

Case Study

HMX adds to the happiness quotient of employees at Scientechnic, Dubai

Background

Established in 1972, Scientechnic is among the top integrated infrastructure engineering solutions providers of the Gulf Cooperation Council. Scientechnic offers electrical, mechanical, power, automation, and mobility engineering solutions and is the flagship company of the Easa Saleh Al Gurg Group LLC, UAE.

Challenges

Scientechnic's sheet metal manufacturing factory is located in the Jebel Ali Industrial Area of Dubai. It manufactures electrical panels, metal enclosures, and fire hose cabinets, and serves the requirements of both the domestic and international markets.

Scientechnic recently set up a workshop for sheet metal shearing, bending, welding, and assembly. All these activities generate sensible heat inside the factory. Compounding the problem was a high ambient temperature upto 44°C, especially in the summer.

Scientechnic needed a cooling system to provide a comfortable working environment for their workers. Since the facility was a double height building, with ceilings approximately 30 feet high, and spread over an area of 35,000 square feet, cooling the space with conventional air conditioning systems was ruled out, as it would entail high operating cost.

Solution

To overcome these challenges, the management at Scientechnic approached HMX for a sustainable solution that would provide a comfortable working environment for the workers and still be economical to operate.

After a detailed study of the plant, ambient conditions, and the heat load, HMX proposed the installation of IDEC (Indirect Direct Evaporative Cooling) units with a total capacity of 60,000 CFM. HMX also suggested that they opt for 'spot cooling' instead of 'space cooling', as the main aim was to provide comfort to employees for which there was no need to cool the entire space. This would further reduce both capex and opex for this solution.

Result

With an ambient temperature of 44°C, the HMX-IDEC units are supplying air at 19.2°C. This, in turn, helps to maintain a temperature below 28°C at the work stations.

The 100% fresh, cool, and filtered air diffused to the individual working stations creates a comfortable environment around the workers, especially during the hot summer days.

HMX-IDEC units further helped create a dust free environment, thereby improving the Indoor Air Quality (IAQ). What's more, with less than half the energy consumption when compared to conventional air-conditioning systems, HMX-IDEC is proving to be a highly cost-effective solution. No wonder, Scientechnic is very happy with the performance of the HMX-IDEC units.



Installation

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