

PURDUE MEP SUPPORTS ADVANCED MANUFACTURING SKILLS TRAINING WITH DEFENSE FUNDING

ABOUT AD-VANCE MAGNETICS, INC. Ad-Vance Magnetix, located in Rochester, Indiana, is an ISO 9001:2015 certified company specializing in room temperature and cryogenic magnetic shielding, precision sheet metal fabrication, laser cutting and machining. They produce custom-fabricated magnetic shields from nickel alloys for aerospace, commercial, medical, military, and scientific applications. Their services include laser cutting, press brake forming, shearing, stamping, hydroforming, deep drawing, spot welding, heliarc welding, heat treating, machining and metal spinning.

THE CHALLENGE. There were two significant challenges that prompted Ad-Vance Magnetix to seek the support of Purdue MEP, part of the MEP National Network™. First, there was a significant backlog of press brake work as a result of increased semiconductor/chip industry demand. Second, the complexity of their coordinate-measuring machine (CMM) software required additional training to maintain operational effectiveness and efficiency.

MEP CENTER'S ROLE. Utilizing funding provided by the Office of Local Defense Community Cooperation (OLDCC), Purdue MEP was able to assist Ad-Vance Magnetix with an Amada press brake multi-bend programming and operation training to efficiently use the equipment and reduce the time to produce each part. In addition, Purdue MEP provided technical skills training in CMM technology, enabling Ad-Vance to utilize the software at full capacity. The funding supported CMM Vision Scan Training, CMM DotScan Training, and CMM Rotary Table Training for five employees.

Prior to Purdue MEP's assistance, Ad-Vance Magnetix was facing a 2-3 week backlog of press brake work. The purchase of the Amada press brake and the OLDCC-funded training enabled Ad-Vance to eliminate its production backlog because this press brake, when used to its full capability, allows the operator to program multiple bends, thus reducing the time to produce each part.

In addition, the CMM technology training enables Ad-Vance to fully capture the benefits of this software. For example, the ability to scan an entire pallet without operator intervention allows the two quality assurance employees to complete other manual scans while the automated pallet scans are in progress. Scans can also be programmed to occur overnight which further enhances the QA department output. With the increase in the production output at Ad-Vance, the CMM automation capability prevented the addition of personnel in the QA department. The combination of these results significantly contributed to a 40% revenue increase at Ad-Vance Magnetix and the employment of two additional people.

"Our customers expect Ad-Vance Magnetix to deliver with precision, meet their delivery dates with reasonable lead times, and provide a competitive price. The CMM and Press Brake training, supported by Purdue MEP and OLDCC funding, enabled us to maintain product precision with increased throughput."

-Derrick Vance, President

RESULTS



2 jobs created



Significant contribution to **40%** revenue growth



2 week plus backlog reduction for semiconductor/chip industry components



5 people trained in CMM technology/software

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