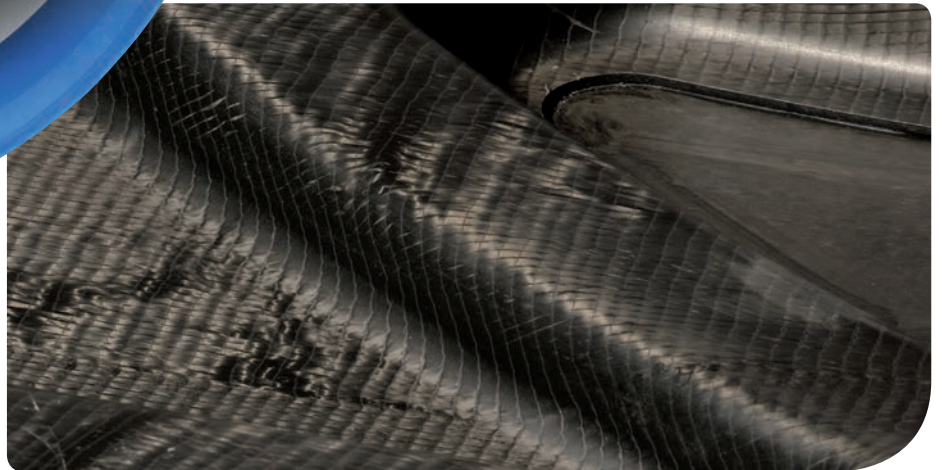
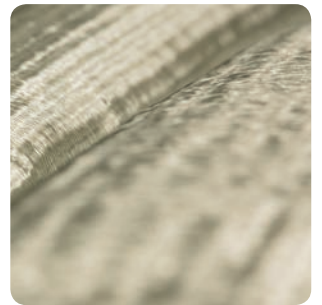
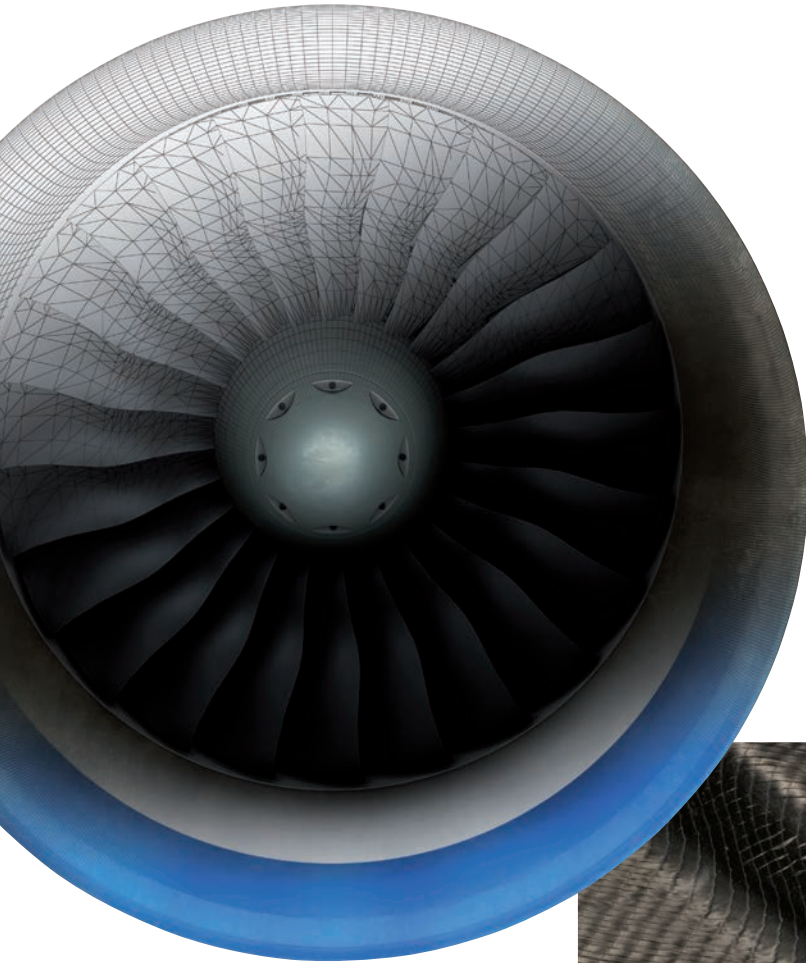


One-Stop Component Design,  
Process Development, Material  
Selection, Prototype and  
Manufacturing of Composites



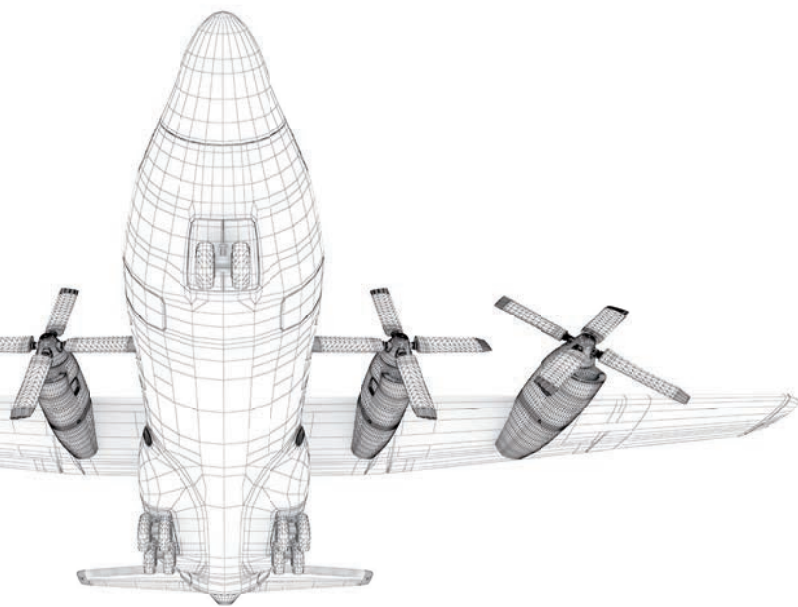
## Idea to Component, CCT Delivers

There's a big difference between having an idea in your head and a component in your hand. At Combined Composite Technologies (CCT), we have the resources and expertise to help you through the complex process of making the virtual, actual.

