



windmason
BREATHE THE FINEST

DESERT MASTER EVAPORATIVE AIR COOLER

For Commercial, Industrial, Residential & Governmental Projects



طول التكييف والطاقة
HVAC & Power Solutions

شركة ويندماسون العربية
Windmason Arabia Co.



About

Windmason's Desert master is innovative evaporative air cooler unit with distinguishing features.

This unit has been developed after years of research in evaporative cooling systems.

There is solutions of many problems normally exist in the regular evaporative coolers.

long life span, stable cooling, strong body structure, well designed coated water tank, best arrangement of cooling pads layer to reduce salt formation on it, less chance of damaging during handling and migration.

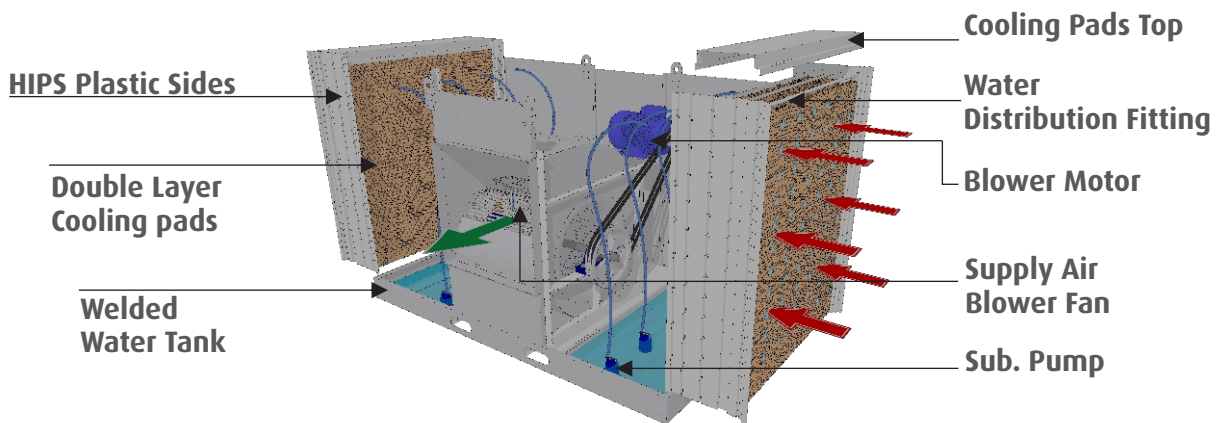
Rigid and coated base of the cooling pads, insulated body, plastic layer protection for wet areas. Bearing corrosion protection.

How does it work ?

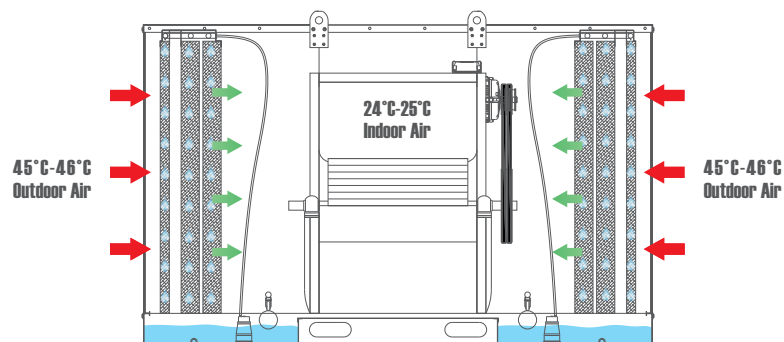
The outdoor hot dry air enters the first layer of the wet cooling pads, where the major salt formation happens.

The air then enters to the main cooling pads layer where the air is pre humidified and cleaned.

This clean and humid air do not damage the main layer of the pads. The leaving air achieve the wet bulb temperature 80-85%.The cool wet air then forced to the room for cooling duty.



