HMX-IDEC provides comfort to the DNA Indore printing area

Background

D B Corp Limited, informally known as the Dainik Bhaskar Group, is the largest print media company in India. It is well known for its flagship Hindi daily newspaper Dainik Bhaskar, its Gujarati daily newspaper Divya Bhaskar, and its Marathi daily newspaper, Dainik Divya Marathi, as well as other publications such as Business Bhaskar, Saurashtra Samachar, DB Star and DNA.

Challenges

The group had set up a new newspaper printing facility in Indore, Madhya Pradesh, to publish the popular English daily, DNA. The new facility was built on an area of approximately 4,000 ft² with a height of 40 feet.

Indore is a hot and dry city where the temperature soars up to 45 °C in summer. To add to the woes of the staff working there, the sensible heat load inside the newly constructed facility was a staggering 1,700,000 BTU/h. In spite of these conditions, the management wanted to maintain a maximum temperature of 30 °C inside the facility during the peak summer season. This was an extremely difficult condition to achieve keeping in mind the searing heat outside and the heat load inside the facility.

Solution

On the basis of the heat load calculation, an air conditioning system of 142 tonnes was required to maintain a temperature lower than 30 °C inside the facility. This solution was rejected because of the high capital as well as operational expenditure involved.

D B Corp Limited was already using HMX-IDEC at their printing facility at Mhape in Navi Mumbai, which is an installation of close to 300,000 CFM. It was highly satisfied with the performance of the units even during the peak summer season.

Keeping the high internal heat load and the high ambient temperatures in mind and the satisfactory experience with the HMX-IDEC, the management decided to go for the HMX solutions to provide comfortable working conditions inside the facility at Indore. HMX suggested that a total of 80,000 CFM would be required to maintain the desired condition inside. Accordingly, two IDEC units of 40,000 CFM capacity each was installed at the facility.

Result

The two HMX-IDEC units were installed and commissioned and temperature readings recorded inside the facility showed that the temperature could be maintained in the range of 26-27 °C.

HMX-IDEC 40,000 CFM (Unit 1)

Sr. No	Time	Ambient	Room
		DBT (°C)	DBT (°C)
1.	10.00 am	38.00	26.00
2.	01.00 pm	41.10	27.20

HMX-IDEC 40,000 CFM (Unit 2)

Sr. No	Time	Ambient	Room
		DBT (°C)	DBT (°C)
1.	10.30 am	38.40	26.20
2.	01.30 pm	41.50	27.00

Impressed by the performance of the HMX-IDEC at Indore, the management of DNA went ahead and replaced their existing air washer units at Ahmadabad and Jaipur with these systems.

HMX-IDEC

> "This solution has proved to be perfect for them as they got what they were looking for from a cooling solution with an excellent price-performance ratio."
>
> *– Mr Sharad Patil, General Manager – Maintenance and Facilities, DNA, Indore.*