HMX
COOLING & HEATING

presents

FAAC

A revolutionary cooling concept
– eco-friendly and economical

FAAC brings to you the best of both worlds of Indirect Direct Evaporative Cooling and Refrigerated Air Conditioning

The HMX-Ambiator which works on the principle of indirect direct evaporative cooling, using HMX's patented DAMA® technology, has been a resounding success since its introduction across industrial and commercial sectors. It provides 100% fresh-cool-clean air, through much of the year for many parts of the country, resulting in improved people comfort, process efficiency and productivity. With more and more leading corporates opting this innovative technology, its installation base has been expanding rapidly, which has already crossed 70 million CFM across India.

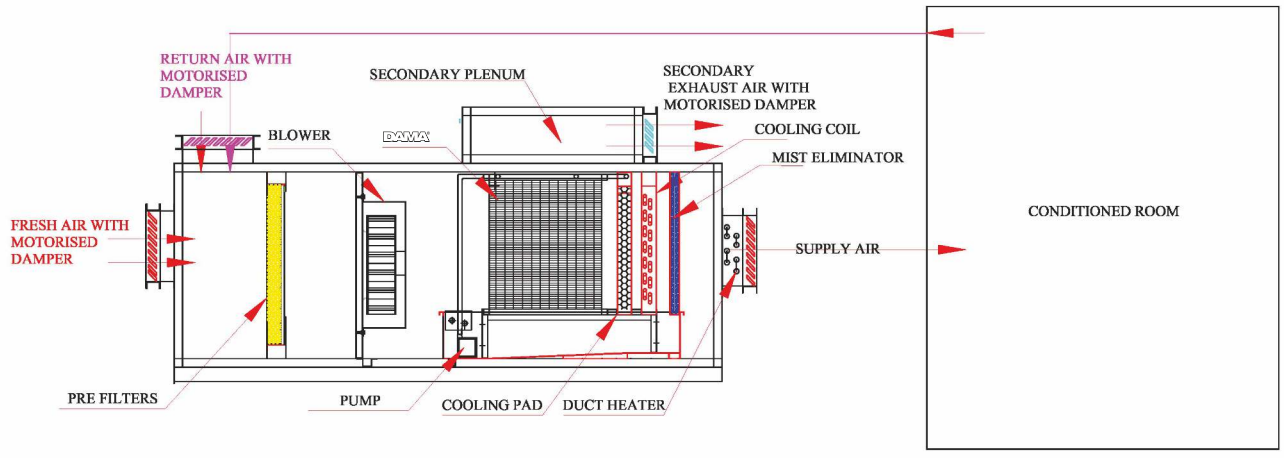
As a result of continuous R&D, HMX has now introduced FAAC (Fresh Air Air Conditioner) designed to provide comfort in all seasons, bringing in the best of both worlds of indirect direct evaporative cooling and refrigerated air conditioning – a revolutionary concept in comfort cooling.

FAAC – different modes of operation to suit prevailing ambient conditions

Fresh Air Air-Conditioner (FAAC)

- Ventilation mode: only fresh air
- Indirect evaporative cooling mode: only DAMA® (sensible heat exchanger)
- Ambiator mode: indirect + direct evaporative cooling
- Fresh air pre cooling mode: DAMA® + cooling coil
- Air conditioner mode: cooling coil with recirculation air
- Heating with humidification mode: cooling pad + heater with recirculation air.
- Heating mode- heater with recirculation air

Concept - design



Key features:

- Motorised dampers are connected to each of the fresh air, return air and secondary air passage.
- Depending on the ambient wet bulb temperature, the HMX unit will run in indirect direct mode, ventilation mode, fresh air pre cooling mode, air conditioning or heating mode.
- During the operation in air conditioning and heating mode, the secondary exhaust and fresh air dampers close completely and then the return air dampers opens so that system works in closed loop.
- In the Ambiator mode, the return air damper closes completely and the fresh air and secondary air dampers are opened.
- In winter, the unit will switch over to recirculation mode by closing fresh air and secondary air damper.
- A BMS compatible PLC controller is programmed to select the mode of operation automatically as per the set point and the weather.

Mode of operation

Mode of operations	Blower	DAMA pump	Cooling pad pump	Cooling coil	Fresh air damper	Return air damper	Secondary air damper	Heater
Ambiator	ON	ON	ON	OFF	ON	OFF	ON	OFF
PCU-F	ON	ON	OFF	ON	ON	OFF	ON	OFF
Ventilation	ON	OFF	OFF	OFF	ON	OFF	OFF	OFF
Air conditioning	ON	OFF	OFF	ON	OFF	ON	OFF	OFF
Heating mode	ON	OFF	ON	OFF	OFF	ON	OFF	ON

Applications:

- Finished goods storage area
- Office cooling
- Hotels - common area
- Factory shed cooling
- Residential cooling
- Space/spot cooling

Present installations:

1. Finished goods storage area cooling – Himalaya Drugs, Bangalore
2. Office cooling – A.T.E. Sari – Ahmedabad.

HMX COOLING & HEATING

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