

Case Study

HMX-FAAC makes storage of drugs safe and cost effective

Background

The Himalaya Drug Company is a leading multinational medicinal drug company. It produces health care products under the name Himalaya Herbal Healthcare. It has grown manifold and is spread across locations in India and abroad. Today, brand Himalaya is synonymous with safe and efficacious herbal products; their products are prescribed by 400,000 doctors worldwide and millions of customers trust them for their health and personal care needs.

Challenges

Himalaya's state-of-art factory in Bengaluru commenced operation in 2006 and is spread over 200 acres. Its existing finished goods warehouse of approximately 16,000 square feet area faced issues of maintaining a constant temperature inside throughout the year. This had an adverse effect on the stored finished goods resulting in the reduction of their shelf life.

The ideal environment to store the manufactured goods was to maintain temperatures under 26 °C throughout the year.

The management had planned to install an 80 TR air-conditioning system to maintain the desired conditions but envisaging the high operational expenditure they started to look for alternate solutions.

Solution

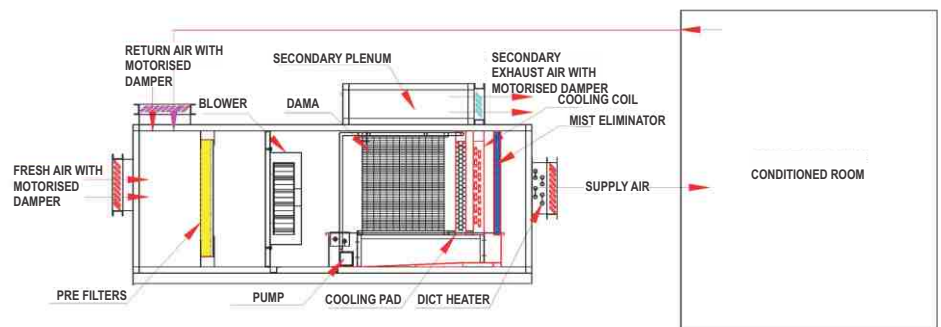
Satisfied with the performance of the previously installed HMX-IDEC systems in the raw material warehouse, Himalaya again turned to HMX for a feasible solution.

HMX carried out an extensive study of the seasonal weather conditions in Bengaluru and found out that the HMX-IDEC on its own was capable of maintaining the desired conditions for 70% time of the year. For the balance 30% time of the year, air-conditioning of the warehouse was the ideal solution. As a result an air-conditioning system of only 25 TR was required instead of the originally planned 80 TR.

This is when HMX came out with the concept of fresh air air-conditioning (FAAC). It is a revolutionary concept in comfort that brings best of both the worlds of Indirect Direct Evaporative Cooling and refrigerated air-conditioning. The FAAC is designed to provide comfort in all seasons and ideal for applications where maintaining temperature is critical.

This unit would work in evaporative cooling mode when the outside weather is hot and dry and in air-conditioning mode during the monsoon season. The switch between the two modes would be automatic, based on the ambient weather conditions.

Looking at the apparent benefits, the management at Himalaya decided to install a single HMX-FAAC unit of 25,000 CFM capacity with a cooling coil of 25 TR.



Result

Temperature readings were taken inside the warehouse after the installation of the HMX-FAAC unit, in both the summer and monsoon seasons.

Temperature recordings taken on 6 May 2015, when the unit was running in 100% fresh air mode

Unit details	Time	Ambient	Room
		DBT (°C)	DBT (°C)
HMX-FAAC 25k	01.30 pm	36.00	25.00
	03.30 pm	34.00	25.00

Temperature recordings taken on 7 August 2015, when the unit was running in air-conditioning mode

Unit details	Time	Ambient	Room
		DBT (°C)	DBT (°C)
HMX-FAAC 25k	01.30 pm	27.00	25.00
	03.30 pm	26.00	25.00

The Himalaya Drug Company is quite happy with the performance of the HMX-FAAC unit and the benefits it provides.