



CASE STUDIES COMPOSITES GENIUS AT WORK

DEFENSE AND MILITARY APPLICATIONS

The material characteristics of composites are ideally suited to many military and defense products, and MFG has a strong record of successful partnership with government agencies such as DARPA as well as prime and sub contractors.

Product manufacturers in this market place high value on skills that are our key strengths: outside-the-box problem solving, weight reduction of parts, corrosion resistance, part consolidation, engineering support and prototyping. Another supplier selection criteria is often order flexibility - and the diversity and depth of our factory network makes it possible to deliver on that need as well. The sum of these attributes makes MFG a strong fit for this market.

By offering the full gamut of advanced materials and processes, we can support specific requirements for appearance, aerodynamics, durability and weight. Our involvement in other demanding industries – automotive, truck, electrical, space communications and wind energy - bolsters the value we bring to defense customers.

MFG is resourced and staffed to meet customer requirements in the areas of quality assurance, JIT delivery and project management. Rigorous program management during design, tool building, first article approval and production launch ensures synchronization with your delivery needs.

Military Vehicle MRAP Hood

- **Customer:** International Defense Prime Contractor
- **Process and material:** MFG developed a lightweight components made of a polymer called DCPD.
- **Special Genius:** Material conversion from metal design to a lightweight composite part capable of withstanding a 260lb soldier jumping from the roof onto the hood. The team designed-in “styled features” and defined the reinforcement shapes. The new design included a raised pattern as an anti-skid safety feature.
- **Customer satisfaction criteria:** Specialized solution delivered in a compressed timeframe.

War Fighter Safety Equipment

- **Description of the product:** Spider Shoes. Anti-ballistic liners (aka soles) for spider boots - part of the uniform for bomb disposal squads in mine fields around the world.
- **Customer:** International Defense Prime Contractor

- **Process and material:** Compression molded woven roving.
- **Customer satisfaction criteria:** On demand delivery

Kitchen Pods

- **Description of the product:** Kitchen Pods - complete kitchens made of 90% fiberglass – used by the US military in Desert Storm
- **Customer:** Defense Subcontractor
- **Special Genius:** MFG manufactured the entire pod - frame, walls, floor and ceiling. Insulated and weather-resistant, these units can be transported by rail and dropped in the field by helicopter. Turnkey and highly mobile foodservice facility.

We welcome the opportunity to discuss how MFG could be of service to you.

To learn more about our custom molding services, please contact one of the two composites experts below.

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