

ADIABATIC EVAPORATIVE COOLING



THE INNOVATIVE EVAPORATIVE COOLING SYSTEM FOR INDUSTRIAL, COMMERCIAL, SPORTS AND AGRICULTURAL BUILDINGS THAT LOWERS COOLING COSTS AND IMPROVES THE AIR QUALITY















Air pollution reduction

Air cooling and purification

Low running, installation and maintenance costs

Large air changes

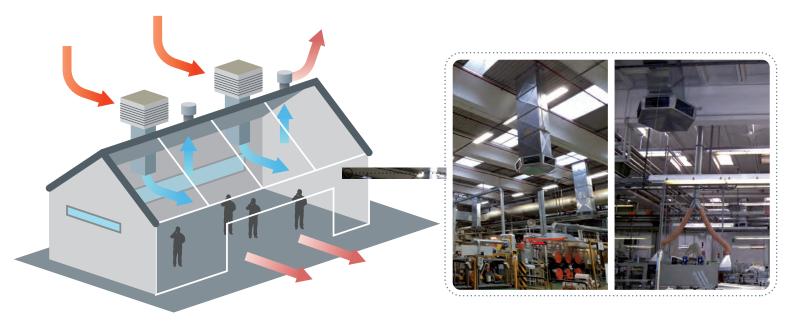
Zone management cooling

No refrigerant gases, no pollution impact

Improvement of environment hygiene

Low energy consumption

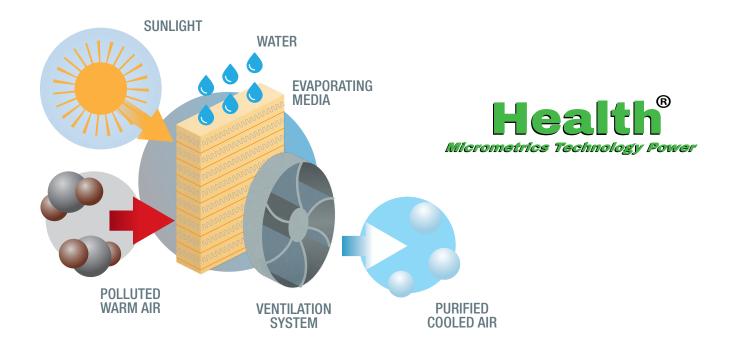
Automatic ventilation and free cooling



EVAPORATIVE COOLING

Differing from a traditional air conditioning system, Cold AIR operates with "open doors" by inputting in the building new air and creating continuous air changes, in this way the building receives new oxygenated air and expells the exhausted air. The new air is cooled by an evaporative cooling system that does not use compressors nor refrigerant gases, it cools it through the water evaporation process that reduces the sensible heat of the air.

This allows to cool large volumes of air with very low energy consumption and a zero environment impact.



HEALTH SERIES INNOVATION

POLLUTING ELEMENTS REDUCTION

After having cooled the external warm air, COLD AIR Health series before inputting it into the building, purifies it thanks to a patented system designed by Impresind. The purification takes place inside the evaporating media through the photocatalysis of titanium dioxide which, exposed to sunlight, produces a high oxidizing effect on organic and inorganic substances.

Therefore, it reduces the harmful presence in the air of nitrogen dioxide, sulfur dioxide, carbon monoxide, benzene, ammonia, formaldehyde, atmospheric particles PM10 and organic molecules (reduction of bacterial load).

Test results performed at the University of Turin by the Department of Chemistry, indicate for example a reduction of NO of 60% and NOx of 37%.

TECHNICAL FEATURES

External casing made of ABS with anti UV treatment

Celdek filter pads, 100mm thickness with anti bacterial treatment

88% saturation efficiency

Filters wetting system with multi wash system

Automatic cleaning cycle and draining

Multi function electronic controller and BMS system ready

Programmable thermostat

Programmable humidistat

SUITABLE FOR













sind 2019-09

COLD AIR EVAPORATIVE COOLER SERIES

| Model | Air circulation m³/h* | Cooling capacity kW | Airflow m ³ /h* | Electric Power W | V/Hz | Dim. LxWxH mm | Weight e/f Kg |
|------------|-----------------------|---------------------|----------------------------|------------------|-----------|----------------|---------------|
| FPA 109 | 14.000 | 24 | 10.000 | 900 | 230/50/60 | 1300x670x1300 | 60/75 |
| FPA 159 | 18.200 | 32 | 13.000 | 1.200 | 230/50/60 | 1300x670x1300 | 63/78 |
| TC 109** | 14.000 | 24 | 10.000 | 2.000 | 400/50/60 | 1150x1150x1050 | 90/110 |
| TA 159 | 18.200 | 32 | 13.000 | 1.200 | 230/50/60 | 1150x1150x1050 | 67/88 |
| TA 209 | 28.000 | 49 | 20.000 | 1.800 | 230/50/60 | 1610x1150x1050 | 120/146 |
| TA 209-2SD | 28.000 | 49 | 20.000 | 1.800 | 230/50/60 | 1610x1150x1335 | 150/180 |
| TC 209** | 28.000 | 49 | 20.000 | 3.200 | 400/50/60 | 1610x1150x1050 | 160/186 |
| TA309 | 37.800 | 66 | 27.000 | 2.500 | 230/50/60 | 1610x1150x1335 | 135/163 |

^{*}Extra UE design parameters

RESULTING AIR TEMPERATURE BASED ON EXTERNAL AIR CONDITION COMBINATIONS

| R.H. Ext | 30% | 40% | 50% | 60% | 70% |
|----------|---------|---------|---------|---------|---------|
| | | | | | |
| °C Ext. | °C Int. |
| 30°C | 19,0°C | 21,0°C | 23,0°C | 24,5°C | 26,0°C |
| 35°C | 22,5°C | 25,0°C | 27,5°C | 29,5°C | 31,0°C |
| 40°C | 26,0°C | 29,0°C | 31,5°C | 33,5°C | 36,5°C |

IMPRESIND IS ALSO HEATING AND VENTILATION SOLUTIONS









^{**}Centrifugal fan units