

Air Heating

Air Cooling

Dehumidification

Solar Heating



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ABOUT BFREEZE

Who are we?

Bfreeze is a Pakistani team of engineers and technicians that does research and and manufacturing to produce affordable Air-Conditioning and Heating solutions for the Pakistani market. Bfreeze started with a simple prototype project and went on to win the prestigious HULT Prize investment. It quickly grew into a desi company that offered industrial cooling and residential heating all over Pakistan. We are currently working on producing exportable products to contribtute to Pakistani economy and job market, and creating a meaningful engineering environment in the country.

Our Philosophy

We started this company as a means to conduct legitimately impactful research that materializes in results and accelerates the global population towards development. We aim to unlock the latent value within people and direct individual talent towards outcomes. Bfreeze is shooting for a world where people are able to engineer outcomes and produce meaningful impact out of their lives. Simply put, our motto is,

Live an impactful Life





ABOUT BFREEZE

Made in Pakistan

Bfreeze is a Pakistani grown and raised company through and through. All of the products on Bfreeze's catalog are produced, maintained and serviced right here in Pakistan.

We believe that Pakistan can compete with international manufacturers on quality and price to provide value to the rapidly growing Pakistani market.

Our R&D department is focused on researching Pakistani market needs and produce products fitting for the desi market. Bfreeze's championship of made in Pakistan products is rooted in our philosophy of making Pakistan the research capital of the world in regards to energy systems.

Bfreeze represented Pakistan for the prestigious HULT Prize 2020 internationally and won the title for Pakistan with a \$100K investment to provide eco-sustainable HVAC solutions to the world, starting from South Asia.





ABOUT BFREEZE

Climate action

Climate change is a major problem that is agitating and increasing over time at an accelerating rate. Pakistan is one of the first few countries to be directly impacted from it these years. With more frequent heat waves in the upcoming years combined with rising population, it is necessary to develop eco-friendly solutions to meet the needs of the middle class majority of South Asia. Bfreeze is committed to cut down the net Carbon emissions of Pakistan in the short and in the long term using technological solutions and provide an environmental buffer for the massive population boom that is coming ahead.

Carbon Savings

Indirect Evaporative Cooler
Direct Industrial Evaporator
Solar Water Heater
Industrial Dehumidifier

2.2 Tons-CO2/yr3.5 Tons-CO2/yr19 Tons-CO2/yr1.8 Tons-CO2/yr





Industrial Evaporative Coolers are able to provide high levels of cooling and ventilation along with humidification. The equipment is designed to last 30-40 years and requires minimal preventative maintenance. Bfreeze's industrial coolers offer lower prices for competitive quality, optimize water consumption, have built-in motor protection protocols and come with in-house service and support within Pakistan. This is the product you are looking for if operating in relatively open spaces with a lot of ventilation and a high air flow across halls.

Quick Specifications

Power
Tonnage
Body
Air Flow
Water Tank
Cooling Pad
Fan Type

1.5 kW
13 Ton
SS
10,000 CFM
165 L
Caldek 5090
High Pressure Aluminum





General Specifications

Power

Voltage

Sensible Tonnage

Cooling Area

No. people

Air Flow

Water Flow

Water Pressure

Air Pressure

Body Dimensions (LxWxH)

Cooling Pad

Fan Type

Water Tank Capacity

Water Consumption

Body Material

Warranty

1.5 - 2 kW

220/380 V

10 - 13 Tonn

1100 - 1600 sq ft

25 - 100

10,000 CFM

70 LPM

50 - 55 ft

250 - 280 Pa

45 x 45 x 41.5 (Cutomization)

Celdek 5090 (100 mm thickness)

High Pressure Aluminum blades

165 L

8 - 15 L/hr

Galvanized / Stainless Steel

2 yrs





Comparison with Air Conditioner



90%
Lower Energy
Consumption



90%
Lower Carbon
Emissions



5x
More COP
(Efficiency)

There's more



2 yrs

Warranty



100%

Local tech support





Performance Resuts

Outdoor RH	10%	15%	20%	25%	30%	35%	40%	45%	50%	55%	60%
Ambient Temperature °C				T	emperatu	ıre After (Cooling				
30	16	17	19	20	20	21	22	23	24	24	25
35	20	21	22	23	24	25	26	27	28	29	29
40	23	24	25	27	28	29	30	31	32	33	34
45	26	28	29	30	32	33	35	36	37	37	38
50	28	31	33	34	36	37	39	40	41	42	43





Models:

BFREEZE DEC10K

Power

Voltage

Sensible Tonnage

Cooling Area

No. of people

Air Flow

Water flow

Pressure

Pressure

Body Dimension (L×W×H)

Cooling Pad

Fan Type

Water Tank Capacity

Water Consumption

Body Material

Warranty

1.5 kW

220 / 380 V

13 Tonns

1100 - 1600 sq. ft

25 - 100

10,000 CFM

70 LPM

50 - 55 ft

250 - 280 Pa

 $45 \times 45 \times 41.5$ in (Customizable)

Celdek 5090 (100mm thick)

High Pressure Aluminum Blades

165 L

8 - 15 L/hr

Galvanized Color Steel / Stainless Steel

2 yrs





Models:

