



Cool Breeze

Evaporative cooler

TECHNICAL LEAFLET

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The new innovative evaporative coolers, with automatic control of all functions, are available in three models: D225, D500, S240.

Sabiana's Cool Breeze cooler uses the natural principle of water evaporation to lower the air temperature, just as a sea breeze provides cool relief on a hot day at the beach.

External warm air is pulled through the water-wet pads, reducing its temperature, and is then immediately blown into the building via the fan and air diffuser.

This evaporation process also has the advantage of filtering out dust (>10 micron) and pollen in the air, not only fresh air but cleaner air.

Evaporative cooling provides a continuous flow of new, fresh air; the warm air in the building is expelled and never recirculated.

Industries, shops, sports facilities and in general premises with large volumes can find in this product the solution for the hot periods of the year, the given drop in temperature combined with air ventilation given by the large air changes supplied result in an excellent comfort level in the building.

It's a completely natural cooling method!



Mod. D225
11.000 m³/h



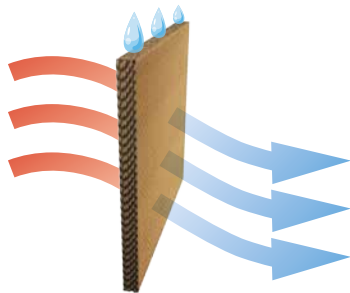
Mod. D500
21.000 m³/h



Mod. S240
10.500 m³/h

Function

The Cool Breeze evaporative cooler lowers the temperature in the building by accumulating multiple principles of air conditioning: temperature reduction, elimination of accumulated heat, constant ventilation.



Temperature reduction

Hot external air is passed through the water-saturated cooling pads, the air in contact with the water triggers the water evaporation process which automatically decreases the air temperature, the resulting fresh air is introduced in the building by the fan in the cooler.

The cooling effect obtained depends on the efficiency of the cooling pads, the number of air changes supplied, the temperature and humidity of the external air in that moment.



Elimination of accumulated heat

During the summer season heat continues to accumulate in the building due to both the sun's radiation and the activity that takes place inside (machinery, work, etc...).

The Cool Breeze cooler constantly introduces new air into the building and expels the accumulated warm air outside, this results in supplying large air changes in the premises allowing to decrease the temperature by replacing exhausted air with new air.

It is able to reduce the thermal load that accumulates in the building during the summer season.



Constant ventilation

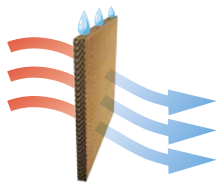
The movement of air over the body creates a feeling of coolness, the typical feeling you get on a hot day by turning on a fan that blows directly at us, the feeling is that the air is cooler even if its temperature has not really changed.

By supplying many air changes, the Cool Breeze evaporative cooler creates a constant air movement in the building which gives an additional feeling of temperature decrease.



Plastic structure

Cool Breeze is designed with UV-resistant ABS plastics and tested in the driest climates to ensure optimum durability in both function and aesthetics.



Cooling pads

The cooling pads used are made of cellulose with a thickness of 100 mm, the honeycomb shape optimises the maximum contact of the water with the cooling pad allowing to reach saturation efficiencies above 90%.

Cool Breeze cooling pads do not use formaldehyde in the production process so they do not produce an unpleasant smell during the first few weeks of use.



Motor

The fan is run by a high efficiency 1 kW motor (two motors for the D500 model), does not use belts and pulleys and no maintenance is required.

It can also run in reverse for the air extraction function.



Tangential fan

High efficiency fan with low noise thanks to the unique dimple design (like a golf ball); this feature increases the air flow produced and reduces the sound impact of the fan.



Electronic board

All the functions and safety measures of the product are managed by the electronic board inside the machine.

Automatic water management, washing cycle and water discharge.



Water inlet valve

Solenoid valve for loading water into the cooler sump, equipped with removable and cleanable filter.



Magnetic level sensor

A magnetic level sensor is used to manage the water level in the sump, this allows to not have to carry out maintenance on this component and to have a high reliability over time.



Recirculation pump

It manages the distribution of water on the cooling pads by recirculating it from the cooler sump. It is a high durability professional pump.



Counterweight drain valve

Special gravity operation without the use of electronics, this guarantees a long life and that in no situation the water in the sump remains stagnant.



Remote control included

The wall-mounted control panel manages the cooler's functions in automatic mode (ventilation, cooling and air extraction), fan speed, wash cycles and indoor temperature.

The functions can also be used in manual mode.

BMS

On request it is possible to control the evaporative coolers with a networked system via software from PC, tablet and smartphone.

Models		UDM	D255	D500	S240
Motor	Tension	V	220-240		
	Consumption	W	1000	2000	1000
	Tension	A	6	12	6
	Speed	RPM	850-1370		
Portata aria a 20 Pa		m ³ /h	11000	21000	10500
Ventilation (*)		m ³ /h	19500	36000	18500
Cooled volume		m ³	612	1200	576
Product dimensions		mm	1.130 x 1.130 x 970	1.630 x 1.200 x 995	1.130 x 1.130 x 1.320
Pad dimensions (no. x l x h)		mm	4 x 830 x 770	2 x 928 x 960 4 x 645 x 960	3 x 950 x 830
Pad surface		m ²	2,6	4,3	2,4
Pad air speed		m/s	1,2	1,4	1,2
Water consumption (**)		l/h	34	58	32
Sound power (***)		dB(A)	65	83	66
Operational weight		kg	80	148	103
No. of fans		No.	1	2	1
Air outlet			lower	lower	lateral

(*) calculated according to non-EU standards

(**) at an outside temperature of 32 °C and a relative humidity of 40 %

(***) measured at 1 m distance





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