

CERTIFICATION AND PROCESS IMPROVEMENT IMPROVES MANUFACTURER'S COMPETITIVENESS

BACKGROUND:

Established in 1987, **Howman Engineering** is a U.S. designer and manufacturer of electronic and electromechanical controls. A full-service supplier Howman Engineering produces what they design. Howman Engineering's in-house engineering and management staff works closely with its customers to develop custom electronic and electromechanical control products. The company's capabilities include extensive expertise in Design for Manufacturability (DFM) and Design for Testing (DFT) procedures.

Howman's control panels and other electromechanical controls are assembled in its Lebanon New Jersey facility. The company's extensive business partnerships with local and regional contract manufacturers and top distributors of quality electronic and other critical components allows Howman to stay competitive and manufacture in the United States. It also helped the company maintain customer production schedules and deliveries throughout the turmoil of the 2004 and 2011 Pacific tsunamis and Superstorm Sandy in October 2012. Its customers recognize the importance of Howman Engineering's exceptional on-time delivery record and its zero-defect policy through 100% product testing.

CHALLENGE:

In spite of its success, Howman needed to improve its production processes and train their employees in best practices to keep its costs in line. Most of the company's workers had not worked at other facilities or been exposed to other production techniques. To meet its objectives Howman would need to expose them to improved working methods to gain a competitive edge to win contracts and sales.

SOLUTION:

Mitchell Ouverson, Purchasing/Technician of Howman, was referred to New Jersey Manufacturing Extension Program, Inc. (NJMEP) by DVIRC, a Pennsylvania member of the NIST MEP network. NJMEP's Account Manager met with Mr. Ouverson to determine how best to meet his needs. To do this a Lean Opportunity Assessment was conducted. The results confirmed implementing lean production methodologies would produce the results needed. During discussion, it was also determined that employees needed to receive training on soldering techniques.

Howman had recently made a number of capital investments making cost containment an important requirement in putting a training program in place. With the help of NJMEP, they applied for a New Jersey Department of Labor Skills4 Jersey training grant. The grant would enable Howman to move the training along on a much faster pace than would otherwise have been possible.

Approval of the grant enabled NJMEP to conduct training in two Lean tools -Value Stream Mapping and 5S and IPC Training and Certification. Value Stream Map training would give employees the ability to analyze any process within the company and determine how to improve it. 5S is the name of a workplace organizational method based on five Japanese words: seiri, seiton, seiso, seiketsu and shitsuke. The objective of 5S is to organize workspace for efficiency and effectiveness. Both tools are integral elements for implementing Lean manufacturing. IPC Training would improve soldering skills.

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RESULTS:

Howman's Training program resulted in a number of benefits:

- Lean training improved productivity and costs were reduced by about 10%.
- On time delivery is close to 100%.
- Soldering expertise improved. Solderers were now able to solder 10-15% faster with fewer defects.

In addition, there was a positive impact to its HR plan as Howman has grown its employees' expertise. When completing the grant close-out report Mr. Ouverson wrote, "The training enabled our company to drive down the costs and inefficiencies in our process allowing us to remain competitive in price and delivery times by introducing alternative methods of production which opened our eyes to other ways to improve our processes. Our customers are very satisfied with our performance." He also added, "We are planning on continuing the lean training and possibly some supervisory training as well for some of our employees and we will work with NJMEP again as we are very satisfied with the support that they have provided us."

When completing the 3rd party survey conducted by NIST 6-9 months after the completion of the project Mr. Ouverson reported:

- **Increased Sales of \$50,000**
- **Invested \$10,000 in new products and processes**
- **Achieved an overall cost savings of \$20,000 which includes saving in training costs.**

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