

RENTAL powerprofile

CUSTOMER: L'Oreal USA
LOCATION: Solon, Ohio

Customer Requirement: Industrial process cooling

Scope of Supply: Equipment –
Two 150-ton chillers
One 300-ton chiller
Cat 225-kW generator set

Services –
Delivery, setup and installation
Equipment testing
On-site operation and technical support
Maintenance

Cat Rental Power Dealer: Ohio Cat
Broadview Heights, Ohio



POWER NEED

The Solon, Ohio manufacturing facility of L'Oreal USA is a busy place. As one of 11 manufacturing sites in the United States alone, more than 120 million bottles of hair products (shampoo, conditioner, hair gel, etc.) will be produced at the Solon facility this year. These products will be sold under numerous brand labels including L'Oreal Professional, Redken and Matrix Essentials. The increasing production volume (plans call for doubling current volume over the next four years) creates a growing demand for chilled water for process cooling.

"A few years ago, we began a long-term project to move to chilled water for the vessels we use to make product," explains L'Oreal project engineer Greg Super. The facility previously utilized single-pass city water cooling. The city water ran through the facility's 3,000 gallon tank's jackets once before traveling to the drain. "The single-pass cooling process wasted water and was extremely inefficient when water temperatures rose to 70 degrees in the summer," recalls Super.

Chilled water is a critical element for production. Super explains, "We run close to 24/7 with a four-hour window in which we don't run, but can still cool. The entire product line is made in batch processing tanks. The faster we complete our batches, the more we can produce. Cooling is one of the larger sections of this batch process. We heat large mass quantities during mixing, which was then very hard to cool down with the old system we had. The chilled water loop makes the process more efficient."

TOTAL SOLUTIONS

To expedite the chilled water project, Super began renting chillers from Caterpillar dealer Ohio Cat. Ohio Cat sales representative Todd Pierosh has been involved for years, helping the factory with previous rental needs for unrelated processes.

The initial chilled water rental for one manufacturing building in Solon consisted of a 150-ton chiller and a Cat® 225 kW generator set, all provided by Ohio Cat. The setup was utilized for a year and a half. At that time, the system was upgraded to a 300-ton chiller, run with power from the building. The upgraded setup was utilized for another year and then replaced with capital equipment.

The most recent chiller rental includes a 150-ton chiller run off building power and is being utilized for another building on the same site. The chiller is located outside the building, in a more permanent-temporary installation on the ground. "The removal of the chiller from the trailer chassis allows easier access to the unit for preventive maintenance," explains Pierosh. The current chiller pumps chilled water from a storage tank, through the chiller, into the building's circulation loop then back to an outside storage tank.

RESULTS

The previous and ongoing chilled water rentals have saved the Solon facility both in time and water usage, Super confirms. "Water conservation is good not only from a cost standpoint, but also from an environmental aspect," he notes.

Super has been very satisfied with the installation, setup and service from the Cat dealer. Response time for emergency service has also been excellent. "The first winter we run any chiller, we always make sure to have some catastrophe where everything freezes up," jokes Super. "Our dealer responds within the hour – even on New Year's Day and at midnight on Martin Luther King Day – and has helped us bring the process back to operational."

The company's aggressive growth plans are part of the drive to move chilled water into all production vessels. "At some point we'll have to build, and at that point we'll have to rent power. Based on past performance, I'm almost certain that Ohio Cat will be called to assist us again for future needs," concludes Super.