United Mechanical Corporation
The Leader in Comfort and Process Mechanical Solutions

PROCESS COOLING/DEHUMIDIFICATION CASE STUDY
Valspar
Charlotte, NC

Background

The project with Valspar started with a phone call late one afternoon. Known for their vast engineering expertise with all kinds of equipment and mechanical processes, United Mechanical was called by Valspar because of some aging HVAC equipment that was running three of their powder coat lines. The equipment had been patched up over the years to keep the lines running, but ongoing quality issues were finally making it necessary to seek out a longer term solution.

Requirements

Valspar had been using two old dehumidification units to run three powder coating lines. The solution Valspar wanted was one unit—instead of two—that would run the three production lines.

Challenges

To begin with, the project had very precise air requirements, including a maintained dew point that had to be extremely low and a consistent, sustained CFM for each line—regardless if one line was running by itself, two were running, or three lines were running at the same time. There was also the added need to eliminate any CFM fluctuation while the powder coat lines come online or go offline. And finally, there was a rather complicated controls integration that had to take place.

The consequences of conditioned air or a CFM number that was not to spec would be production disruptions and further quality issues; neither which were acceptable.

The Value of United Mechanical

Not only was United Mechanical able to successfully design and install equipment that met the strict specifications they were given, they designed an installation that was very straight forward and easy for Valspar—or anyone—to work on. Valspar already had an overly-complicated system elsewhere in the plant and they did not need another one. As a turn-key mechanical company, United Mechanical was able to take responsibility for the entire project—creating the design plans, signing off the engineering drawings, installing the unit and performing the final calibration—and give Valspar one capable, consistent point of contact.