

Lucky Textile Mill- Humidification System of Weaving



LOCATION : L-8 , Block-21, Federal 'B' Karachi-Pakistan.
<http://www.luckytextilemills.biz/>

CLIENT : Lucky Textile Mills

TEAM MEMBERS : **Mechanical & Electrical Consultants**
 Quality Air Systems
 Advanced Buildings Solutions Inc. Canada.

Construction and Project Managers
 Quality Air Systems

SCOPE OF WORK: Designing, installation and commissioning of Humidification System of Weaving Department.

PROJECT DESCRIPTION:

Client wants to design humidification system for Weaving department to manufacture quality fabric under controlled humidified environment. Quality Air Systems partner with Advanced Buildings Solutions Inc., complete this job with the implementation of energy efficiency measures such as selection of highly efficient propeller fans, efficient spray nozzle system and efficient automatic dust collection systems in order to minimize the operating costs which ultimately reduce the energy bills.

All Spray Humidifiers are used to maintained 82°F temperature with 70% relative humidity in the department. Saturation efficiency of air washers is 99% to maintain 70% relative humidity. The air changes of the department are 45/hr based on local environment conditions, building materials R-Values & other factors. Evaporative Cooling process can be achieved throughout the year. Dedicated pumps are used to lift water from the air washer tank & spray it in an air steam.

In this project, Quality Air Systems supplied, installed and commissioned wall mounted highly efficient axial flow Fans, Spray water system, Stationary water system, Horizontal Centrifugal Pumps, Stationary air Filters, Air Control Dampers etc. Four 190 ft Supply air Galvanized ducts are installed to supply air in the department.

Four Axial Flow Supply Air Fans of 1200 mm size capable of flowing 18500 CFM air are used with electric motor ratings of 18.5 kw / 1400 RPM. Centrifugal water pump of 60 ft head, 20 gpm with electric motor ratings of 1.5 kw is used.

