Open Cooling Tower (OCT)

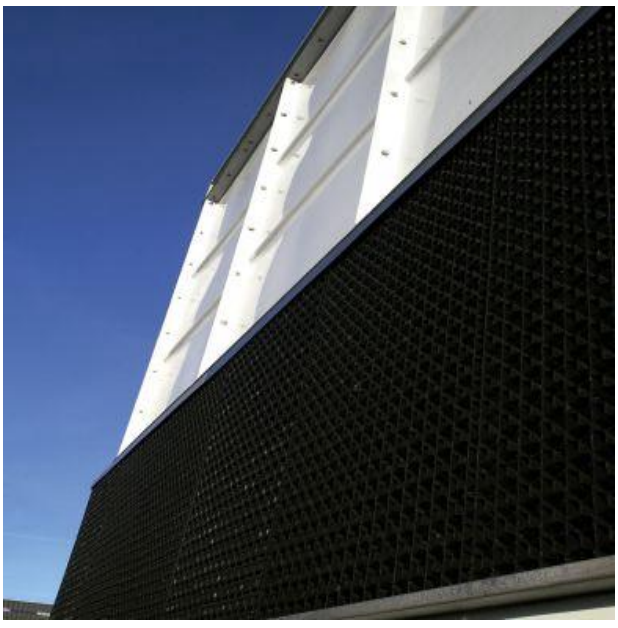
Cooling with cooling towers is based on nature´s own resources - water and air.

Nature´s own method
Cooling towers offer the cheapest, most efficient and most natural method for cooling water. That is because nature itself creates the cooling effect. In a cooling tower, water flows against an airflow down a liner with a large surface area. By this direct contact between water and air, a small amount of water evaporates, thereby cooling the remainder of the water circulated. The cooling water may typically be cooled below air temperature.

Lots of uses
Cooling towers may be used to great advantage in industries using cooling water e.g. in process cooling, cooling of condensers, hydraulic oil, autoclaves, evaporators, extruders, fermenters and engine testing beds.

Excellent operating economy
The cooling tower has very low energy consumption compared to other cooling methods. Today´s increasing water and sewage costs make recycling of cooling water more and more cost-effective. Cooling towers from Vestas aircoil also offer an efficient and low-cost solution for heat re-circulation systems, when removing surplus heat during the summer months.

Longer product life through quality
Vestas aircoil cooling towers are designed to provide a long and maintenance-free operation. The top, side plates and lower tank are constructed from fibreglass reinforced polyester. All steel parts are galvanised. The intake is manufactured from polypropylene. In the cooling tower models OCT06 and OCT09, a gear train is used as transmission. In other models, the motor and fan are directly coupled. The cooling liner and the drip tray are made of polypropylene. This design allows for a drip loss as low as 0.05% of circulated water. In the standard version, the cooling liner works with temperature as high as 75°C. We can supply special liners able to withstand operating temperatures of up to 95°C.



The intake grill made of environmentally friendly polypropylene prevents large particles from being sucked into the cooling towers. Also, it distributes the air correctly.

No need to interrupt operation
On the inside, the cooling tower is divided into cells with separate fans and water connections. This allows for easy adjustment, as each fan can work independently. The amount of water to be cooled may be varied by switching off the water supply to individual cells. This design ensures greater operating reliability. At the same time, service inspections may take place without the entire installation being shut down. Instead, the cells are switched off one by one.

Fast and easy service
Each cell has a manhole to allow for servicing. Removing a grill gives direct and free access to inspection of level control, the stainless filter at the outlet as well as the overflow. Access to allow cleaning of the lower tank is just as easy.

Vestas aircoil®

Ready to use in an instant
The modular construction gives the advantage of a short set-up time, even for large cooling towers. Quite simply, the blocks are placed on top of each other and bolted together. The cooling towers can be packed and delivered in a container.

Low water consumption
Only a small amount of the circulating water needs to be replaced. This is due to evaporation during the cooling process. The replacement is done to prevent water pollution.

Low noise levels
Our cooling towers are designed to produce the lowest possible noise levels considering the high cooling capacity. However, since noise regulations depend on various factors such as area, distance to source of noise and time of day, we are able to lower the cooling tower noise emission to the required level.

Specially adapted solutions
Our customers often require special equipment and specific designs adapted to the individual cooling task.

These are examples of special designs:
- Large door for servicing of cooling and fan sections
- Parts made of acid-proof steel (AISI 316) to withstand contact with liquids
- Single-sided intake for connection to air ducts
- Intake with filter for installation in areas with dust, leaves, etc.
- Specific colours matched to surroundings
- Soundproofing according to requirements
- Float control of header tank
- Electronic level monitoring and/or flow control
- Capacity adjustment with multi-thermostat with change-overcycle
- Cooling towers with built-on steel reservoir, fitted with pumps if required