

MCS MACHINE WORKS: FAMILY ROOTS, MODERN PRECISION, AND THE POWER OF CONTINUOUS IMPROVEMENT

ABOUT MCS MACHINE WORKS. What began as a small consulting business in 1990 has evolved into one of the Triangle's most trusted CNC contract manufacturing companies. [MCS Machine Works](#), a family-owned precision machining company based near the Research Triangle Park (RTP), serves industries ranging from aerospace to medical devices, embodying a legacy of innovation, adaptability, and continuous improvement spanning generations.

THE CHALLENGE. Transforming Operations Through Certification and Partnership

MCS Machine Works' partnership with [NC State University's Industry Expansion Solutions \(IES\)](#) marked a pivotal moment in the company's growth. With IES's guidance, the company earned three major certifications—AS9100D (Aerospace), ISO 13485 (Medical Devices), and ISO 14001 (Environmental Management)—making it one of the few small manufacturers in North Carolina to achieve all three at the time.

"These certifications seemed out of reach at first," Kyle recalled. "But with Mitch Poteat and the IES team leading the process, we realized we could do it. They guided us every step of the way. We truly couldn't have done it without them."

The impact was immediate. Certification opened doors to new markets and partnerships with some of the world's largest pharmaceutical and technology companies. "We're now working with a major pharmaceutical company here in RTP," Tyler said. "That relationship wouldn't have been possible without ISO 13485. The certifications gave us the credibility and structure we needed to compete with much larger manufacturers."

MEP CENTER'S ROLE. Operational Excellence and Cultural Change

The certification journey also transformed how the company operates day-to-day. "We thought 'quality' meant just making good parts," Kyle said. "But we learned it's about every aspect of the business—from how you train employees to how you manage environmental impact."

Implementing the systems required for certification introduced a new level of structure and efficiency. "It's now our operating system," Tyler added. "It changed our culture for the better. We're more organized, proactive, and sustainable."

In particular, the ISO 14001 environmental certification has become a powerful differentiator. "We were surprised by how much our customers cared about environmental standards," said Kyle. "It's the certification we're asked about most often. Being able to say we're environmentally certified has given us a real advantage."

The company continues to use environmental impact reports from IES to track recycling, stormwater runoff, coolant reuse, and other sustainability metrics.

"It's not just about compliance—it's about accountability," Kyle explained.

"We're proud of the cleaner, more efficient operation we've built."

A Growing Business with Measurable Impact

Since partnering with IES, MCS Machine Works has grown from 13 to 17 employees, strengthened retention, and reported an **economic impact of more**

RESULTS



\$750,000 in
increased/retained sales



\$150,000 in new investment

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than \$915,000, including \$250,000 in increased sales, \$500,000 in retained sales, and \$150,000 in new equipment investments.

“We’ve expanded our customer base, invested in new technology, and offered full health insurance and competitive pay to our employees,” said Kyle. “That’s a direct result of becoming a stronger, more disciplined company.”

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-Kyle and Tyler Appel, Vice Presidents