



CREATIVE
COMPOSITES
GROUP

Introducing Our Group Capabilities & FRP Product Lines



YOUR SINGLE SOURCE FOR INNOVATIVE ENGINEERED SOLUTIONS USING
FIBER REINFORCED POLYMER COMPOSITES

We Are The Driving Force Of Technical Innovation That Has Created The Most Advanced FRP Products

The Creative Composites Group provides customer-focused engineered solutions using Fiber Reinforced Polymer (FRP) composite materials that are lightweight, corrosion-resistant, and durable. With our innovative design and manufacturing expertise, we create products that make customer systems bigger, better, and longer lasting.

Here, we introduce the Creative Composites Group of companies to provide customers with a greater array of products, services, and capabilities to ensure the optimal solution for any project.

About Us

The Creative Composites Group consists of the U.S.-based composite companies within Hill and Smith Holdings PLC. Hill & Smith Holdings PLC is an international group with leading positions in the design, manufacturing, and supply of infrastructure products and galvanizing services. The Group's operations are organized into two main business segments: Infrastructure Products (Utilities & Roads) & Galvanizing Services.

Our History

The Group's genesis was in 2008 with Creative Pultrusions joining Hill and Smith. As Fiber Reinforced Polymer (FRP) composite technology continued to gain acceptance for a wide range of applications and markets, HS and CP pursued a growth strategy of complimentary manufacturing processes and products. In 2016, the E.T. Techtonics product line of fiberglass bridges was acquired. In the spring of 2017, Kenway Composites brought filament winding and hand layup processes. TowerTech joined later on in 2017 with its market leading cooling tower products that use pultruded structures. Then in 2018, Composite Advantage brought large part infusion molding to the group. These companies solidified the Group's position as the leading supplier of FRP composite products in many markets including bridges, waterfront, utilities, rail, corrosion, and standard structural profiles.



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By working together, Creative Composites Group can help you to create products and structures of any size or shape — for projects of any ambition or vision.

Composite Manufacturing Capabilities

The combined manufacturing capabilities of CCG encompasses the primary processes for fabricating high performing FRP composite structures. Whether requiring tight tolerances or big parts, the Group has the right manufacturing process to meet your requirements, including anything from 30 mils to 100 feet.

Being experts in all these processes enables CCG to select the process that delivers the optimum combination of cost, performance, and quality. CCG considers parameters including quantity, size, tolerance, and structural requirements to provide the best value.



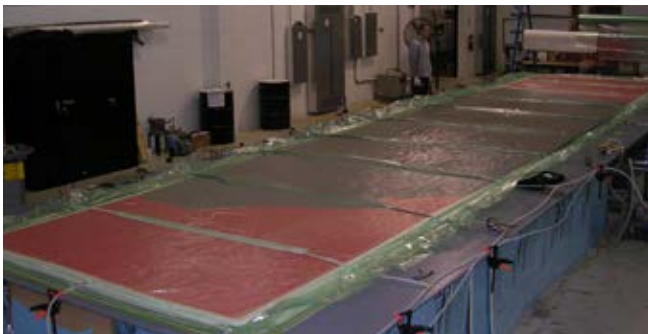
Pultrusion

Pultrusion creates long, consistent shapes like rods, bars, and beams for high quantity applications. Reinforcement fibers are pulled through a resin bath to saturate them, and then into a heated steel die that sculpts the composite into the final shape. The process operates continuously so it can be readily automated and it is adaptable to both simple and complex cross-sectional shapes.



Hand Lamination

Reinforcement fibers are placed in an open mold, resin is poured in, and the composite cures or hardens while exposed to the air. Tooling cost for open molds is often inexpensive, making this technique well-suited for prototype and low production quantities. This process easily incorporates gel coats as the cosmetic surface.



Vacuum Infusion

Vacuum infusion processing (VIP) uses atmospheric pressure to drive resin into dry fiber layers after the vacuum has pulled the bag down and compacted the fibers. This is the most economical process for large parts at low to medium quantities.



Filament Winding

Filament winding is an automated process that applies resin-saturated, continuous strands of fiber reinforcements over a rotating cylindrical mold. This process creates parts that can handle high operating pressures.

Bridges, Decking and Access Structures

FRP composite bridge products offer great benefits to owners and users. Corrosion resistance of FRP means long life and minimal maintenance. These are engineered solutions full of design features to exceed customer requirements. Lightweight means fast and lower cost installation. All products focus on safety with non-slip overlay appropriate for the traffic type.

Vehicle Bridge Decks

Only 20% the weight of concrete, lightweight decking is perfect for movable bridges and historic truss bridges. Decking handles full truck-trailer loads and includes a nonslip overlay resistant to snow plows.

