

Process Cooling Study



Process Cooling Farmington, Ontario County

Background

Ultrafab, Inc., a 95,000-square-foot facility located in Farmington, Ontario County, manufactures weather-stripping and brushes and employs approximately 200 employees at this location.

Ultrafab has two extrusion lines that manufacture polypropylene sheet, which is extruded from a flat die and cooled over a series of chrome rolls prior to slitting and winding. Each water-cooling system consists of a primary loop for providing cooling water to each chrome roll. The primary loop is cooled via a heat exchanger with process-chilled water on the secondary side. Both chillers were air-cooled, and rejected heat into the extrusion area causing unacceptable temperatures on the plant floor during summer months.

Recommendations

Ultrafab, Inc. worked with Clough, Harbour & Associates LLP (CHA) and The New York State Energy Research and Development Authority (NYSERDA) to conduct a study that would identify the most cost-effective and energy-efficient method to modify the system and reduce the need for operating the chillers. Primary side passive cooling was recommended as the most viable option and installed by Ultrafab, Inc. with the help of the **New York Energy SmartSM** Commercial and Industrial Performance Program and CHA Tech Services. NYSERDA provided an incentive of \$21,000 based on annual electricity savings of 158,000 kWh.

Initiatives and Results

The cost of installing the system, after accounting for NYSERDA's incentive, was **\$101,000**. With an annual savings of approximately \$14,000, Ultrafab will recover its investment in just over 7 years. Through this project, Ultrafab, Inc. was able to improve environmental conditions in its manufacturing facility and reduce its energy costs.

New York Energy SmartSM

All **New York Energy SmartSM** programs are funded by a System Benefits Charge (SBC) paid by electric distribution customers of Central Hudson, Con Edison, NYSEG, Niagara Mohawk, Orange and Rockland, and Rochester Gas and Electric. NYSERDA, a public benefit corporation established by law in 1975, administers SBC funds and programs under an agreement with the Public Service Commission.

New York Energy SmartSM programs are designed to lower electricity costs by encouraging energy efficiency as the State's electric utilities move to competition. The programs are available to electric distribution customers (residential, commercial, institutional, and industrial) who pay into the SBC.

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"This project at Ultrafab would not have been pursued without the assistance provided by NYSERDA."

- Joseph Bridgeford
Vice President
Ultrafab, Inc.



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