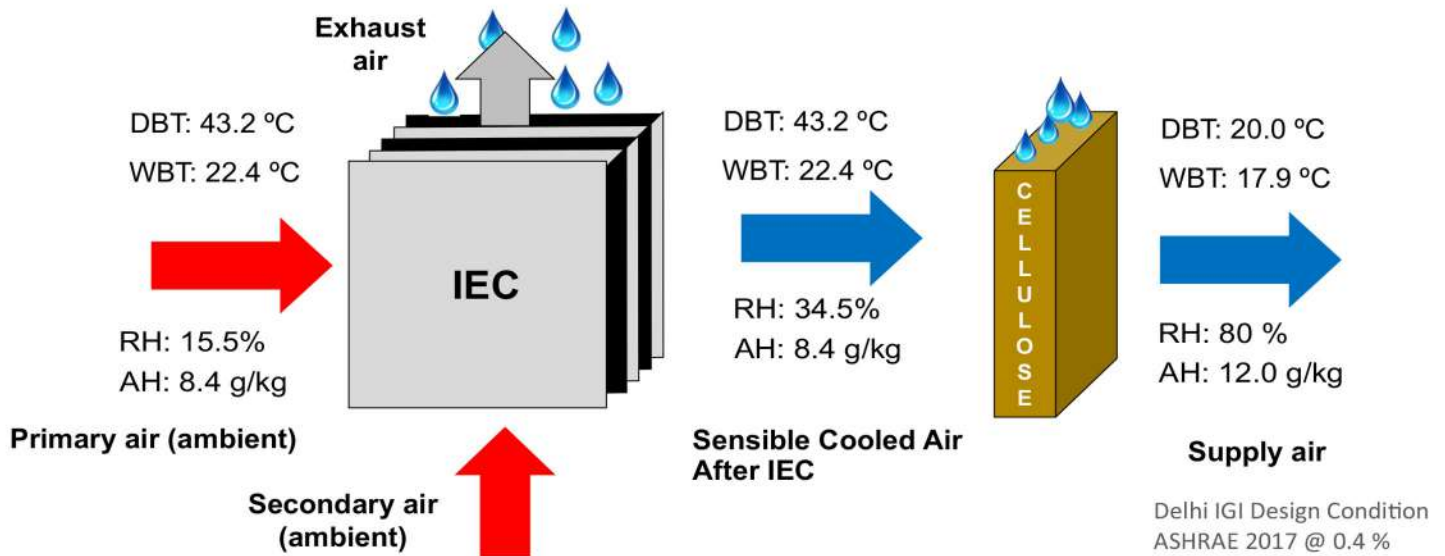


TWO STAGE RBK AIRCOOLING



TWO SYAGE RBK COOLING

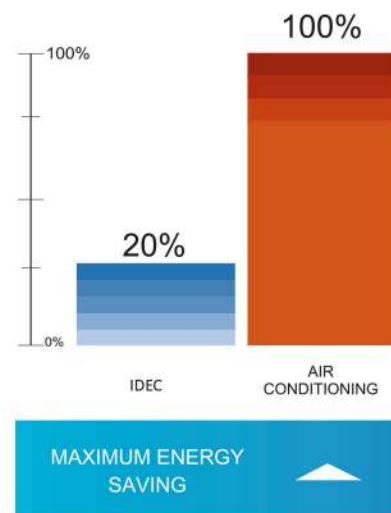
How it Works:



1. Fresh out-side air is drawn in by centrifugal fan.
Air is cleaned by high efficiency filters.
2. Filtered air enters Sensible Heat Exchanger.
Air is cooled without adding humidity
3. Precooled air is further cooled by wet Cellulose pads.
Fresh, Clean, Cool air delivered to needed Space

