

THE POWER OF POSSIBILITY







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At Quatro, innovative solutions are born from a belief that anything is possible.

Responsive customer service begins with an understanding that every component is critical to our clients. And, extraordinary results are achieved when the right people and the right technology combine to create something better...lighter...stronger.

ENGINEER-TO-ENGINEER COLLABORATION

By applying complex technology to create simple solutions, we design and develop complex carbon fiber composites for the aerospace, military and medical industries.

We're ready to go to work for you.

MISSION

Engineering and manufacturing advanced composite structures for our customers in aerospace, medical and industrial markets with integrity and stewardship.

VISION

Developing and providing advanced technologies that are lighter, safer and stronger.

CUSTOMER PROMISE

You can count on Quatro Composites to solve problems with ingenuity, serve beyond the expected and always believe in the possibilities.



ENGINEERING, DESIGN & DEVELOPMENT

Quatro's philosophy of engineering, design and development?
We call it The Power of Possibility.

LET'S TALK ENGINEER TO ENGINEER

San Diego-based engineering and Iowa-based production teams take your project at any step along the design process – from concept sketch to final fabrication drawing – and bring it to full-scale commercialization and production rapidly and efficiently.

LET'S INNOVATE TOGETHER

At Quatro, we work with our clients – any way you want. We take your data in its native form, manage it through our tooling and manufacturing process development while ensuring geometric integrity at every step.

Quatro's design team specializes in composite structural design and design for manufacturability.

We have a strong success record for converting metallic structures into composite structures and achieving equivalent, or better, performance while significantly reducing weight.

Plus, our engineering support continues well after the design and development stages of your project. We'll work with you to ensure the commercialization process is complete through production, including all quality certification and compliance hurdles required by your industry (FAA, FDA, USDA, etc.).

QUATRO DESIGN SOFTWARE SUITE

Design

CATIA™ V5

View CAD Models and Drawings

Comply with FAA (Federal Aviation Administration)

Certification Policies

SOLIDWORKS™

Design and Drafting

Model Based Definition (MBD)

SOLIDWORKS™ ENTERPRISE PDM

Product Data Management Control

PRO/ENGINEER™

Foundation Modeling and Drafting

AUTOCAD LT®

2D Design and Drafting with Full DWG Compatibility

FIBERSIM

Specifies Laminates and Selects Ply Creation Methodologies

Analysis

HYPERWORKS™

LABVIEW™

COMPOSITEPRO™

COSMOS

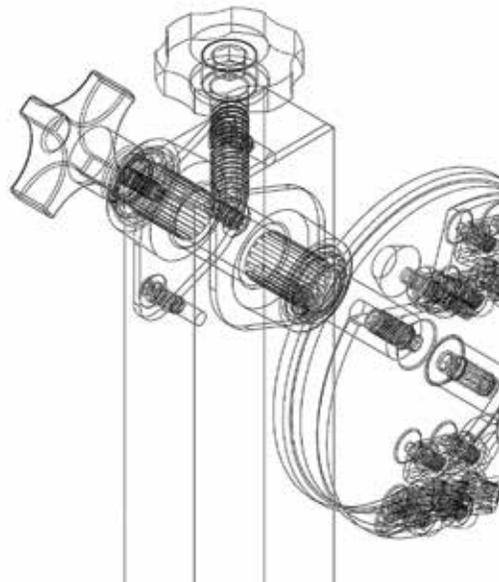
Manufacturing

OPTITEX™

VIRTEK™ LPS-7H LASER PROJECTOR

Inspection

PC-DMIS



MANUFACTURING & QUALITY ASSURANCE

At Quatro Composites, our manufacturing capabilities are as intelligent and efficient as our design and engineering.

It's all about The Power of Possibility – and how we support innovation.

MANUFACTURING CAPABILITIES

With over 80,000 square feet of manufacturing space and a nearly endless horizon outside of our windows, we have the ability to expand to meet our clients' production needs. Our customers benefit from our proprietary manufacturing processes, which allow us to develop accurate prototypes and move to production in a more timely and cost-effective manner. From concept to design to long-term manufacturing, we can take your parts from start to finish all under one roof.



Our advanced carbon fiber composite manufacturing capabilities include:

Autoclave Curing

Quatro has four certified autoclaves with state-of-the-art computer control over all process variables including heat up rate, dwell time, variable pressurization, controlled cooling and operational limits: 450° and 150 psi.

