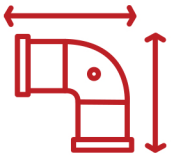


# Don't let a pipe failure shut you down

## Composite Reinforcement Solutions for Circulating Water Lines



### Fully Customized Solutions

Hot water, saltwater, high hydrogen sulfide levels, aggressive microbially induced corrosion, and/or corrosive additives pose a threat to the availability of your circulating water lines. We will work with you to diagnose your problem and prescribe a custom-designed solution to meet the exact needs of your system.



### Repair Active Leaks and Through Wall Failures

Our composite pipe repairs can often be performed while your pipe is online or full of water, including pipes with active leaks. Have our team of composite repair experts design a customized repair process for you.



### 50-Year Life Extension. Maintenance Free.

Our fully structural composite carbon fiber system provides a 50-year life extension for your circulating water lines, even with continued internal corrosion or through-wall failures on the host pipe.



### Training and Installation Made Easy

We offer comprehensive training programs for your plant maintenance team or local maintenance contractor. Ensure the quality and longevity of your repairs without the expense of mobilizing an expert application team.

# Build a Structurally Independent, Carbon Fiber Pipe Around your Existing Water Lines

**Are you having issues with corrosion in your circulating water lines?** Our customized carbon fiber solutions are compatible with circulating water lines made from carbon steel, cast iron, ductile iron, fiberglass, and prestressed concrete cylinder piping. We offer spot repairs for isolated degradation, reinforcement of the existing pipe for systemic corrosion, or a completely structurally independent composite pipe for severe degradation and/or structural damage.

## Installation Spotlight



**Before:** A New York power generation facility was experiencing systemic corrosion in their circulating water lines. A section of 30-inch diameter, carbon steel pipe was experiencing internal and external corrosion and required immediate attention. Instead of pipe replacement, a composite pipe repair was chosen to provide a 50-year life extension.



**During:** Advanced FRP Systems designed a structurally independent carbon fiber composite pipe with a flange-to-flange wrap design, to completely rebuild this section of piping. The external application of the composite allowed the repair to be done without draining the circulating water line, minimizing the required downtime for the repair.



**After:** The carbon fiber pipe repair system was installed on-time and on-budget during a busy plant outage. The system is engineered to withstand more than double the design pressure of the original circulating water line. This composite pipe repair will provide a 50-year, maintenance-free service life, even in aggressive saltwater immersion conditions.