

# Case study

## **Connor-Winfield**

- New Clean Room Facility
- Aurora, IL

## **Mee Fog Humidifier Installation**

- Mee Fog High Pressure Humidification System For Four Air Handlers

## **Benefits:**

- Reduced Energy Consumption
- Lower Maintenance Costs
- Tighter Control
- Improved IAQ
- \$35,000 Annual Savings

Connor-Winfield—the fastest growing timing products supplier in North America. Connor-Winfield offers an extensive product line of Crystal Controlled Oscillators, Timing Modules and Crystals.

Connor-Winfield has experienced solid growth over the last 10 years. With this growth in mind, they decided to build a new clean room/manufacturing facility to serve their expanding customer base.

Craig Whitaker, project manager and construction coordinator for Connor-Winfield, immediately started looking for ways to design an energy efficient facility that would serve the company's needs for years to come.

The facility houses a 35,000 sq.ft. clean manufacturing room and 20,000 sq.ft. of clean support labs surrounding it, with a total volume of 710,000 cu.ft. To preserve the integrity of the clean room envelope, positive pressure has to be maintained in the room at all times. To accomplish this, large amounts of outside air are required to off set the exhaust and room leakage. The large air flows must have tight temperature and humidity control, and doing so in a budget friendly way was very important.

Connor-Winfield called upon Mee Fog to assist them in designing a humidification system that would provide the humidity control they desired in an energy efficient manner. The building has four air handlers, rated at 18,000 cfm each and operating on economizer cycles. The units are served by a single high pressure Mee Fog pump that provides 1000 psi water to the nozzle headers via staging solenoids. The system is controlled by the Trane Tracer Summit control system.

Each unit has a maximum load of approximately 180 #/hr. The load is matched by using staging solenoids that bring on nozzle headers in various combinations. Excess moisture that is not absorbed into the air stream is collected on droplet filters and drained away. The total electrical load for this system is 1.2 kW.

Annual energy savings, as compared to gas fired steam generating humidifiers, is in excess of \$35,000, with a further reduction of \$3,000 in annual maintenance costs. Whitaker says, "The system works great and controls the building humidity levels perfectly. I have had to do very little maintenance on this system and it integrated into the building management system very well. I wouldn't change anything on the Mee Fog system."

Connor-Winfield has two other Mee Fog systems in their facilities in the Aurora area.

Craig's contact information is.  
Craig Whitaker, Connor-Winfield  
2359 Diehl Road, Aurora, IL 60504  
630.851.4722, cwhitaker@conwin.com

For Further Information, Contact: Mee Industries,  
Larry.Cluchey@meefog.com