Pedestrian Bridge Decks

This prefabricated decking is designed to meet any performance requirements, size, and shape. Design features include crown, cross-slope, non-slip overlay, curbs, drains, and railing attachments to reduce on-site construction costs. Shapes and aesthetics make for an attractive bridge.

Pedestrian Bridges & Boardwalks

Our product line of E.T. Techtonics fiberglass truss bridges are ideal for parks, trails, and industrial access. They are easy to install; either as prefabricated spans or from kits in remote sites. The bridges carry pedestrian, equestrian, and maintenance vehicles. Fiberglass boardwalks are stronger than wood or plastic and can be provided as individual planks or preassembled modules.

Cantilever Sidewalks

To meet the growing demand for bicycle and pedestrian traffic, the optimal solution is a lightweight sidewalk along vehicle and railroad bridges. This can be a new sidewalk or widening an existing walkway to accommodate all users.



Mass Transit

FRP composite rail platforms give transportation agencies a corrosion-resistant structure that can stand up to weather, de-icing chemicals, and high foot traffic at train stations. Large, lightweight panels can be installed quickly around train schedules, limiting the inconvenience to commuters. Prefabricated platform panels include features such as cross-slope, warning tactiles, non-slip overlay, curbs, drains, and railing attachments to reduce on-site construction costs.

Rail Platforms

Fiber Reinforced Polymer (FRP) composite rail platforms give transportation agencies a corrosion-resistant structure that can stand up to weather, de-icing chemicals, and high foot traffic at train stations. Lightweight panels can be installed quickly around train schedules, limiting the inconvenience to commuters.

Composite Stairs

Our stair system is fabricated using Fiberglass Reinforced Plastics (FRP) structural shapes and FRP molded and pultruded grating treads to create FRP stairways systems for company employees' safety and public pedestrian use. The stair system is designed with easy field installation in mind to reduce construction time and cost. Our advanced fabrication technique delivers the highest quality FRP stairway systems.

Overpass Walkways and Bridge Decking

For overhead access to both sides of the platform and nearby parking, FRP walkway bridges are fast to install. For rehabilitation of existing overpass bridges, FRP decking is safe and maintenance-free. Prefabricated panels minimize construction time over tracks.

Coverboards

Third rail coverboards and tie extensions are designed to protect personnel from the rail that is "live" or may contain stray currents. They are made of lightweight, high performance pultruded composites that will allow personnel and riders to exit safely in case of an emergency. FRP composite coverboards are custom designed and tested to meet the stringent requirements of the transit agencies.



