

# Case study

## **Milwaukee Journal Sentinel Production Facility**

- **Milwaukee, WI**

### **Mee Fog Humidifier Installation**

- Mee Fog High Pressure Humidification System
- Press Hall, Reel Room & Roll Storage Area

#### **Benefits:**

- Reduced Energy Consumption
- Faster Throughput
- Lower Maintenance Costs
- \$75,000 Savings Per Year

The continued growth of the Milwaukee area prompted the Journal Sentinel to expand their printing and distribution capabilities in 2000.

The original design called for gas fired humidifiers to be installed on all of the air handlers serving the press hall, roll prep, reel room and mail room.

The GTS humidifiers proved to be expensive to operate and difficult to maintain in an operational condition. Maintaining proper humidity control is critical for press operation and post-printing handling.

Johnson Controls (JCI) is the site manager for building maintenance and operations and they called on 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.

Inspace humidification systems utilize 1000 psi water that is passed through specially designed



**Press Hall with the largest  
printing press in the U.S.**

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 Prep and Mail Room are all sensitive to moisture levels. The humidity load in each area is high and it is imperative that the system maintain the humidity set point. JCI wanted two high pressure pumps for redundancy configured so the Johnson Controls Metasys system could switch them over automatically for run time balance and failure mode redundancy.



**Reel Room Where Paper Rolls Are Automatically Fed Into The Bottom Of The Press**

The two Mee Fog pumps are interconnected and isolated from each other with check valves. In the event of a failure of a pump, the redundant pump can be started to maintain the critical areas of the plant at the proper humidity level.

Each area is controlled by the Metasys 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 Roll Prep room has a single control zone, The Press Room and Reel Room have four zones each . The Mail Room will be a two zone system when installed in 2007.

The total electrical load for this system is 3.75 kW with a total capacity of 2200 #/hr.

**Annual energy savings compared to the gas to steam humidifiers that were replaced is in excess of \$75,000. This project qualified for a "Focus On Energy" grant from the State of Wisconsin in excess of \$45,000.**



**Mee Fog Dual Pump System Installation**

For Further Information, Contact:

**MEE Industries, Inc.**  
**Larry Cluchey, PE**  
**800.575.6808**  
**[larry.cluchey@meefog.com](mailto:larry.cluchey@meefog.com)**