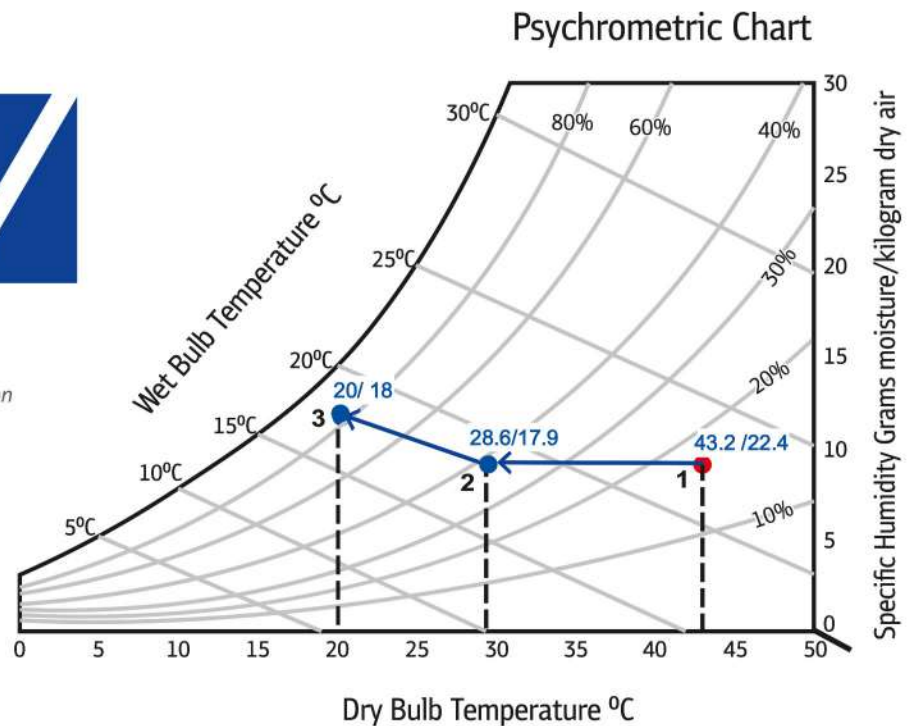
A SUSTAINABLE & ENERGY SAVING COOLING SYSTEM

The Two Stage evaporative cooling system is a natural way of cooling. In addition its economic, healthy and ecological. This system allows constant renewal of air, improving indoor air quality as it introduces clean, filtered, cool air inside the space, evacuating bad odours, smoke & gases, helping to maintain comfortable working and living space.



PSYCHROMETRIC REPRESENTATION

Delhi IGI Design Condition
ASHRAE 2017 @ 0.4 %



Benefits of RBK two Stage Cooling System



Upto 5°C better Cooling than direct **RBK** cooling



Cooling Capacity and efficiency increases as temperature increases



No moisture added to air in first (IEC) stage



Consumes upto 80% less electricity than air conditioning



Delivers 100 % fresh ,filtered ,healthy cool air



Improves indoor air quality by removing dust ,fumes and odours



No chemical refrigerants or compressor used



Improves Productivity in industries through 100% fresh ,clean & cool air



Low Capex and low opex



Combined Cycle cooling efficiency nearly 120%

RETURN ON INVESTMENT

- Upto 80% less running cost than mechanical air conditioning
- Quick investment pay back period
- Low cost of ownership

RUNNING COST COMPARISON WITH AIR CONDITIONING

TYPE	RBK-IDEC -170	Air Conditioning
Capacity	10000 CFM	20 TON
Area Covered	2000 Sqft	2000 Sqft
Motor / Compressor Wattage	5.5 Kw	22 Kw
Total kw (incl. pump etc)	5.6 Kw	27.5 Kw
Electricity Unit Consumption * per Year (12 hrs, 240 days)	16,128 Kw	79,200 Kw
Total Electricity Cost (in Rs.) (Assuming Rate @ Rs 8/Unit)	Rs. 1,29,024/-	Rs. 6,33,600/-
Saving on Electricity Cost per year (in Rs.)	Rs. 5,04,576 /-	Nil
Running cost saving (%)	80 %	Nil
Payback Period	7 Months (One Season)	

* 8 months, (March-October)



APPLICATIONS



Showrooms/
Outlets/Shops



Manufacturing
Plant / Industry



Packaging &
Printing Industry



Kitchen & dining
areas in factories/
restaurants



Server Rooms /
Data Centres



Auditoriums/
Movie theatres

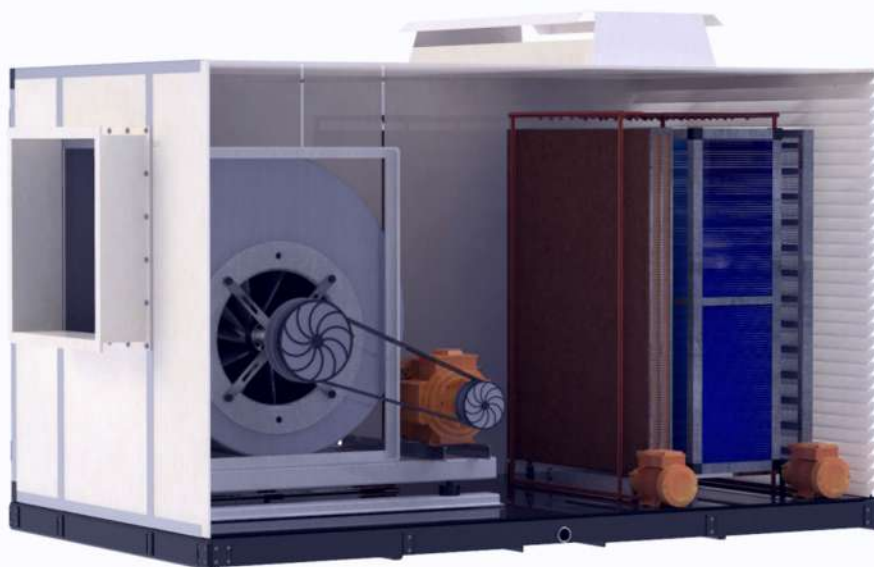


UPS Rooms



Common areas in
hotels/ hospitals

FEATURE & SPECIFICATIONS



Range Available Upto 100000 CFM



**Robust Single Speed Controller With
Wired Remote**

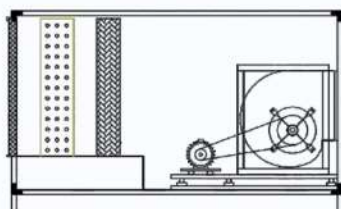
FEATURES:

