



## St Mary's school enjoys 100% fresh cooled air with HMX-Ambiator

### Background

St. Mary's School, Pune, India, was founded in 1866. It is a landmark not only in Pune but also on the educational map of the country. It educates more than 3000 students every year.

### Challenges

The school, a monument in itself, required a sustainable air cooling solution for its 5000 square feet auditorium. The school was convinced that whichever system it opted for should meet the following requirements:

- The people should feel comfortable even when the auditorium is filled to its capacity.
- The heritage building structure should not be tampered with much.
- Both the capital cost and operational expenses should be as low as possible as the school is an organisation with limited resources.
- The system should have low noise levels.



### Solution

Conventional air conditioning systems involve high capital expenditure and an even higher operating cost. This is why the school management decided to look at other solutions and approached HMX for an effective cooling solution for people comfort.

After studying the capacity and heat load required for the auditorium, HMX installed two HMX-Ambiators which would supply 22,000 CFM of air each. The HMX-Ambiator, an Indirect Direct Evaporative Cooling (IDEC) system, is an energy efficient alternative to conventional air-conditioners.

### Result

The HMX-Ambiators installed are stand-alone cooling systems working with 100% fresh air, consuming less than half the energy compared to an equivalent air-conditioning system.

Given below are the temperature recorded at site on 20 May 2014, at 12.30 pm during the commissioning of HMX-Ambiators:

Sr. No.	Unit details	Ambient		Auditorium	
		DBT (°C)	WBT (°C)	DBT (°C)	WBT (°C)
1	HMX-Ambiator 22k (Unit 1)	36.0	23.0	26.0	22.0
2	HMX-Ambiator 22k (Unit 2)	36.0	23.0	26.0	22.0

Not only are the HMX-Ambiators providing the school auditorium the desired cooling conditions, they are also helping to maintain a dust free environment. Further, as HMX-Ambiators use fresh air, they also help to dilute viral density in the air. The students are very pleased with the IAQ (Indoor Air Quality) provided to them and the management has expressed its satisfaction on the performance of HMX-Ambiators.

The school is proud to use an eco-friendly product which delivers 100% fresh cool air for its students and teachers.