

Breathe healthy with
100% fresh-clean-cool air

IDECool

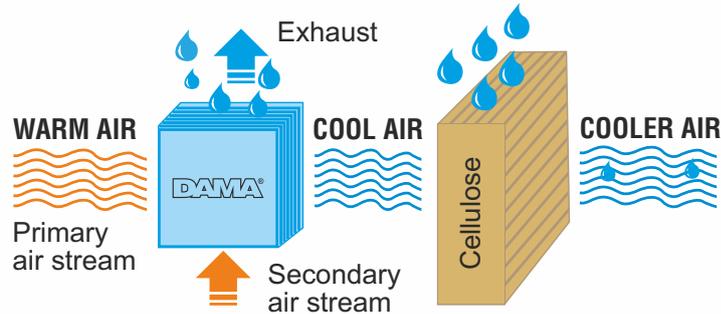
Two Stage Evaporative Air-Cooling



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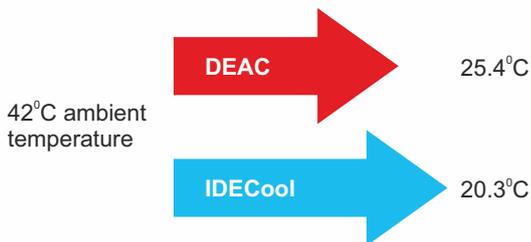
Two Stage Evaporative Air Cooling

The HMX-IDECool is an upgrade over conventional air-coolers using HMX's patented Indirect Direct Evaporative Cooling technology (also known as two-stage evaporative air cooling). This cooling solution consumes considerably less power than air-conditioners and provides better comfort than ducted evaporative coolers, bringing evaporative air cooling technology a step closer to air-conditioning.

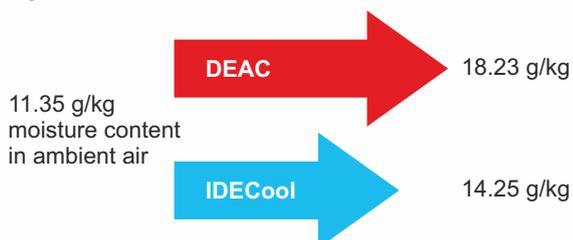


How the IDECool scores over Ducted Evaporative Air Coolers (DEAC)

Up to 5°C better cooling



Up to 60% less moisture



The result: advantage user

- 40% less air quantity required to cool the same space
- 40% reduction in ducting volume
- Considerably lesser moisture addition leading to enhanced comfort levels and water savings
- Optimal power consumption

Commercial Establishments



IDECool 6



Smooth starting and no inrush current



Variable-speed blower for high saving

Technical specifications

Description	IDECool 6
Type	Blow through design
AHU box construction	Single skin pre coated GI
Supply configuration	Modular
Type of blower	Backward curved DIDW, dynamically balanced
Make	Kruger
Air flow machine outlet (CFM/CMH)	6000 / 10140
Make of motor	Rotomotive / Bharat Bijali / CG
Blower motor specifications	EEF2/IE2 motor
Type of drive	V-Belt drive 2SPA
Total power consumption (kW)	2.1
Blower speed	Variable speed
Make of sensible heat exchanger	HMX- DAMA
Material of adiabatic heat exchanger/make	Treated and impregnated special cellulose material of 100 mm thick, Eco Cool/equivalent
Make/type/size of filters	Flanged filter of 90% efficiency down to 20 microns
Number of filters	3
Recirculating pumps	2 submersible, 60 W single phase pumps
Dimensions W x D x H (mm)	1200 x 2200 x (1800 + 150*)
Operating weight (kg)	500
Modes of operation	Three modes of operation - ventilation, IEC, IDEC

* 150 mm is the height of the secondary air outlet

Industrial Establishments



IDECool 10, 15 & 20



Technical specifications

Description	IDECool 10	IDECool 15	IDECool 20
Type	Blow through design		
AHU box construction	25 mm double skin puff panels with extruded aluminium hollow profiles for structural support		
Supply configuration	Semi knocked down	Completely knocked down	
Type of blower	Backward curved DIDW, dynamically balanced		
Make	Nicotra		
Air flow machine outlet (CFM/CMH)	10000 / 17000	15000 / 25500	20000 / 34000
Make of motor	Rotomotive / Bharat Bijali / CG		
Blower motor specifications	IE2, TEFC 4P, Class F insulation, S1 continuous duty, IP55 protection		
Type of drive	V-belt drive 2SPB		
Total power consumption (kW)	5.5	9.2	11
Blower speed	Single speed		
Make of sensible heat exchanger	HMX-DAYVA		
Material of adiabatic heat exchanger/make	Treated and impregnated special cellulose material of 100 mm thick, Eco Cool/equivalent		
Make/type/size of filters	Panel filter of 90% efficiency down to 10 microns/610 x 610 x 50		
Number of filters	8	9	12 + 04 (Half filters)
Recirculating pumps	2 submersible, 250 W single phase pumps		
Dimensions W x D x H (mm)	1850 x 3200 x (1800 + 150)	2150 x 3700 x (2225 + 150*)	2400 x 4250 x (2575 + 150*)
Operating weight (kg)	2100	2700	3300
Modes of operation	Three modes of operation - ventilation, IEC, IDEC		

