

ROUSH®

COMPOSITE ENGINEERING SERVICES

Roush Composite Engineering Services provides high performance engineering service for a variety of applications. Starting with innovative concept creations, Roush Engineering Services includes composite design, high-quality material selection, and complete composite analysis. Roush produces proven results by utilizing the extremely precise engineering and testing techniques. From concept creation to technical analysis, Roush's experienced technical staff is trained and ready to serve your engineering needs.

www.roush.com

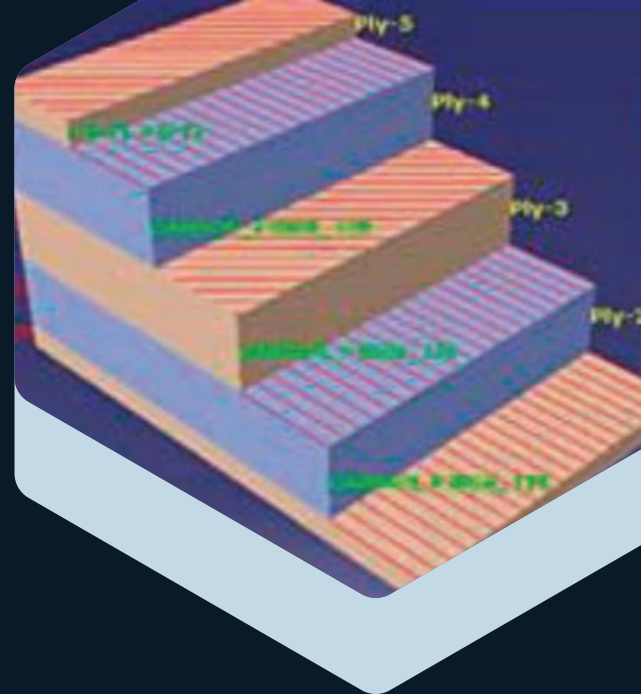
We're focused, we're efficient, and we're at our best when we're challenged to think outside the box — critical traits when our customers' success depends on how quickly we can take their visions from the sketchpad to the marketplace.

For more information, please [click here](#).



DESIGN OFFERINGS:

- Complete Composite Design
- Modification of Existing Design to Composites
- Focus on Continuous Fiber Unidirectional and Woven Composites
- Incorporation of Core Materials
- Design of Bonded Composite Monocoques



MATERIAL EVALUATION

- Laminate Schedule Design
- Engineered Laminate Databases
 - Tensile
 - Compression
 - Flexural
 - Fatigue
- Sandwich Construction Flexural
- Prediction of Laminate Properties Using LPT or CLT
- Laminate Mass Prediction

TOOLING SERVICES

- Tool Draw and Split, and Eggcrate Structure Design
- Metallic Tooling Design and Fabrication
- Steel, Aluminum, and Invar
- Composite Tooling Design and Fabrication
- Carbon/BMI, Carbon/Epoxy, Glass/Epoxy

MANUFACTURING CAPABILITIES

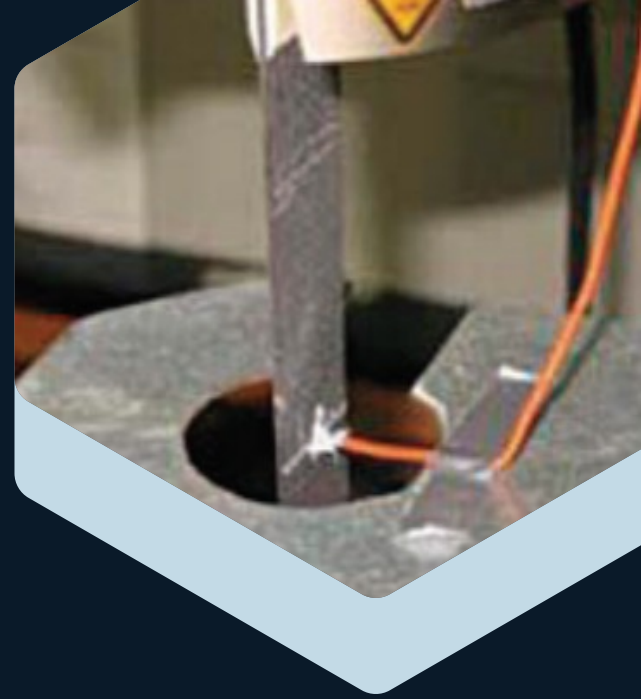
- Thermocoupled Autoclave and Oven Curing
- Heated Press Curing of Components, Laminates and Sandwich Panels
- VARTM Laminates

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TESTING & ANALYSIS

- Composite Laminate Mechanical Testing
- Structural Element Testing
- Full-Scale Composite Structure Testing
- Stress and Strain Prediction at Laminate, Lamina and Fiber-Matrix Levels
- Laminated Composite Structure FEA Analysis Using Abaqus CAE
- Bonded Joint Performance Analysis



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