Compression Molding/Bladder Molding

Quatro has 15 presses that range from 1 cubic foot to 125 cubic foot capacity. We can heat our tools up to 350° F and apply precise temperature control during manufacturing using Labview. We can also provide pressure and temperature cure profiles at our customers' demand.

Pre Operations

Quatro engineers develop composite patterns using CAD tools and cut them using our EASTMAN™ cutters. The machines have the capacity to accurately cut various stacks of material at very high speeds. Rosenthal sheeters are also used to efficiently sheet the prepreg material.

Laser Projection Systems

Quatro has the state-of-the-art Virtek LPS-7H Laser projection system used to guide composite lay up operations in our Orange City, Iowa, facility. The new Virtek LPS-7H contains advanced projection and tracking technology that projects up to two times faster than previous laser models. Advanced laser and optical components offer high-quality projection patterns and a higher laser refresh rate that minimizes laser flickering. A centralized cooling channel provides thermal stability, enabling the projector to operate in the most challenging environments.

Post Operations

Our shops have three axis, four axis, five axis CNC machines, water jet cutters and lathes. We can design and machine aluminum, titanium, invar or any other material type tools, carbon parts and fixtures. Our machine bed volumes go from 40" x 40" x 30" up to 120" x 40" x 30."

Quatro can post bond composite structures using high temperature adhesives in precisely controlled furnaces. We can trim parts manually using custom designed trim fixtures or use our CNC machines to trim composite parts or assemblies with outstanding accuracies. We design custom bonding fixtures to precisely bond composite structures together and can perform X-ray scans to verify quality of the bonded joints. Additionally, we can perform X-ray scans to determine attenuation of composite parts for medical applications.

Clean Room Facilities

Quatro clean room facilities feature a 65' x 50' CLASS 400,000 with the temperature controlled from 67° to 77° and humidity range controlled from 30 percent to 60 percent. The room is rated with positive pressure with respect to adjoining rooms.

Paint Booth

Our 9' x 26' x 9' Col-Met semi-downdraft paint booth includes a heat and cure cycle to meet your finished requirements in a fast, reliable manner while maintaining our high quality standards.

Testing and Quality Control

Our team can design custom gauging fixtures, use romers, CNC machines, micrometers, precision calipers and other QC equipment to verify dimensions to within .0001". We have a full range of inspection and testing devices following ISO 9001:2000 and AS9100:2004 standards.

Large Scale Manufacturing

Our 80,000 sq. ft. facility in Iowa, which can be quickly expanded to accommodate larger projects, can handle large manufacturing volumes in tightly controlled temperature environments following strict certified manufacturing methods and with outstanding quality verification procedures.



QUALITY ASSURANCE

In the composite design and manufacturing industry, every component is critical. Quatro's quality assurance exceeds your expectations through successful design, development and production.

QUATRO'S QUALITY POLICY

Quality Meeting Expectations

Making all customer and regulatory requirements.

Unique and Innovative Customer Solutions

Understanding and meeting or exceeding customer needs through successful design, development and production projects.

Always Improving Processes

Maintaining a quality management system in compliance with AS9100, NADCAP and customer standards or regulations, including continuous improvement activities.

Timely Delivery

Rapid Response to Customers

One Team, Many Talents

100% of employees participate in quality system activities, which may include process and product improvement activities.

QUALITY CAPABILITIES

We have an extensive calibration program, with calibrated gauging that is used in production and inspection. Our CMM Faro Arm has a 4 foot arm, capable of measuring range up to an 8 foot diameter, with an accuracy of +/- 0.001"

Quatro's trained personnel have a quality-driven attitude and are dedicated to incoming inspection, in-process inspection and final inspection of all material and parts.

QUALITY ACCREDITATIONS

ISO 9001:2008 and AS9100:2009 Registered

Quatro received certificate of registration to Rev C in 2012.

NADCAP Approved

Quatro received NADCAP AC7118 Rev A-6 Accreditation for CP-Core Processing and PAR-Prepreg/Adhesive Bonding/Resin Film Infusion in 2009. The certification process requires stringent compliance to the highest industry standards for advanced composite parts fabrication for aerospace companies.

BAC5578 Approved

Quatro is one of the few composite companies in the United States to be BAC5578 certified. The certification defines the specifications and requirements for autoclave curing of advance composite structures.



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