* 150 mm is the height of the secondary air outlet

IDECool 25 & 30



Technical specifications

Description	IDECool 25	IDECool 30
Type	Blow through design	
AHU box construction	25 mm double skin puff panels with extruded aluminium hollow profiles for structural support	
Supply configuration	Completely knocked down	
Type of blower	Backward curved DIDW, dynamically balanced	
Make	Nicotra	
Air flow machine outlet (CFM/CMH)	25000 / 42500	30000 / 51000
Make of motor	Rotomotive / Bharat Bijali / CG	
Blower motor specifications	IE2, TEFC 4P, Class F insulation, Duty-S1 continuous, IP55 protection,	
Type of drive	V-Belt drive 2SPB / 3SPB	
Total power consumption (kW)	15	18.5
Blower speed	Single speed	
Make of sensible heat exchanger	HMX- DMA	
Material of adiabatic heat exchanger/make	Treated and impregnated special cellulose material of 100 mm thick, Eco Cool/equivalent	
Make/type/size of filters	Panel filter of 90% efficiency down to 10 microns / 610 x 610 x 50	
Number of filters	16	20
Recirculating pumps	2 submersible, 250 W single phase pumps	
Dimensions W x D x H (mm)	2850 x 4500 x 2800	3400x 4450 x (2725+150*)
Operating weight (kg)	3300	3500
Modes of operation	Three modes of operation - ventilation, IEC, IDEC	

* 150 mm is the height of the secondary air outlet

Outlet temperature chart

The reduction in temperature possible will depend on both the Dry Bulb Temperature (DBT) and prevailing Relative Humidity (RH). The chart below indicates the temperature at machine outlet against various combinations of DBT and RH.

Ambient temperature DBT (°C)	Relative Humidity (RH)								
	10%	20%	30%	35%	40%	45%	50%	55%	60%
	Machine outlet temperature (°C)								
28	7.7	11.2	14.2	15.6	16.9	18.1	19.3	20.4	21.4
30	8.7	12.4	15.6	17.1	18.4	19.7	20.9	22.1	23.2
32	9.6	13.6	17.1	18.6	20.0	21.4	22.6	23.8	24.9
34	10.6	14.9	18.5	20.1	21.6	23.0	24.3	25.5	26.7
36	11.5	16.1	19.9	21.6	23.2	24.6	26.0	27.3	28.5
38	12.5	17.4	21.4	23.1	24.8	26.3	27.7	29.0	30.3
40	13.4	18.6	22.9	24.7	26.4	28.0	29.4	30.8	32.1
42	14.4	19.9	24.3	26.2	28.0	29.6	31.1	32.5	33.9
44	15.4	21.2	25.8	27.8	29.6	31.3	32.9	NA	NA
46	16.4	22.5	27.3	29.4	31.3	33.0	34.6	NA	NA
48	17.4	23.8	28.8	31.0	32.9	34.7	36.3	NA	NA

The IDECool advantage



100% fresh, clean, cool air

- Maintains excellent indoor air quality
- Healthy conditions for the human body



Up to 5°C more cooling compared to direct evaporative air-coolers

- Easily maintains temperatures below 30°C
- Ideal temperature conditions for both man and machine



Up to 80% less power consumption compared to air-conditioners

- Low operating cost
- Low carbon footprint



Up to 60% less moisture addition in air compared to direct evaporative air-coolers

- Supplies drier air compared to direct evaporative air-coolers
- Can be used even in the monsoon season



High level of filtration

- Supplies clean air
- Keeps indoor areas clean



3 modes of operation – IDEC, IEC and ventilation

- Modes can be selected based on ambient weather conditions
- All weather cooling solution



Positive pressure system

- Prevents ingress of dust
- Drives out harmful contaminants



Robust and compact design

- The body of the machine doesn't get damaged when exposed to harsh weather conditions
- Long product life



Non refrigerant and compressor based technology

- No harmful gases used
- Sustainable cooling solution



Blow through design

- Blower doesn't come in contact with moist air
- Zero chance of blower rusting



Marketed and sold by a network of Channel Partners

- Well spread out sales and service network
- Efficient and reliable sales and after sales service support



Experience of over 20 years in the field of Indirect Evaporative Cooling

- Well engineered products
- 500+ happy customers across the globe

Our cooling solutions are proven in...



