

# Tech Scouting Client Invests in New Solutions to Improve Heat Exchanger Manufacturing Process



## The Problem/Need

Chart Energy and Chemicals designs and manufactures Brazed Aluminum Heat Exchangers at their La Crosse, Wisconsin location. Each heat exchanger contains thousands of individual, high tolerance components. Chart Energy wanted to improve a proprietary process but was frustrated by the amount of time it was taking them to move the improvement process forward and manage the demands of a dynamic, sophisticated manufacturing plant.



## Project Outcomes

- Conducted an in-depth needs assessment to fully understand the client's requirements.
- Located possible technologies and methods used in unrelated industries such as capacitors, extruded plastics, jet engine airfoils and engineered foams.
- Identified one technology that produced repeatable outcomes independent of operator technique, and another that provided a better method of quantifying changes in the process.

## Key Requirements

Chart Energy wanted to develop an improved process control that would:

- Reduce dependency on operator skill.
- Result in repeatable measurements across all operators.
- Determine rapid, accurate measurements to correlate process inputs to process outputs.
- Make data capture and recall available to all process operators.



## Project Impact

As a result of the project, Chart Energy and Chemicals:

- Engaged with the solution providers NMWOC recommended after NWMOC facilitated initial contact.
- Purchased, installed and implemented two new pieces of equipment totaling over \$200,000.
- Identified solutions that are accurately and consistently solving their problems.

*"The new technology has allowed Chart to improve our process in ways we didn't know were possible."*

– Chris Veum, Pre-Braze Manufacturing Engineering Leader, Chart Energy & Chemicals

