

SUPERIOR QUALITY, NEW MARKETS: PURDUE MEP CLIENT'S DEFENSE INDUSTRY ENTRY ENABLED BY A QMS

ABOUT ESTES DESIGN AND MANUFACTURING, INC. Estes Design and Manufacturing is a full-service sheet metal fabricator. They offer customers a combination of product design, engineering, rapid prototyping, and manufacturing services using advanced technology, including 3D laser welding. Their services are used across a broad range of product and industry applications, including medical equipment, appliances, HVAC, office furniture manufacturing, and aerospace.

THE CHALLENGE. In 2023, Estes management set a strategic goal to pursue business opportunities in the aerospace/defense industry. AS9100D certification is required to gain access to many Prime Contractors in this industry. To achieve this additional ISO certification, Estes sought the assistance of Purdue MEP. It was believed that the more demanding AS9100 QMS would help Estes elevate the quality of its products to a world-class level and, more importantly, create business opportunities to strengthen and diversify its sources of revenue.

MEP CENTER'S ROLE. With grant funding, Purdue MEP provided a qualified, credentialed subject matter expert to train and guide all implementation activities, ensuring a full understanding of the AS9100:2016 requirements. In addition, Purdue MEP conducted an internal audit to assess Estes's QMS, verifying its conformance with the current AS9100 standard and the effectiveness of its implementation.

Estes observed several results, including improved product quality, streamlined QMS policies and procedures, increased employee engagement, and projected revenue growth.

During the engagement with Purdue MEP on the AS9100D certification project, Estes has achieved a defective parts per million (dppm) of 110 for its largest customer. The world-class standard is considered to be 700-800, so this places Estes in an elite class of quality part production.

An added benefit was that Estes consolidated their ISO 9001, ISO 13485, and AS9100D Quality System Procedures (QSPs) into a single set of documents, making it easier for both employees and auditors. This resulted in shorter lead times, high delivery reliability, and consistently high quality of services and products, as indicated by the dppm improvement. The optimized procedures and processes in their operations allowed them to save countless hours from the shop floor to the C-suite. In addition, with the AS9100D certification, Estes is targeting \$500,000 in increased revenue over the next 12 months.

"At Estes, we want to be part of the onshoring of the design, development, and manufacture of aviation, space, and defense products and want to support the warfighters of the US and its allies. With funding support from OLDCC, coupled with the expertise of Purdue MEP, we are well-positioned to do this."

-Ron Estes, Sr. VP Strategy

RESULTS



Targeted **\$500,000** in increased revenue over the next 12 months



Improved product quality - **110** dppm for their largest customer



Shorter lead times, high delivery reliability, and consistently high-quality services and products



Increased employee engagement and excitement due to working on DoD missile-related product

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Manufacturing Extension Partnership