Collaborate with Us

Our **concept-to-completion** capabilities allow us to quickly respond to client needs and provide optimal solutions with **shorter turn-around times.**

Having all aspects of technology and engineering in one location allows for experience and knowledge to be shared among members during all stages of our projects.

About Us

The Technology Application Center is a dedicated workspace for accelerating the development of products and solutions through collaboration, rapid prototyping and testing.

The facility contains collaboration space, robotics, a state-of-the-art machine shop, metal and plastic additive manufacturing, and NDE capabilities.

The Technology Application Center is cost-effective engineering that enables faster response, improves safety and productivity, and quickly verifies return on investment.

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SIEMENS energy

Technology Application Center

Engineering Solutions

Orlando Innovation Campus | Orlando, Florida

Engineering Solutions

The Technology Application Center (TAC) delivers custom solutions using an interdisciplinary set of skills: robotics, optics, electrical, mechanical, design, software, machining, and non-destructive evaluation.

Collaborating with the TAC means leveraging extensive multi-disciplinary experience in research and development, prototyping, proof-of-concepts, feasibility studies, and design for manufacture.

Turn-Key Integrated Solutions: Direct Air Carbon Capture System Demonstration

Our team of engineers excel in diverse fields, delivering a fully operational system ready for handoff, showcased in our Direct Air Carbon Capture System Demonstration.

The demo included a steam skid, featuring a mechanical system, advanced control system, and a developed and tuned motor system. The entire system was manufactured, assembled, tested, and handed off, ready for operation.

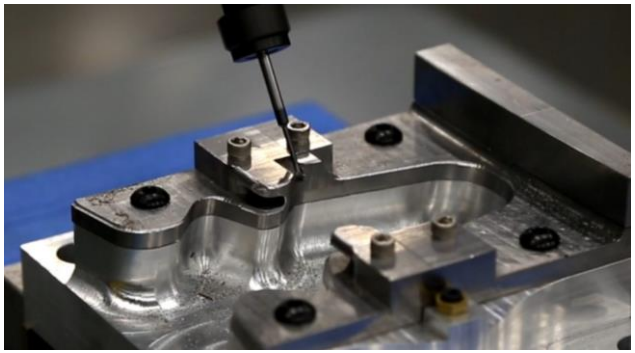
At the TAC, we manage every aspect of the project, culminating in a high-quality, fully integrated final product that is seamless from start to finish.

Controls and Panel Building

The TAC team excels in building both electrical and control panels, supported by a full suite of equipment, engineers, and technicians. We offer in-house fabrication, building and testing of panels, handling both high and low voltage, and working with distributed control systems across various platforms.

Automated Deburring

The TAC is helping reduce the hour-long manual deburring process of turbine and compressor disks. In this automated approach, the disks are placed in a known position for the tool to identify all the locations that need to be deburred. Using this process, deburring most geometries takes less than 30 seconds, while more complex geometries take approximately one minute.



Flow Test System

The OIC has developed a test system to measure the flow of air through various components. The system can perform leak tests to ensure test setups are airtight, and flow tests through sonic nozzles to accurately determine the mass flow rate. Developing this system in-house allows our team to have full control of test configurations and software, enabling us to work directly with any Siemens Energy supplier or repair center.

Water Sensors

The TAC team developed sensors to detect water that is not usually present in units. The sensor was designed to withstand high temperatures, extreme pressure, and be electrically resistive. By detecting water, the sensors provide an alarm to a DAQ or PLC to notify the operator of the presence of water.