

CASE STUDY



Pall Life Sciences

- Cleanroom Facility
- Ann Arbor, MI

Mee Fog Humidifier Installation

- Mee Fog High Pressure Humidification System For Clean Room Recirculation System

Benefits:

- Reduced Energy Consumption
- Lower Maintenance Costs
- Tighter Control

Pall Life Sciences—a leading global provider of filtration, purification, and separation technologies to the diverse and rapidly expanding life sciences market.

The solid growth of product offerings required the addition of more clean room manufacturing space. Chuck Carpenter, facilities manager and construction coordinator for the addition, immediately started looking for ways to design an energy efficient clean room that would serve the company's manufacturing needs for years to come.

The present complex has multiple clean room manufacturing areas and Pall has tried various methods of humidifying over the years. From electric steam to ultrasonic, their experience's have not been satisfactory due to high operating costs or demanding maintenance requirements.

Chuck called on Mee Fog for their input in designing an energy efficient system. 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.

Mee Fog agreed to assist them in designing a humidification system that would provide the humidity control they desired in an energy efficient manner.

The new clean room space has a custom roof mounted air handler rated at 45,000 cfm . The unit has 35,000 cfm of recirculation and 10,000 cfm of air that passes through heating and cooling coils. The Mee Fog nozzles are located in the 35,000 cfm section and humidify the recirculation air stream. A single high pressure Mee Fog pump provides 1000 psi water to the nozzle headers. System capacity is controlled by controlling the Mee Fog pump speed, which modulates the amount of water that is pumped to the nozzle headers. The system is controlled by the building control system.

Carpenter says, "The system controls the room 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."

Additional information can be provided by:

MEE Industries Inc.
800.575.6808
Humid@meefog.com