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CircuitSolver®

A ThermOmegaTech® brand

DTV Case Study

Pharmaceutical Laboratory

La Jolla, California

The Opportunity

A three-story pharmaceutical laboratory in La Jolla, California, underwent a complete remodel in 2017.



The rooftop HVAC unit was replaced and humidification was required, which presented the need for cooling of drainage water.

"The roof was constructed oddly. Due to where the drain had to terminate, we had minimal fall to work with," said Ed Parisi, Plumbing Design Manager at ICS (Industrial Commercial Systems), the contractor on this project.

"I had to get on the roof of the building to see what conditions we had to deal with. It was tough logistically to get the slope from the unit to the receptor; we had about eighty feet to travel." Parisi needed an eighth of an inch per lineal foot to complete the drainage and had about nine and a half inches of fall available.

"We had been using typical devices for cooling humidifier drain water. Some had a tank or odd configurations, but none would fit correctly. We didn't want to use a pump," Parisi notes.

The Installation

Parisi was previously introduced to the CircuitSolver product line by Chrissy Hamm of Specification Sales in Southern California. When Parisi was investigating other drainage devices, she suggested the DTV (Drain Tempering Valve).

This was Parisi's first time using a DTV from ThermOmegaTech. "I didn't even know it was available!" he said.

"Because [the DTV] just slips into the bottom of the pipe, it made it easy to overcome the lack of fall. Previously, there had been no device for the condensate drain for the steam humidifier at this location. The DTV worked perfectly because it's such a compact installation. The DTV fits into a tee with the sensor probe extending into the drain flow at the bottom of the drainpipe," says Parisi.

"The compactness of the DTV makes it a good solution. The technology is more complex but a simpler installation," said Hamm.

The Results

Parisi's team installed three Drain Tempering Valves for this project:
"We installed one DTV on the roof and one in the first-floor laboratory ceiling for a humidifier with limited fall. A DTV was also installed for the lab's autoclave in their wash/wear room," he said.

The whole renovation project took about a year. "It was very complex, with eleven different piping systems," he explains.



"The three DTVs worked well. The lab had no issues with drain water that would have been too hot for the drainage piping systems," Parisi says.

Parisi was very fascinated by this Drain Tempering Valve.

"It is one of those valves nobody else would appreciate without understanding the simplicity of this solution and installation," Parisi explains. "...the DTV is our automatic solution for these systems."

Compared to other options on the market, Parisi says ThermOmegaTech's DTV is his favorite. "Their products are first class, extremely reliable, well-engineered, and well-manufactured."

"I would recommend the DTV for the ease of installation and the lack of needing special conditions (like extra space) or other equipment. [You can] thread it into the drainpipe, connect the water supply, and it's complete," Parisi added. "The availability and convenience of getting the product from ThermOmegaTech are also well appreciated."

Have a specific drainage system project? The DTV can help! Contact us today.