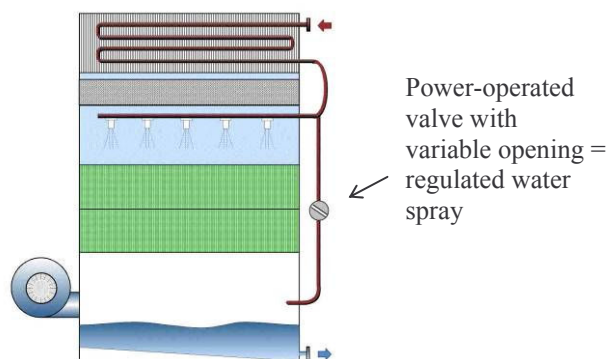
The whole power can be dissipated through the plume suppression coil.



Wet / dry operation : MID SEASON

When the dry cooling is not powerful enough part of the water flow goes to the spraying system thanks to the by pass valve. A temperature probe (option) located in the water outlet send the information to the regulator monitoring the valve. So only the minimum water quantity is sprayed on the packing. This cooling mode lowers the water / air exchange and optimize the power evacuated in the dry coil.

According to the ambient conditions, 30 to 70% of the power can be dissipated in dry mode.

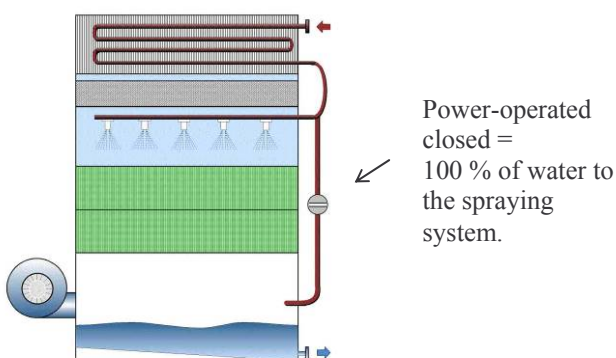


Wet operation : SUMMER

If necessary, the bypass valve is totally closed : the water leaves the tube coil, and can be totally sprayed over the packing.

This water is first cooled by sensitive heat, then by latent heat (evaporation on the exchange surface).

In wet operation, 5 to 10 % of the power is dissipated by the finned tube coil.



NB : The power-operated valve is part of the whole supply of the hybrid cooler

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