JACIR
Cooling for life

SF-SFIM

Closed circuit cooling tower

COMMERCIAL DOCUMENTATION

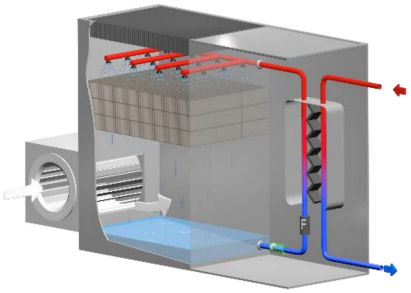
Range: water flow rates from 6 to 190 m3/h
Power from 20 to 2 000 kW

- *Lifetime guarantee*
- *Glycol-free*
- *Freezing safe*

FABRIQUE EN FRANCE
NF 38-424
La FRENCH FAB

COFINAIR GROUP

Closed circuit cooling tower: SF series



Casing

As a standard, the rigid self-supporting panels are made of galvanized steel, 2 mm thick plates, folded twice or 4 times on the 4 sides of the panel (JACIR design) allowing a complete noise insulation of the tower's casing.
All the folds of the plates are outwards, and assembled by stainless steel sealed rivets (powerful and uniform tightening) and the panels are assembled without welding and without any bolt in contact with the water. X-STEEL stainless steel is available as an option (corrosion resistance superior to 316L).

Basin

The basin is sloped for a complete drain, with an access door. It includes an easily adjustable float valve, an overflow, a water heater, and an anti-cavitation strainer made of stainless steel and PEHD. It is also equipped with a POWER FLOW trap door, enabling to evacuate all sludge and other accumulated parts quickly and completely in the bottom of the casing using simple water spray and a centrifugal FRC filter (JACIR patent):

- 100 % of the tower's water volume is continuously filtered every 1.2 minutes, with a 60 µm efficiency,
- Automatic cleaning managed by the opening of the drain circuit (with DAI, inductive blow-down option).

Therefore, the entire evaporative loop remains clean and decreases the risk of legionella proliferation.

Heat exchange surface

The EFFI-PACK infill is made of PP sheets, is shock-proof and gives the highest heat exchange surface with a large free surface, and is resistant to fouling.

Water distribution

Several PVC material distribution pipes feed polypropylene sprayers. Easy to remove, (stainless steel bolts) they are equipped with an internal turbulator for an optimal and uniform distribution of the water.

Accessibility

As a standard, a large access door made of the same material than the tower allows an easy removal and cleaning of the drift eliminators, sprayers, heat exchange surface and water distribution.
The POWER FLOW trapdoor, located under the low level of the slope basin makes the water drain and cleaning easy.

Heat exchanger room

The stainless-steel Plate Heat Exchanger is fully protected from the outdoor conditions thanks to a galvanized, 1,5 mm thick self-supporting casing (X-STEEL as an option) with a large access door to ease the maintenance.
The connection to the heat exchanger is made through flanges located outside the room: there are only 2 connections: inlet and outlet, placed on the tower's length.

Motor fan set

The fans especially designed and manufactured by JACIR, have continuously been perfected over the years. The impeller is a double side air inlet type. Polyester air inlet ducts are profiled to optimise air suction and allow impeller removal.
All maintenance points, including the copper offset grease line, are placed in the dry airflow, out of the basin and at ground level for quick and easy access. The impeller is protected from corrosion by a baked epoxy coating. The elliptical scroll is made of X-STEEL stainless steel.

Silence

In option, acoustic attenuation levels are provided:

- IB silencer,
- ICV, complete noise attenuation
- ICV(K), complete noise attenuation, with double casing
- Special, tailor-made solution on demand.

Options

Plume abatement coils (SFIM hybrid range), automatic inductive blow-down, 2-speed motor, extra support beams, electro-valve regulated by level sensors, explosion-proof motors, electrical cabinet, site erection, EFFI-SILENT sound abatement, etc.