Metso

Metso PLUS

Highly efficient cooling

OKTOP® cooling tower

Application

OKTOP® cooling tower provides direct-solution cooling for applications such as cooling of spent electrolyte solution and gypsum removal, in hydrometallurgical processes.

The cutting-edge design of Metso's OKTOP® cooling tower provides high availability and streamlines maintenance procedures, reducing operational costs.

Metso manufactures OKTOP® cooling towers using two primary materials: fiber-reinforced plastic (FRP) and high-grade stainless steel. These towers excel in harsh environments, thanks to their acid resistance, structural strength, and tailored anti-scaling curtains. Depending on process needs, Metso offers three size ranges (2, 4 and 6 meters in tower diameter).

The heart of OKTOP® cooling towers lies in their patented horizontal outflow system. This innovative design ensures efficient cooling while minimizing emissions. Compared to conventional vertical-flow demisters, the horizontal-flow demisters significantly reduce environmental impact. Real-world site references confirm their effectiveness.

Increased production
OKTOP® cooling towers have already replaced conventional cooling towers in multiple zinc plants and proven their supremacy. By providing increased feed rates to electrolysis and maintaining lower outlet temperatures, they enhance production efficiency. The cooling tower's advanced design optimizes performance and ensures best possible cooling efficiency, making it an industry benchmark.

Metso also offers a complete gypsum removal plant unit, including cooling towers and all other equipment necessary for efficient gypsum removal.

Benefits:

- Efficient, sustainable cooling
- Minimized emissions
- Easy maintenance
- Increased availability

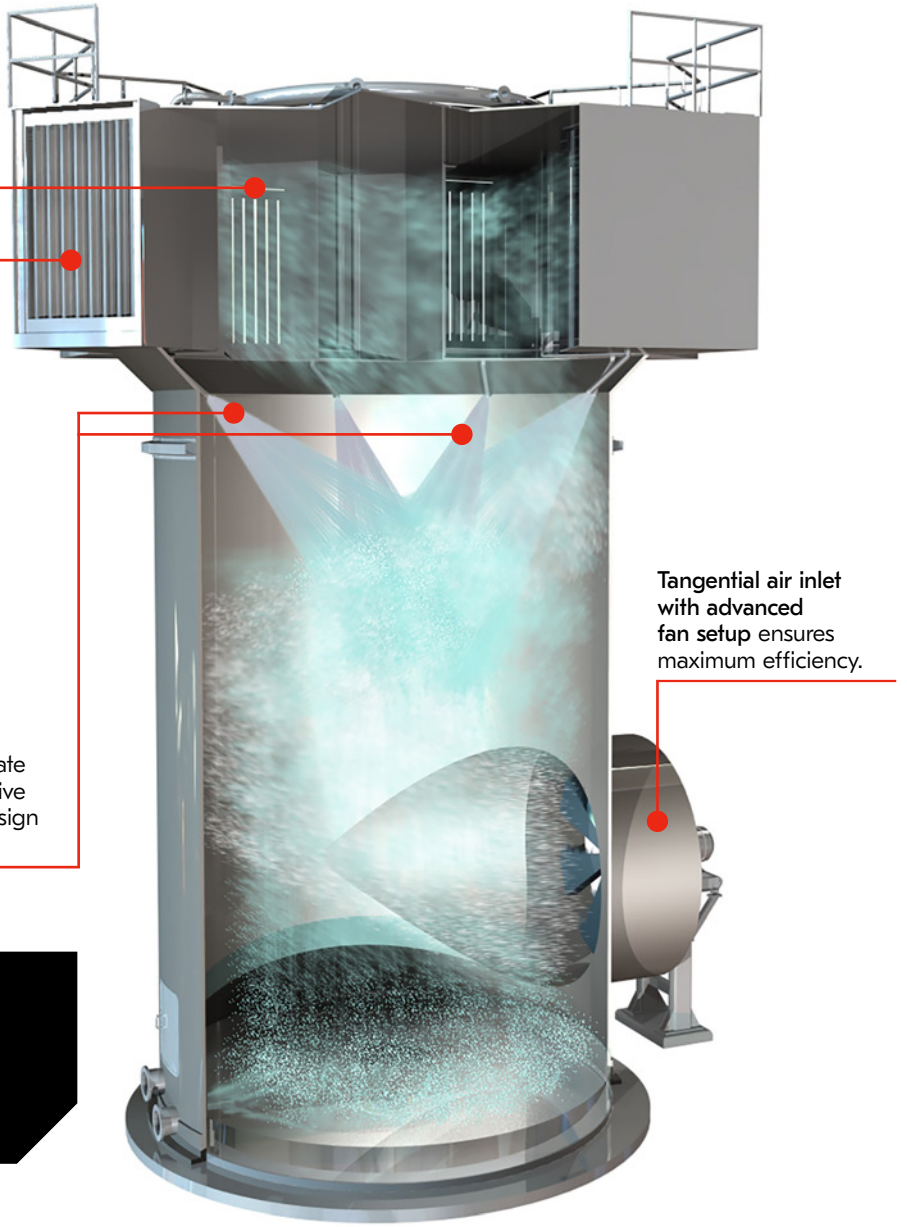
Hero image: OKTOP® cooling tower 6000 (stainless steel). Location: Boliden Odda, Norway

More efficient, sustainable cooling
OKTOP® cooling towers have an advanced, compact design with careful nozzle and fan placement for the best possible cooling efficiency. Their variable-speed drive ensures the tower provides a constant solution outflow temperature in varying conditions. The size of the droplets dispersed from the nozzles is small enough for optimal cooling, but not so small that they increase emissions.

Environmental impact is further minimized by horizontal-flow demisters, which enable considerably lower emissions than conventional vertical-flow demisters. Which has been verified in real-time customer site.

Lower investment and easier maintenance
Compared to conventional towers, OKTOP® cooling towers have larger air throughput per demister area, so you benefit from the same cooling power as a traditional installation but using less equipment and thus smaller overall footprint. This means lower initial investment and lifetime operating costs.

All parts that need regular maintenance are easily accessible from the top platform for improved speed and safety. The demister cassettes can be removed and lifted down swiftly with crane without requirement for high capacity crane and the curtain lifting can be performed without the need for scaffolding.



Additional features:

- **New stainless steel version –** high corrosion resistance and structural strenght
- **Proper material selection –** excellent in heavy scaling process conditions
- **Heavy equipment usage –** maintenance can occur without damaging the tower

Read more at metso.com/portfolio/cooling-tower