- ★ Overload Protection
- ★ Short Circuit Protection
- ★ Single Phasing Protection

Fan Features:

- ★ The fans are of international standard and are AMCA certified.
- ★ Centrifugal blower forward / backward curved as per static pressure requirements.
- ★ The fans are static and dynamically balanced.

(single blower)

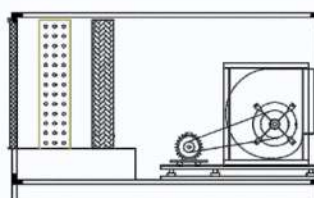


SIDE VIEW

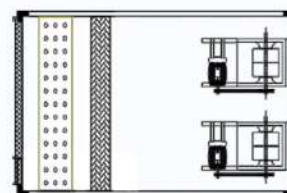
Electric Motors:

- ★ TEFC Squirrel Cage Induction Motor , IP 55 Protected VFD Compatible induction motor of Standard make siemens/CG/Havells /ABB etc.
- ★ Energy efficient Electric Motors

(Double blower)



SIDE VIEW



TOP VIEW

COOLING PADS :

High quality Honey-Comb Cooling Pads made of cellulose paper and with High **RBK AIRCOOLING** efficiency are used. The thickness of pads used is 100 / 200 mm and flute height is 5 mm / 7mm , as per requirement .

Filters:

The standard filters are of box type with extruded aluminium frame and synthetic media. The filter efficiency is 90% down to 10 microns. Depending on application fine filters of various efficiencies can be provided as per custom requirement.

Technical specifications

DESCRIPTION	DETAILS			
Model No.	RBK-IDEC-85	RBK-IDEC-170	RBK-IDEC-250	RBK-IDEC-340
Discharge Type	Side	Side	Side	Side
Airflow (CMH/CFM)	8500 / 5000	17000 / 10000	25000 / 15000	34000 / 20000
Construction	Double skin AHU box.			
	Extruded Aluminium profile structure with Nylon connectors.			
Cabinet	Puff insulated double skin panels of 0.6mm powder coated Galvanised Plain Sheet			
	Base Frame of GI 16 SWG			
Type of Blower	Forward / Backward Curved DIDW Centrifugal Blower			
Blower Make	Nicotra / Kruger / Equivalent			
Fan Speed	3-Phase, Single Speed			
Static Pressure (mmwg)	30	40	50	50
Blower Motor Spec.	IE2 Efficiency, 4 Pole, IP55 Protection			
Blower Motor Power (kW)	2.2	5.5	7.5	11
Power Resource (V/Hz)	415/50			
Motor Make	ABB / Siemens / CG			
Drive Type	V-Belt Drive			
Noise (dBA)	≤ 70			
Adiabatic Heat Exchanger	Cellulose Pad , Make: Munters / EcoCool/ HuTeK			
Sensible Heat Exchanger	Polymeric Plate / Multi Row Copper tube , with Al Fins			
Pre Filter	Box type Pre -Filter (EU -4) Efficiency 90% down to 10 -micron			
Media of Filter Used	HDPE Sandwiched			
Dimension (L x W x H)	2000 x 1150 x 1400 (±150)	2300 x 1700 x 1590 (±150)	2300 x 1700 x 1890 (±150)	2900 x 2620 x 1890 (±150)
Pump Make	Little / Indoma			
Water Tank Material	Stainless Steel – 304 Grade			
Controller Type	Manual Switch Gear Controller			
Remote	Corded Remote			
Overload Protection	Yes	Yes	Yes	Yes
Short Circuit Protection	Yes	Yes	Yes	Yes
Single Phase Preventer	Yes	Yes	Yes	Yes



SITE INSTALLATIONS

Ideal for:



Industry



office



Warehouse



Hospital



School



Hotel



Temple



Home

R.B.K. Air Cooling

Manufacturer & Specialist In

- * Air Cooling * Plant Docketing * Insulation
- * Wholesale A/C Type Grill * Moving Grill * AC Piping
- * Industrial Air Washer Cooling * Blower
- * Kitchen Hood * Wholesale Imported Cellulose Ped

Office & Works:

Plot 103, Shyam Sarovar,
Kalwar Road, Hothaj, Jaipur-302012
E-mail: rbkaircooling@gmail.com
Visit us: www.rbkaircooling.com
+91-9875223999, 9928418358