WORKING DIAGRAM



Supply air temperature

The supply air from the unit is calculated as follows,

$$DBT - ((DBT - WBT) \times 0.83)$$

For Riyadh weather conditions, DBT-45 C, WBT-20 C

$$45 - ((45 - 20) \times 0.83) = 24.25 \text{ C}$$

The supply air shall be 24.25 C

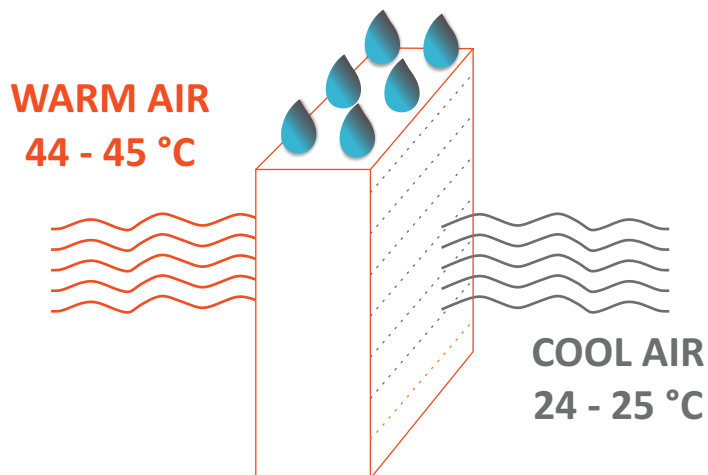
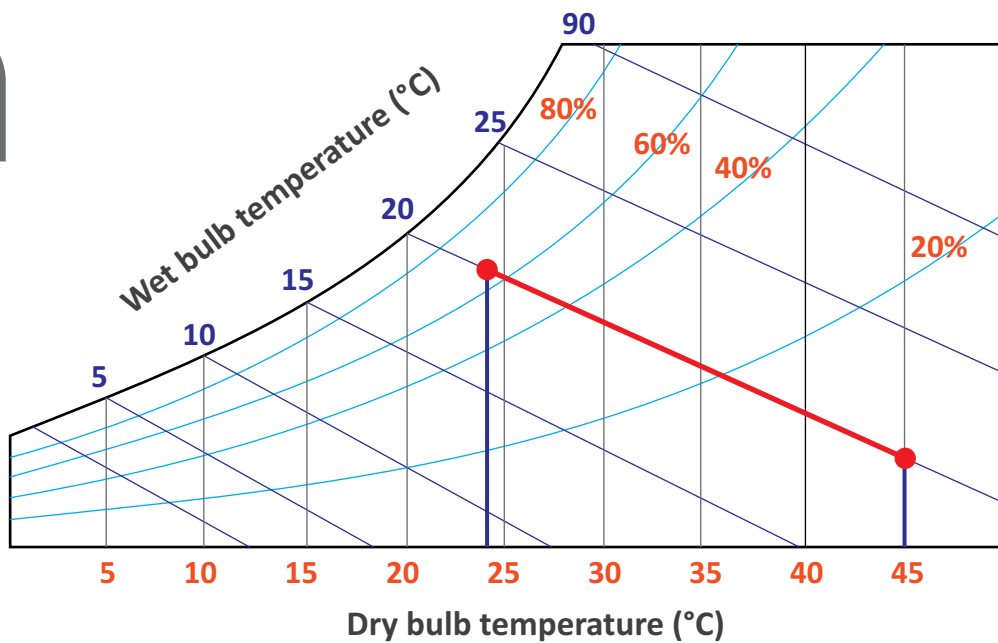
DBT: Dry bulb temperature

WBT: Wet bulb temperature

Evaporative efficiency: 0.83 (83%)

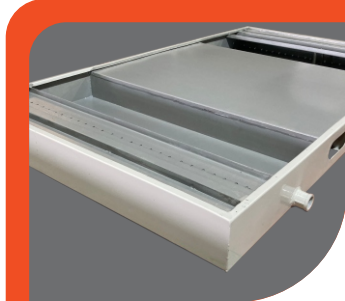
AIR PSYCHOSOMATIC CHART

A



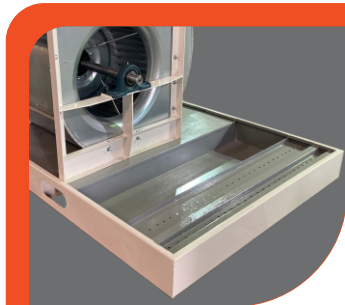
B

INNOVATIVE FEATURES



WELDED BOTTOM PANELS

Heavy base frame with welded panels, which provide high tensile strength to the unit. no chance of water leakage form the bottom of the unit.



