



Case Study; DRY COOLER APPLICATION

CONCEPT;

EcoMESH concept is based on intermittently and efficiently evaporating water on a large mesh area in front of the heat rejection surface of **Mini-Split, Rooftop, Air Cooled Chillers, Condensers and Dry Coolers...**

Adiabatic cooling affect is provided via intermittent water spray over a wired mesh surface. Water spray provides an adiabatic cooling of 15 ~ 25 C for the incoming air stream.

It can be either initiated via an ambient sensor or alternatively by external control override.

CASE STUDY;

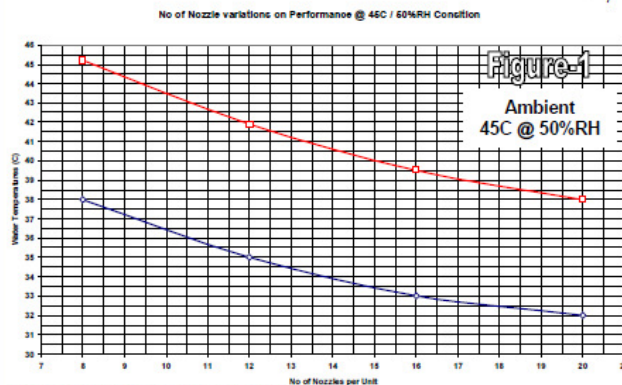
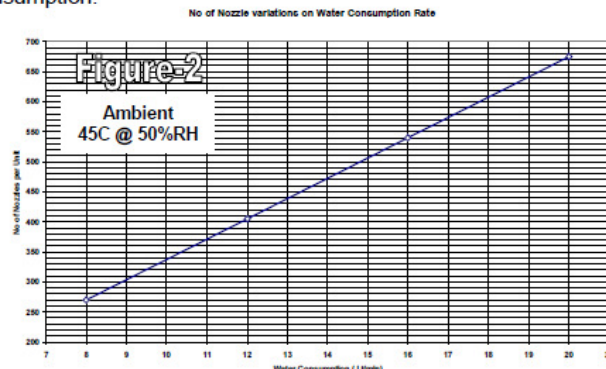
Maruti-Suzuki manufacturing plant in New Delhi, India was having problems with their cooling towers and they replaced it with 2 No, Dry coolers with 915 kW heat rejection capacity each (Total 1,830 kW). These replacement dry coolers were supplied and installed by Coil Co., India on 25th January 2003 and following a whole year's operation it is confirmed that the overall annual water consumption was 8% of the previous year's cooling tower water consumption which was recorded by a dedicated water meter.



Figure 1 illustrates the water inlet and outlet temperatures against various number of nozzles operation and Figure 2 indicates the water consumption under the same operational conditions.

Based on the client's logged data the replacement dry coolers provided as low as 32C water outlet while the ambient remained at 45C @ 50%RH.

A number of EcoMESH dry cooler nozzles were blocked to see the impact on flow rates and water consumption. As anticipated, less nozzles resulted in lower performance but lower water consumption.



BENEFITS:

- * **REDUCED RUNNING COST**
- * **QUICK RESPONSE**
- * **REDUCED WATER CONSUMPTION**
- * **FLEXIBLE SYSTEM**
- * **ELIMINATES HEALTH RISKS**
- * **LOWER MAINTENANCE**



TECHNICAL SUPPORT:

EPS offers full site as well as design back up to assist in proper selection, installation, maintenance and integration of any new or existing systems as part of our customer commitment.

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