

## KS

Open silent centrifugal cooling tower



Water flow range from 74 to 766m<sup>3</sup>/h  
Capacity: 1100 to 3300kW

- *FREEFILM : industrial infill*
- *Mechanical resistance*
- *Hygiene compliance*
- *Easy maintenance*
- *Reliability*

Commercial Documentation

# Open silent centrifugal cooling tower: KS series

## Casing structure

All the galvanized steel cooling tower panels casing have been twice or 4 times folded over the 4 sides, also proposed in **X-STEEL** stainless steel as an option (corrosion resistance higher than 316L). The water tightness between the panels is ensured by a special designed high covering seal and stainless-steel rivets (uniform and high-capacity locking), located on external side of the casing. Panels' assembly is made without any bolting or welding for the parts in contact with water: unique **strength and waterproof JACIR design**.

As a standard, two large doors in the same material as the cooling tower are provided on bottom and upper casings to allow quickly access or removal of the drift eliminators, nozzles, exchange surface and water distribution pipes.

## Basin

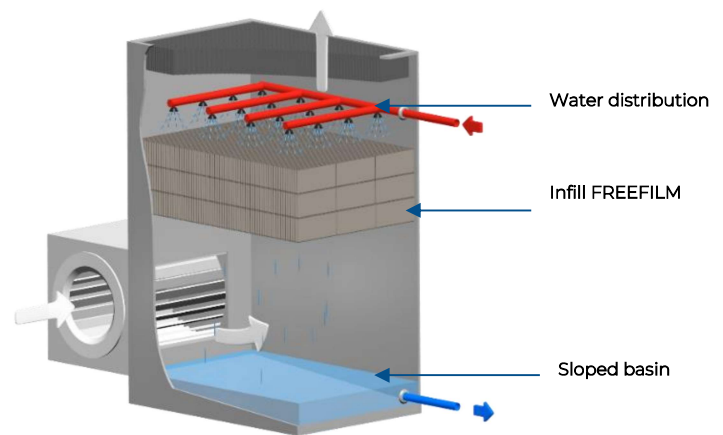
The basin has been thought to consider the needs and inertia of the installation. In order to reduce bacteria growth, panel's assembly has been realised without any bolts or screws for the parts in contact with water. The sloped and flat basin is equipped with a drain and a **POWER FLOW** access, both located under the lower level of the basin, enabling a quick and complete drain of all sludge or other accumulated parts during cleaning maintenance. The basin is also equipped with access doors to ease maintenance.

## Water distribution

The water distribution is made of PP pipes through highly efficient water distributors. These nozzles are made of polypropylene and distribute water under low pressure (8kPa) uniformly over the whole exchange surface. This **low pressure reduces drifts** (0.8m WC) and bacteriological contamination risk. Indeed, low pressure creates heavier droplets, so less drifts out of the cooling tower. Furthermore, water nozzles are widely sized to avoid any clogging, even in the case of high suspended solids contents.

## Exchange surface: FREEFILM

Made of vacuum pressed PVC sheets for a standard use up to 58 °C as a standard; and up to 80 °C as option with PVC or ABS material. Thanks to its large vertical channels of 20mm, the **FREEFILM is highly resistant to fouling** and shows a **very low pressure drop characteristics**.



## Motor fan set

The fans specially designed and manufactured by **JACIR**, have continuously been perfected over the years. Polyester air inlet ducts are profiled to optimise air suction, allowing low pressure and slow rotation speeds. This leads to a very **low power consumption** of the fan motors. Located in the dry air flow and outside the tower basin, motor fan set is **protected from corrosion** by a baked epoxy coating. The elliptical scroll is made of **X-STEEL** stainless steel.

## Silence

- ∞ **Insonorisation IB** sans augmentation de la puissance électrique absorbée,
  - ∞ **IB sound attenuation** without increase power consumption,
  - ∞ **ICV/ICVK or special\* sound attenuation** levels.
- \*Sound attenuation models are not ECC certified.

## Options

Non-freezing plume suppression coil\*: **JACIR** patent (hybrid **KSIM\*** series) 30% to 50% water savings/year

Other options: Automatic Inductive Blow down (Dai), frequency drive device, two speed motors, electro valve driven by level switch, all accessories in **X-STEEL** stainless-steel, on-site erection and/or supervision, etc