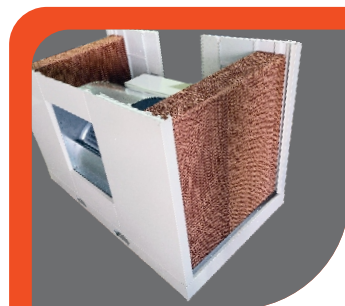
WELDED COATED WATER TANK

Water tank is made of welded galvanized steel with epoxy coating inner side and powder coating outer side. Provide long life and less chance of damages during maintenance. Welded heavy gauge cleanout pipe connection.



WET AREAS PLASTIC SIDES

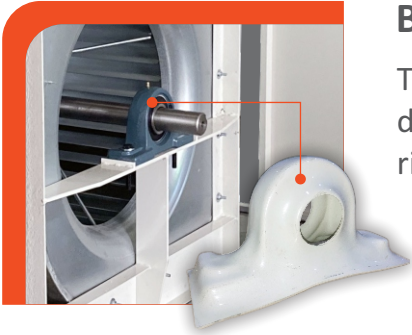
Water tank is made of welded galvanized steel with epoxy coating inner side and powder coating outer side. Provide long life and less chance of damages during maintenance. Welded heavy gauge cleanout pipe connection.



DOUBLE LAYER OF COOLING PADS

5cm of outer layer provide a bearer to the salt formation. Mostly this layer clog due to scaling and dust. The inner main layer is protected by this layer. This layer can be easily replaced and with low cost, reducing maintenance cost and provide sustainable cooling service.

INNOVATIVE FEATURES



BLOWER BEARING PROTECTION

The plastic cover provide protection against direct water mist entering the bearing inner ring. Which gives longer life to the bearings.



BLOWER FRAME

The blower side frame is heavy gauge and coated, which gives long life and stable operation, reduce vibrations.



WATER PUMP AND DISTRIBUTION

The water pumps are best selected submersible pumps with engineered designed water distribution system on the cooling pads provide best evaporative efficiency.