Utilities

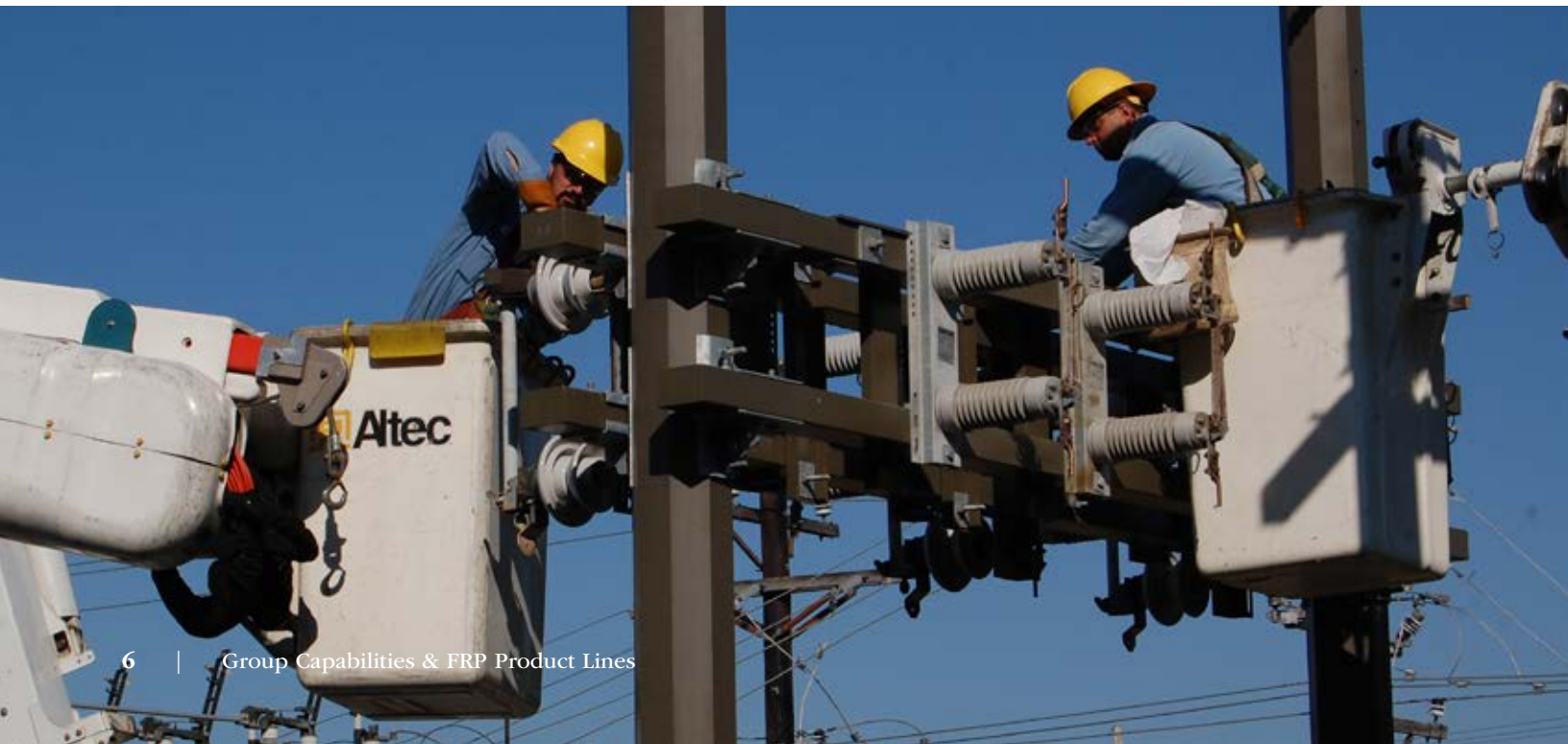
Most utility poles and crossarms are made from wood, steel, and concrete. For electrical and utility companies, the resiliency and maintenance of these types of poles and crossarms can be problematic. In addition to the high strength to weight ratio, our FRP poles and crossarms improve electrical insulation. FRP is especially suited to fire-prone areas and plays a vital role in storm hardening strategies where high winds demand resilience.

Utility Poles

Our Powertrusion fiberglass composite utility poles have been engineered to meet American National Standard Institute (ANSI) and National Electric Safety Code (NESC) code requirements. They will not rot, rust, spall, or succumb to termites or woodpeckers. They will not leach chemicals into the environment, nor do they contain chemicals or additives that could be detrimental to human contact. Composite poles are extremely resilient and have survived through hurricanes.

Crossarms

STORM STRONG™ FRP crossarms are RUS approved and have been engineered to meet the requirements of the National Electric Safety Code (NESC) and to increase grid reliability. Our advanced ultraviolet light protection system exceeds the American Architectural Manufacturers Association (AAMA) 623 requirements. Lighter and stronger than wood, these are the most cost-effective and structurally efficient crossarms available.



Waterfront Infrastructure

Waterfront infrastructure projects present a unique and challenging set of demands. Marine fixtures are constantly exposed to saltwater, whether or not they are submerged, along with UV sunlight, changing weather conditions, and even corrosive chemicals. Lightweight, strong, and flexible, FRP structures are emerging as the preferred technology to replace deteriorating wood, concrete, and steel structures.

Pipe Piles

Fender systems protect critical waterway infrastructure like bridge pier and electric towers from damage. Guide walls safely bring ferries into terminals. Docks and piers must withstand severe weather. All these applications benefit from the use of high strength, FRP hollow pipe piles. Design flexibility makes these systems cost effective upfront as well as long lasting. FiberPILE and SUPERPILE are among the most sturdy and durable piling materials on the market.

Sheet Piles

SuperLoc piles protect shoreline from erosion and extreme weather. These sheet piles offer high strength to weight ratio, corrosion resistance, maintenance-free operation, and product versatility compared to wood, vinyl, concrete, or steel alternatives.

Camels and Separators

Camels and separators comprise a diverse set of floating structures that allow safe berths for vessels as they approach a docking site. Virtually any camel or separator can be made more durable with the use of FRP composites. Applications include separators for ports and log camels and piers handle small vessels to cargo ships. Able to meet extreme requirements, we supply camels for submarines and aircraft carriers for the U.S. Navy.

Specialty Applications

FRP may be used in any number of specialty applications. These include trench covers for piers, floating pump-out stations, and dam structures for controlling water levels in rivers. Customers value the long life and minimal maintenance.



Industrial Corrosion

FRP is the standard material choice for any industry using strong chemicals. The equipment we produce excel in these environments with longevity and ease of maintenance. Applications include chemical storage tanks, process tanks, stock towers, pipes, ducts, and covers. A key value is our field services for new product installation as well as maintenance and repair of existing equipment.



