

Case study

Ann Arbor News

- Ann Arbor, Michigan

Mee Fog Humidifier Installation

- Mee Fog High Pressure Humidification System For Press Room, Roll Storage & Mail Room

Benefits:

- Reduced Energy Consumption
- Lower Maintenance Costs
- Tighter Control
- Improved IAQ
- \$140,000 Annual Savings

The explosive growth of the Ann Arbor area prompted the Ann Arbor News to expand their printing and distribution capabilities in 2000.

Austin Engineering was selected as the Design/Build project manager. Mee Fog and Austin have a long history of successful projects and Austin called upon Mee Fog to assist them in designing an in-space humidification system that would provide the humidity control they desired in an energy efficient manner.

In-space humidification systems utilize 1000 psi water that is passed through specially designed nozzles that atomize the water into billions of super fine water droplets which are then injected directly into the space for 100% absorption efficiency. Each nozzle has an integral ball check valve that closes when the zone is satisfied to prevent dripping.

The building has distinct areas that require humidity control. The Press Hall, Reel Room, Roll Storage and Mail Room are all sensitive to moisture levels. The humidity load in each area is high and it was determined that the best solution was to split the loads and have two Mee Fog pumps interconnected for redundancy.

In the event of a failure of a pump, the active pump can be connected to the critical areas of the plant to maintain the proper humidity control. Each area is controlled by Mee Fog FogStat humidity sensors. RO water is delivered to the Mee Fog system from the press fountain water treatment system. RO systems remove the minerals from the water and reduce routine maintenance on the system.

The Newsprint Storage area is supplied with 7,500 cfm and has a load of 250#/hr. The Press Room and Reel Room have three zones with each zone supplied by 32,300 cfm air handlers with a load of 750#/hr each.

The Mail Room has two zones with each zone supplied by a 22,000 cfm air handler with a load of 610#/hr. Each zone is fed by a motor operated valve controlled by the FogStat for each area. The total electrical load for this system is 7.50 kW.

Annual energy savings compared to a gas fired steam boiler is in excess of \$140,000.

Additional information can be provided by:

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Press Hall With Four Zones