What is Evaporative Humidifiers ?

Evaporative humidifiers are aqueous humidifiers with both cooling and humidification properties. It consists of a water tank and pump sprinkler system, The water in the tank is pumped onto pads by the pump, the passing air over the wetted pads takes the water by evaporating it with the hidden heat. So, the temperature of the air is reduced lightly.

Operation Principle

Adiabatic humidifiers / coolers operate based on water evaporation by air flow passing through the wet surface by natural conditions. The air carries the water vapor and reduces the heat of evaporation in the air. This principle guarantees the oscillation of water in the liquid state during the formation of the gas-air mixture. Microorganisms, minerals and similar parts do not get in to air during the evaporation phase that makes the principle healthy. If only the high air flowed, water droplets could get into the air. This is the biggest difference between Media pad and atomizer humidifier By. adjusting the air flow velocity or using droplet separator eliminates this disadvantage.

Evaporative Panel

Rigid Construction

The evaporative panel consists of cellulosic or glass fiber pads which are supported by structural additives that absorb water without destroying the rigidity of the device

Hygienic Panel

When the panel is inorganic, it is not a source for bacteria and mould. The panel contains silver ions, and these ions act as a biocide to prevent water particles from escaping without evaporation

High Efficiency

The mounting of the panel boards was done by pressure on the metal frames without use of glue. The number of boards per clear front surface area is greater than without bonding. In addition, great design of the angles, the saturation efficiency of the panels is highest, and the loss of load is minimal.

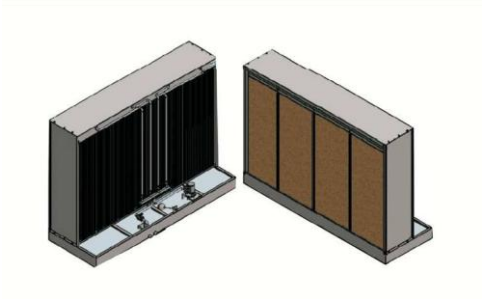
Low Maintenance Cost

As the universal solvent is water, it can dissolve any adhesive as time passes. This is the reason why bonded panel lifespan is shorter than heat assembled panels. The lifespan of panels without adhesives is significantly longer than the bonded panels. The most important thing is they can operate with any kind of water because there is not an adhesive

Features

Easy Maintenance

Panel plates are mounted on stainless steel frames with an integrated sprinkler system. Maintenance and replacement can be done easily by hand. The cassettes can be easily removed from the air handling unit by pulling forward and the space required for inter-service is reduced. It is easy to reach the device for cleaning and maintenance.



Evaporative Humidifier Product Codes

EH-C/G-WP/WOP-075/100/150/200-S/O-2500-2000-800/400-S/SC/IOC-CP/O-C/O
A B C D E F G H I J K

B: Pad type (C: Cellulosic, G: Glass Fiber)
C: Pump (WP: With pump, WOP: Without pump)
D: Pad Thickness
E: Droplet separator (S: With droplet sep., O: Without droplet sep.)
F: Width (mm)
G: Height(mm)
H: Tray length (mm)
I: Control type (S: On/Off control, SC: Step control, **IOC:** Inverter proportional control)
J: Control panel (CP: Control panel, O: Without control panel)
K: Conductivity meter (C: with conductivity meter, O: without conductivity meter)

Device Description

- **Outer Panel:** 304 quality stainless steel.
- **Pad Casset:** It is made of 304 quality stainless steel, and it has a special design that provides water flow on the pad surface.
- **Pad:** According to requirements and desired properties it is selected either cellulosic or glass fiber.
- **Droplet Separator:** It is used when airflow velocity is over 3 m/s.
- **Flator**: By the special design structure it provides water intake automatically according to water level.
- **Pump:** Used to send the water inside the tray to the pads.

Optional Accessories

- **Step Control:** If proportional control is required, it controls the solenoid valves for each pad to provide proportional humidification.
- **Proportional control:** If proportional control is required, pump is controlled with an inverter due to the signal 0-10V
- **On/Off Control:** If On/Off control is required, the unit will be controlled on/off by manually or receiving the signal of a hydrostatic.
- **UV Filter:** It provides disinfection of humidifier water. It is preferred for hygienic applications.
- **Conductivity Sensor:** Provides fresh water from the source by draining the tray completely if the conductivity of water increases in the tray.
- **Water Level Sensor:** In case of an increase of water level in the tray, it prevents water inlet by closing water solenoid valve.