As a business unit of Hexion, the world's leading thermoset resin supplier, we command an uncommonly deep and current understanding of available raw materials and their potential to enhance processing and final results.

CCT complements Hexion's Transportation Research and Application Center (TRAC) in Germany, an advanced application development center where light weight structural composite solutions for the automotive, aerospace and mass transportation markets are developed and tested. Hexion's existing R&D centers worldwide provide CCT with new resins, products and solutions to enable cutting edge composites.

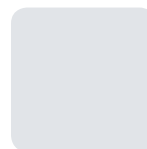
CCT is your one stop source, where you can benefit from our 55 years experience providing the highest quality composite tooling and components.



## In-House Design

## Deep Material and Process Expertise

## From Prototype to Series



# Facilities and Tools

Combined Composite Technologies (CCT) combines 55 years of experience serving the aerospace, automotive and defense industries with state-of-the-art design and manufacturing capabilities.

These include a 44,000 sq ft (4,100 m<sup>2</sup>) open plan manufacturing facility in Segensworth, UK. It features a fully upgraded clean room (BS5295 class J/USA 209E class M5.5), an ITAR cleanroom area, and 2,150 sq ft (200 m<sup>2</sup>) of laboratory space. It is ISO 9001:2008 AS9100 Rev.C certified as well as other customer specific aerospace and military approvals.

## Tooling Capabilities

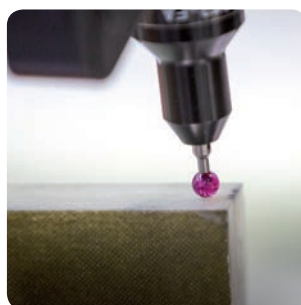
- Pattern making
- 5-axis CNC machining
- High and low temperature mold tools
- Router, drill and trim fixtures
- Ply cutting templates
- Autonomous tooling solutions
- Embedded telemetry solutions

## Processing Equipment

- 2 m x 6.5 m autoclave
- Multiple, microprocessor-controlled curing ovens
- Infusion / RTM tools and components
- 3 m x 6 m CMM
- State of the art metrology and quality assurance

## Design Capabilities

- Design, 2D and 3D solid modeling
- Metal-to-composite and pure composite design
- FEA material and model substantiation
- Confidential development
- Ability to work in multiple formats (IGES, STEP, VDA and CATIA)



# Capabilities and Services

CCT's expertise is developing unique tooling, prototypes and components for customers' complex, small-series production requirements, often to extremely tight tolerances of mere microns. To ensure the highest quality composite solutions, we bring together a broad range of material and process knowledge.

## Composite Training Facility and Demonstration Area

Hexion is dedicated to the enrichment of composite laminator skills and knowledge. CCT has a fully equipped training and demonstration facility on site to continually upgrade their employees skills. Training on composite laminating techniques, methods and materials is provided through experienced trainers and is also available to companies outside of Hexion.

## Fabric and Core Expertise

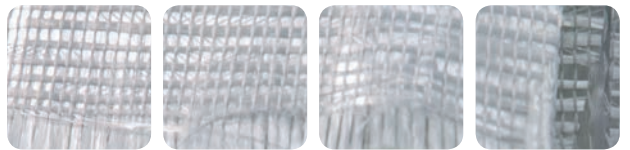
- Glass
- Carbon
- Aramid
- Dynema
- Hybrids
- Various core materials such as Nomex® or aluminum honeycomb
- Various types of foam and balsa

## Resin Technologies

- Phenolic
- Epoxy
- Polyester
- Vinyl ester

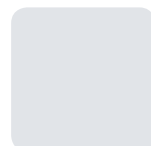
## Processing Techniques

- Pre-preg / pre-form
- High and low temperature vacuum infusion
- RTM and VARTM, including high-speed composite manufacturing solutions in partnership with Momentive's Transportation Research and Application Center (TRAC)
- Autoclave
- Traditional hand lay-up



Helping you make  
the virtual, actual.

From design and process development to tooling improvements and prototype production, CCT provides a customer driven approach to ensure your composite components are engineered to your needs.



# Hexion: Helping you make it in today's world.

Our global team produces the best in specialty chemicals and performance materials and provides the technical expertise to customize them to your exact needs. The result? Specific solutions, not generic products, leading to thousands of breakthroughs that improve bottom lines and enhance lives.

## Reach our Global Customer Service network at:

### U.S., Canada and Latin America

+1 888 443 9466 / +1 614 986 2497

E-mail: [4information@hexion.com](mailto:4information@hexion.com)

### Europe, Middle East, Africa and India

+800 836 43581 / +40 212 534 754

E-mail: [4information.eu@hexion.com](mailto:4information.eu@hexion.com)

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Please refer to the literature code HXN-648 when contacting us.



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