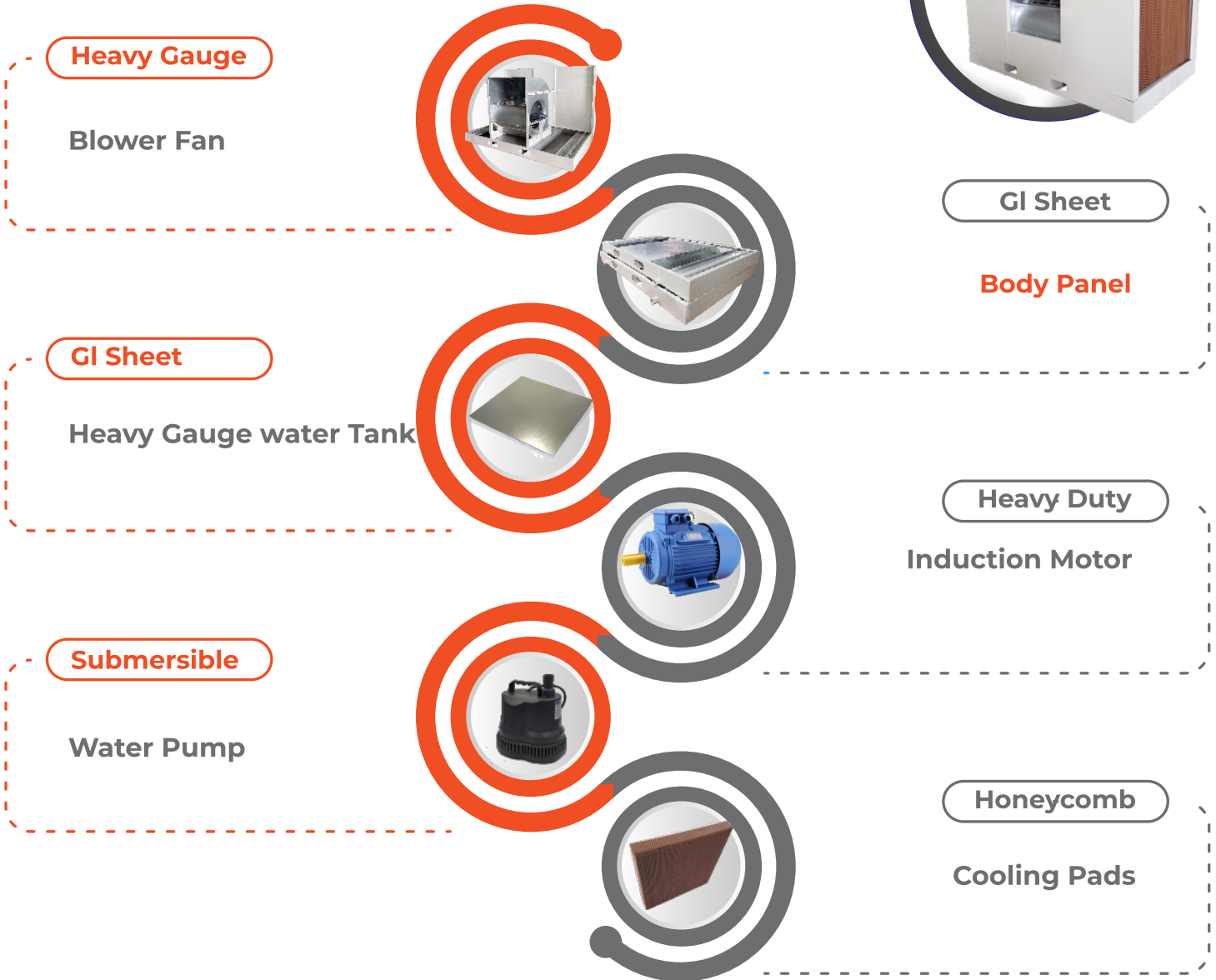


INSULATED BODY

To avoid solar heat gain inside the unit, cabin the body is insulated thermally which provide more cold air in hard ambient conditions.



Major Parts



Our Cooling Solutions

Industrial Cooling

Introducing our Desert Master evaporative coolers – designed for high-efficiency comfort, flexibility in design, easy installation, and reliability. Whether it's industrial spaces or large areas, our cooling solutions ensure a comfortable and productive environment.

Commercial Cooling

Tailored for hotels, schools, shops, restaurants, and more, our air conditioning systems provide comfort and economy for medium-sized buildings. Experience the luxury of 100% fresh air, creating a pleasant atmosphere for your business or institution. Stay cool and comfortable with our reliable commercial cooling solutions.

TECHNICAL DATA

معلومات الهندسية

MODEL	DM-3KCFM	DM-4KCFM	DM-6KCFM	DM-8KCFM	DM-9KCFM	DM-12KCFM	DM-14KCFM	DM-16KCFM	DM-18KCFM	DM-25KCFM	DM-33KCFM
FEATUERE											
Motor Power	3/4 HP	1 HP	1 HP	1.5 HP	2 HP	3 HP	4 HP	5.5 HP	7.5 HP	10 HP	15 HP
Air Flow (cfm)	3000	4000	6000	8000	9000	12000	14000	16500	18500	25000	33000
Blower Fan Size	15 X 15	15 X 15	18 X 18	18 X 18	18 X 18	22 X 22	22 X 22	22 X 22	25 X 25	28 X 28	28 X 28
Electric Power Supply	220V/1Ph	220V/1Ph	220V/1Ph	220V/1Ph	220V/380V/ 3Ph	220V/380V/ 3Ph	220V/380V/ 3Ph	220V/380V/ 3Ph	220V/380V/ 3Ph	220V/380V/ 3Ph	220V/380V/ 3Ph
Max. Current (A)	4.8	6.0	6.0	8.8	6.4 - 3.7	9 - 5	12 - 6.6	15.3 - 8.5	20 - 11.5	27 - 15	39 - 22
Air intel sides	1	1	2	2	2	2	2	2	2	2	2
Cooling Area m2 (approx.)	60	80	120	160	180	240	280	330	370	500	660
Water Consumption (Ltr/Hour)	33	45	70	90	100	135	160	190	210	285	370
Net Weight	92	130	180	215	215	402	465	470	535	572	590

