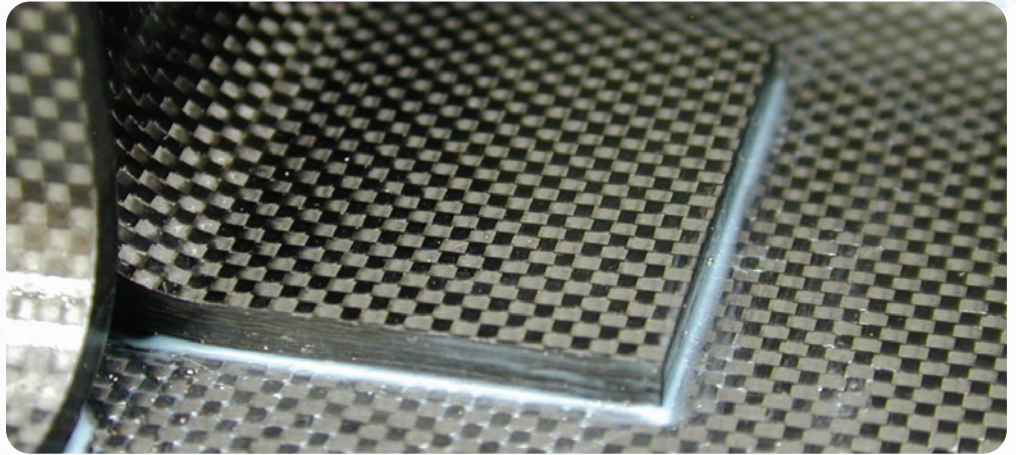


COMPOSITES

R&D and Small-Production Precision Composite Parts

Leveraging 50 years of sensor-design experience, the Composites Laboratory at SDL provides full life-cycle composite design and production services. Our highly-skilled team has experience creating a variety of composite structures and precision components for terrestrial, aerial, and space-based applications, using both pre-preg and wet layups.



SPECIFICATIONS

DESIGN CAPABILITIES

Engineering Analysis : Analyze and verify composite design and performance.

Three-Dimensional Modeling : Model and verify geometry prior to production.

TEST CAPABILITIES

Micrograph Imaging/Ply Verification : Verify fiber directions and layer alignment.

Vibration Testing : Verify robustness under cyclical loads such as those encountered during launch.

Cryogenic Testing : Verify robustness with extreme changes in temperature.

Acid Digestion Testing : Verify fiber to resin ratio.

MANUFACTURING CAPABILITIES

Pre-Preg Layup : Fabric is pre-impregnated with resin by the manufacturer. Required for space-rated composites.

Wet Layup : Resin system is applied to tooling with each layer of fabric.

Precision Machining Bonding : Adhere composites to other materials.

Painting/Coating : Apply protective/aesthetic coatings to parts.

Labeling : Apply identification numbers/labels to parts.

Part Documentation/Traceability : Verify materials and manufacturing procedures for parts and assemblies.

FACILITIES

Cutting and Layup Clean Tents : HEPA-filtered, forced-air ventilation, prevent contamination and inclusions.

Autoclave : Heat and compact parts during cure cycle.

Dimensions : 4 ft. X 16 ft. of usable space

Max Temperature : 400°F

Max Pressure : 100 PSIG

Vacuum : 380 mmHG

PAST PROJECTS

- UAV Airframe Components
- Structural and Precision Components for Satellite Applications
- Custom Shrouds for Terrestrial and Aerial Applications



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