BFREEZE DEC7K

Power

Voltage

Sensible Tonnage

Cooling Area

No. people

Air Flow

Water Flow

Water Pressure

Air Pressure

Body Dimensions (LxWxH)

Cooling Pad

Fan Type

Water Tank Capacity

Water Consumption

Body Material

Warranty

1 kW

220 / 380 V

10 Tonn

800-1100 sq. ft

25 - 75

7,000 CFM

45 LPM

30-40 ft

180-230 Pa

 $40 \times 40 \times 35.5$ (Cutomization)

Celdek 5090 (100 mm thickness)

High Pressure Aluminum blades

150 L

8 - 15 L/hr

Galvanized / Stainless Steel

2 yrs





INDIRECT COOLERS

Indirect Coolers give you cool air with a high flowrate but don't add humidity into your rooms or halls at all. Bfreeze's indirect coolers are locally manufactured and quality tested for optimal performance and equipment life. The system is equipped with automated speed control on both the inner and outer unit, optimizing energy consumption and cutting operational cost. The system also comes with a smart control system that offers complete temperature control, air flow control and shows status and alarms about water consumption and tank level. This is the best-fit if you're looking for moderate and affordable temperature control in bakeries, shops, kitches and closed industrial sites.

Quick Specifications (4 Ton unit)

Power
Tonnage
4 Ton
SS

Body Air Flow SS 5,500 CFM

Water Tank
Cooling Pad

Caldek 5090

Fan Type Evaporator Steel Blades





INDIRECT COOLERS

Models:

BFREEZE IDEC2K

Power

Voltage

Sensible Tonnage

Cooling Area

No. of people

Air Flow (CFM)

COP

Inner Unit Dimension(L×W×H)

Outer Unit Dimension(L×W×H)

Water Consumption

Body Material

Warranty

Controller

250 W

12 / 220 V

1.75 - 2 Tonns

150 - 200 sq.ft

5 - 7

2000 CFM

20

 $28 \times 18 \times 45$ in

 $30 \times 30 \times 29$ in

5 to 8 L/hr.

Galvanized Color Steel / Stainless Steel

2 yrs

- Dry run protection for pump

- Automatic Water filling.





INDIRECT COOLERS

Models:

BFREEZE IDEC4K

Power (kW)

Voltage

Sensible Tonnage

Cooling Area

Air Flow

COP

Inner Unit Dimension(L×W×H)

Outer Unit Dimension(L×W×H)

Water Consumption

Body Material

Warranty

Controller

1 kW

220 / 380 V

4 - 4.5 Tonns

500 - 600 sq.ft

4000 CFM

12.8

 $28 \times 18 \times 60$ in

 $36 \times 36 \times 32$ in

10 to 13 L/hr.

Galvanized Color Steel / Stainless Steel

2 yrs

- Dry run protection of pump

- Automatic Water filling.





SOLAR WATER HEATERS

Solar Water Heaters operate by trapping thermal energy into a vacuum-sealed black body. The heater water is stored in a steel tank with 60 mm thick 3 layer insulation. The hot water maintains 85% of its stored heat for 72 hours. The system comes with a smart digital controller that maintains water temperature at set-alarm times, displays tank level along with water temperature and rate of heat gain and provides back-up electrical water heating in case all of the heated water is consumed by dusk. This ensures that you have hot water supply at desired temperature 24/7 all around the year.

Quick Specifications

Volumetric Capacities
Heating Power (Solar)
Number of Tubes
Tank Body
ID of Tubes
OD of Tubes
Insulation Type

150 / 200 / 300 L 1.5 / 2.0 / 3.0 kW 15 / 20 / 30 Tubes Galvanized Steel / Stainless Steel 47 mm 58 mm 3 layer vacuum-foam





SOLAR WATER HEATERS

Cost Savings

Capacity (L)	No. of Residents	Monthly Savings
150 L	4	Rs. 6,500
200 L	5	Rs. 8,500
300 L	7	Rs. 12,800

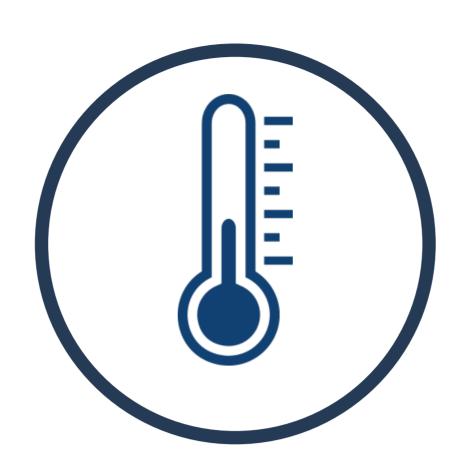




SOLAR WATER HEATERS



24/7 Hot Water Supply



Smart Temperature Control



Backup Electrical Heater



2 Year Product Warranty



Free after-sale Service for 1 yr



Local maintenance and installation

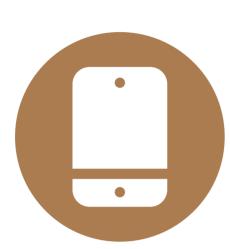




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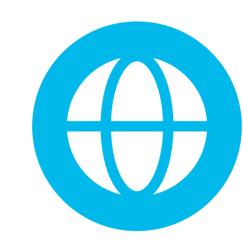
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