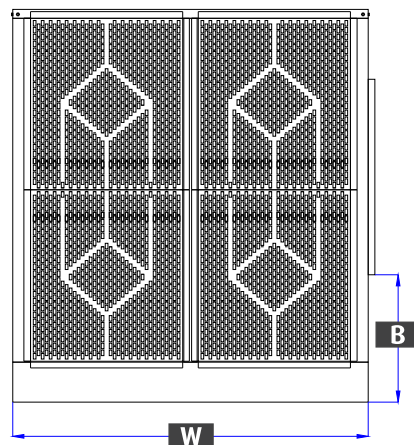
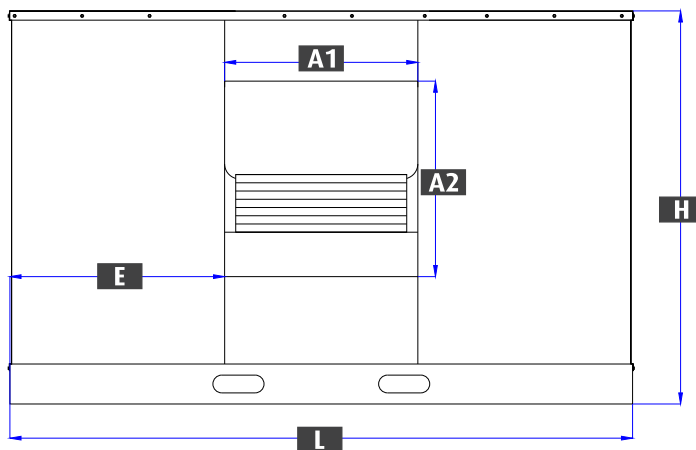
Air flow us based on open inlet open outlet, without any external pressure.
Water Consumption varying with ambient conditions.



PHYSICAL DIMENSIONS

الأبعاد

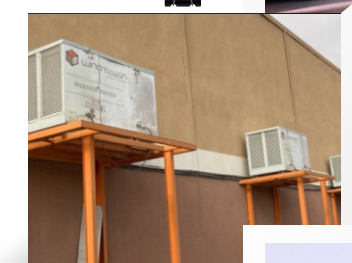
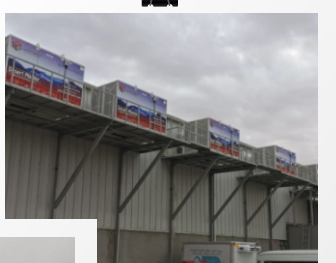
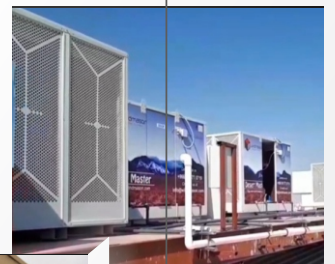
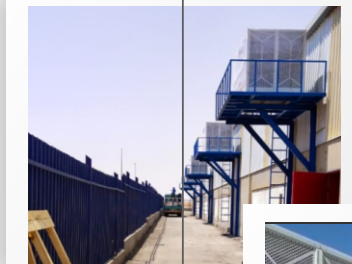
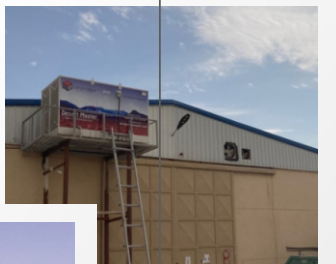
UNIT CAPACITY	L (mm)	W (mm)	H (mm)	A1 (mm)	A2 (mm)	E (mm)	B (mm)
3/4 HP	1300	950	1050	470	460	245	305
1 HP - Single inlet	1300	950	1050	470	460	245	305
1 HP - Double inlet	1750	920	1100	560	470	620	590
1.5 HP	1750	920	1100	560	470	620	590
2.0 HP	1750	920	1100	560	470	620	590
3.0 HP	2200	1220	1300	690	690	650	585
4.0 HP	2200	1220	1300	690	690	650	585
5.0 HP	2200	1220	1300	690	690	650	585
7.5 HP	2550	1500	1635	800	800	880	610
10 HP	2800	1600	1835	870	870	970	650
15 HP	2800	1600	1835	870	870	970	650



Note:

Due to the continuous development, the dimension of the unit may change, please contact WINDMASON for updates before considering the physical dimensions in your project design.

Quality Services



Our key Clients

			
Al Tazaj Restaurant	Al Romansiah	Best Harvest Trading Co	LSC
			
Gulf Catering Co	Al Romansiah	Imile Logistic	Multi Brands Trading
			
RAQAM Company	ADEX Company	IHCC	Al-Watania Plastic
			
Al-Babain Food	Sahara Mall	Al Jabar Laundry	Al Yasra Fashion
			
Al rashed Food Group	Dar Al Uloom University	White Crystal For Filling	Packing Product Co.
			
Awarid Cosmetics Co.	National Water Company	First Class Aviation	Saudi Eraad Defense
			
Jarir Book Store	Al Karama Food Co	Creation Source Trading	Continental Hotel Riyadh

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A TRUSTED BUSINESS PARTNER!



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