OEM and Custom Products

These “best in class” pultruded profiles are often the enabling technology that makes our customers’ systems special. These can be custom applications using special materials like carbon or polyurethane, or long term production for OEM customers. We provide turnkey solutions, taking products from concept to design, to tooling manufacturing, to production. This includes a lifetime tooling guarantee that is unique to the industry.



Standard Structural Products

This is an extensive array of pultruded fiberglass reinforced structural shapes such as angles, channels, rods, tubes, plates and beams sold under the Pultex and SuperStructurals brand names. A comprehensive design manual and CAD files allow customers to easily incorporate these shapes in their structures.



Tower Tech Cooling Towers

Tower Tech supplies the world's most efficient cooling tower. It is the leading manufacturer of products that effectively bridge the gap between sustainability and energy efficiency. Tower Tech offers the highest quality products with patented technology providing innovative solutions. Check them out at www.towertechusa.com.



Services

The Creative Composites Group's comprehensive menu of services takes you from design/build, manufacturing processes, and structural fabrication to field support for tasks such as lamination repair or equipment installation. We want our innovative fiber reinforced polymer (FRP) solutions to make your projects and ideas successful.

Field Services

Manufacturing complex FRP parts and structures in a factory takes smart thinking and good personnel, but shops are set up for success. Being in the field where the finished product is in use makes for a far more challenging environment to work in. Specialty tools that make life easier in the shop are not usually on hand at a work site. This is where our fabricators become innovators. Our technicians have the skills to do complicated jobs in settings such as limited space or time and limited protection from environmental factors.

Our Field Services team supports our FRP manufacturing capabilities with a full variety of field services for the Northeast and mid-Atlantic regions of the United States. Most of these services support equipment and facilities in industries using corrosive chemicals. The services include installation of new equipment and rehabilitation of worn or damaged equipment. These services range from mobilizing a two-person crew for a weekend emergency repair to managing a thirty-five (35) person maintenance outage with a range of installations, linings, and repairs.



Fabricated Structures

Our structural fabrication services provide the broadest range of products and services in the industry offering Custom Designed FRP Platforms, Handrail Systems, Stairs, Ladders, and Cage Systems, Molded Grating, Pultruded Grating, and unique one-off fiberglass fabrication designs.

Starting with the customer's vision for the structure and the performance requirements, our design team selects from our high-quality structural profiles to create a cost-effective fiberglass structure. We welcome complex structural fabrication challenges where our innovation and decades of expertise provides the right solution.

We have a range of shapes and polymer resins to meet your structural fiberglass fabrication needs. If the best solution goes beyond a structure fabricated from standard fiberglass shapes, the Creative Composites Group has expertise in the primary composite manufacturing process, and we can design and build that custom molded product.

Design & Build Services

With our engineering expertise and our industry-leading composite manufacturing processes, our design & build services deliver turnkey solutions to maximize the value of customer products and systems. These can be specialized items for long term production as well as "one-off" individually molded parts. We provide services from the design phase, through the manufacturing phase, to the final on-site installation at the customer's facility.

Our customers excel in their products and systems but don't need to be experts at FRP composites to put this material to work for them. With over 50 years of delivering leading FRP products, the Creative Composites Group's innovative designs and manufacturing processes provide that expertise as part of the team working for our customers.

Partner With Creative Composites Group

Your Single Source for Innovative Engineered Solutions Using Fiber Reinforced Polymer Composites

Advance your products and projects beyond the limitations of traditional concrete, steel, and wood by leveraging the combined strength of Creative Composites Group.

We are the driving force of technical innovation that has created the industry's most advanced engineered FRP. Our team of industry leaders includes:

- Creative Pultrusions
- E.T. Techtonics
- Tower Tech
- Composite Advantage
- Kenway Composites

As Creative Composites Group, we can help you to create products and structures of any size or shape — for projects of any ambition or vision.

Other companies commoditize FRP in off-the-shelf shapes and forms; Creative Composites Group does not. We are the single source for the broadest range of engineered FRP solutions to build your ideal projects. That's possible only with our proven engineering processes and end-to-end collaboration, service and support resources.

Discover Your Custom Engineered FRP Provider

We're much more than a construction material supplier. Creative Composites Group is committed to becoming a trusted business partner who is keenly interested in your project's success.

Creative Composites Group works alongside your team, from facility owners to design engineers to contractors, to help you develop the most economical FRP solution that meets the most demanding structural requirements and environmental conditions.

*Have a project that you think engineered FRP is right for? Call us.
We'd be thrilled to discuss it with you.*

Contact Our Composites Specialists

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