

COMPOSITE SITE

Fluid Transfer LLC

CFT As A Company

Composite Fluid Transfer (CFT) was established in May of 2011 to pursue a solution for industries related to fluid transfer via piping systems. The mission of our venture based in Kilgore, TX is to penetrate existing markets with a superior alternative to both the leak free fluid transfer systems and the conventional, temporary fresh water transfer systems. The initial goal of CFT was to create the largest inside diameter pipe with a working pressure rating of 250 psi while being light enough that a single 30' joint could easily be carried by two people.

The FiberFlex-11® pipe at 4.26 lbs. /ft. is over half the weight of comparable diameter and pressure rated composite and plastic pipe (8.5 – 21.5 lbs. /ft.)

The standard length of the FiberFlex-11® pipe is 30 feet. The pipe was specifically designed to be as light weight as possible and to be less than the maximum 140 lbs. that OSHA mandates as the maximum weight for two persons to lift. A 30 ft. section of FiberFlex-11® weighs only 128 lbs. comparable 30 ft. section of 12" HDPE SDR 9 weighs 655 lbs.

The light weight pipe enables large cost savings in mobility, installation, and safety costs. The fact that the FiberFlex-11® pipe is designed so that two men in the field can easily lift and carry the pipe avoids the high cost of using large and expensive unloading equipment. Avoiding heavy equipment and using a much lighter product increases safety and minimizes work site reclamation damage costs.

Developing the FiberFlex-11® pipe began with proving the concept that winding a thin walled HDPE liner with composite fiberglass tape would produce a lightweight, large diameter fluid transfer system capable of withstanding high pressures. It also needed to be capable of withstanding the rigors of the oilfield water transfer industry and others.

Hundreds of hours of ASTM standard burst and cycle testing proved the pressure rating while showing the resilience of the product. Apart from the statistical advantages of this leak-free system, several field tests proved the many real world advantages of FiberFlex-11® pipe. Its seamless integration into an

existing water transfer company's infrastructure is a major advantage saving time and money.

Other leak-free systems may require additional costly specialized equipment where FiberFlex-11® can be utilized with any existing water transfer equipment. Existing aluminum pipe trailers and water transfer equipment can be used to transport FiberFlex-11® without the additional expense of extra trailers, tuggers and spooling equipment. This also means lead times for implementing your equipment are lower, repair costs are lower, and employee training is simpler if not already there.

From the humble beginnings of wrapping HDPE liner by hand to the design and construction of its full scale manufacturing process, FiberFlex-11® spent its time in the R&D trenches and has developed into an industry revolutionizing product.

CFT's FiberFlex-11® pipe was specifically designed for the sizeable water management market in the oil and gas industry, yet it can be applied to any large diameter fluid transfer market. A key strength of this innovation is the adaptability of the product to market demands, including any fluid transfer markets outside of the oil and gas industry. The FiberFlex-11® system can easily be altered to operate at higher pressures, in tougher environments, with larger diameters or any type of connections. Even though FiberFlex-11® pipe has been fully implemented, this innovation's concept can continuously evolve.

FiberFlex-11 Technology

The FiberFlex-11® pipe is a thin wall, large diameter HDPE pipe liner wound and heat consolidated with a high modulus, fiberglass reinforced composite tape. The innovative FiberFlex-11® pipe is a concept that is designed, and manufactured by Composite Fluid Transfer LLC, Kilgore, TX.

FiberFlex-11® pipe is a 10.5" ID, 11.1" OD rated at 250 psi (500 psi burst). The composite pipe incorporates Ticona's CFR-TP® Continuous Fiberglass Reinforced HDPE thermoplastic composite tape. The CFR-TP is wound around and heat consolidated by CFT's proprietary process on to a specially

FiberFlex-11, leading the fluid transfer industry

design, extruded thin wall HDPE thermoplastic liner.

The tape winding / consolidation process is proprietary process developed by Composite Fluid Transfer LLC. By consolidating several layers of Ticona's CFR-TP tape on to the thin wall HDPE pipe, the burst pressure is increased from a mere 50 psi to over 500 psi.

The finishing touch to the pipe construction is an outside layer of Valeron's 20 mil HDPE film. The film acts as the protective abrasion and UV resistant film. The film is typically a tan color to reduce the heat conduction and to blend in naturally to the surroundings. Other colors are available if desired to individually dress up the oil well operation.

To enable the pipe service in various market applications, a whole line of connectors, couplings, and valves have been designed to provide the ultimate flexibility in end-use applications.



FiberFlex-11 Quick Connect Coupling



FiberFlex-11 Installation In Texas