Retail outlets



Restaurants



Common areas



Injection moulding areas



Dining areas



Gymnasiums



Kitchens



Manufacturing sheds



Assembly lines



Classrooms



Auditoriums



Packing areas



Banquet halls



Offices



Body shops



Temples



Sports complexes



Panel rooms



Atriums



Warehouses



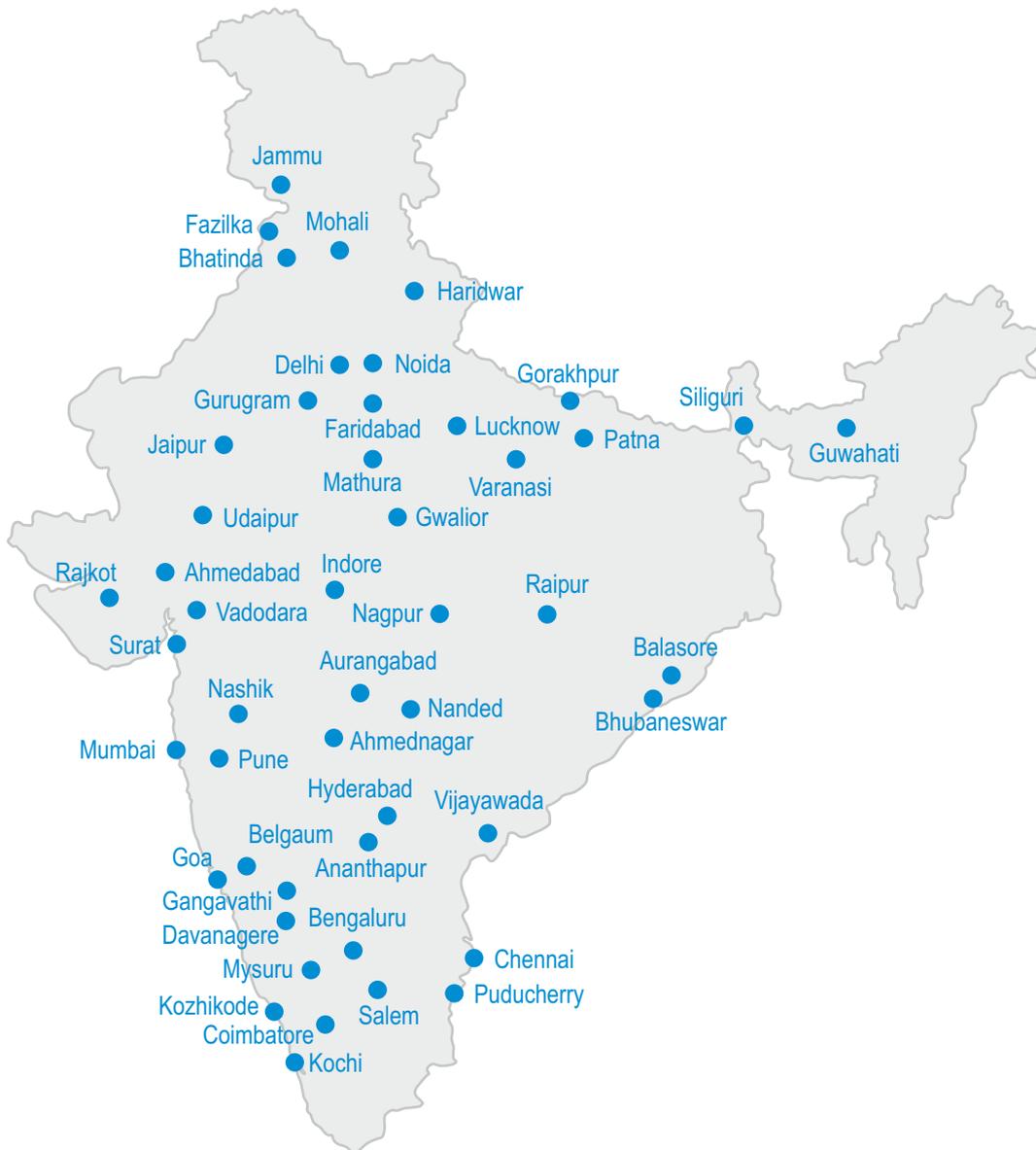
Workshops



Green buildings

...and many more...

Our installations



About HMX

HMX is a business unit of the 80+ years old A.T.E. Group. HMX has been in the business of providing eco-friendly cooling solutions based on Indirect Evaporative Cooling (IEC) since 1998 and it designs and manufactures innovative, next generation products for space and process cooling.

At the heart of every HMX product is **DAMA** - HMX's proprietary, patented cross flow plate type sensible heat exchanger optimally designed for efficient cooling.

HMX's commitment to quality is unequivocal: it is certified under ISO 9001:2015 for all its processes, and its manufacturing practices ensure that HMX's products are of high quality and meet specific customer requirements and industry standards.



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