



A division of



At a glance

Who we are

Leader in the design, engineering and manufacturing of composites.

What we do

Pultrusion technique's daily activities include designing and providing outstanding solutions in composite engineering, down to the last detail.

What we Offer

Our products are praised for their outstanding properties in terms of quality, performance, strength, durability and superior price-quality ratio.

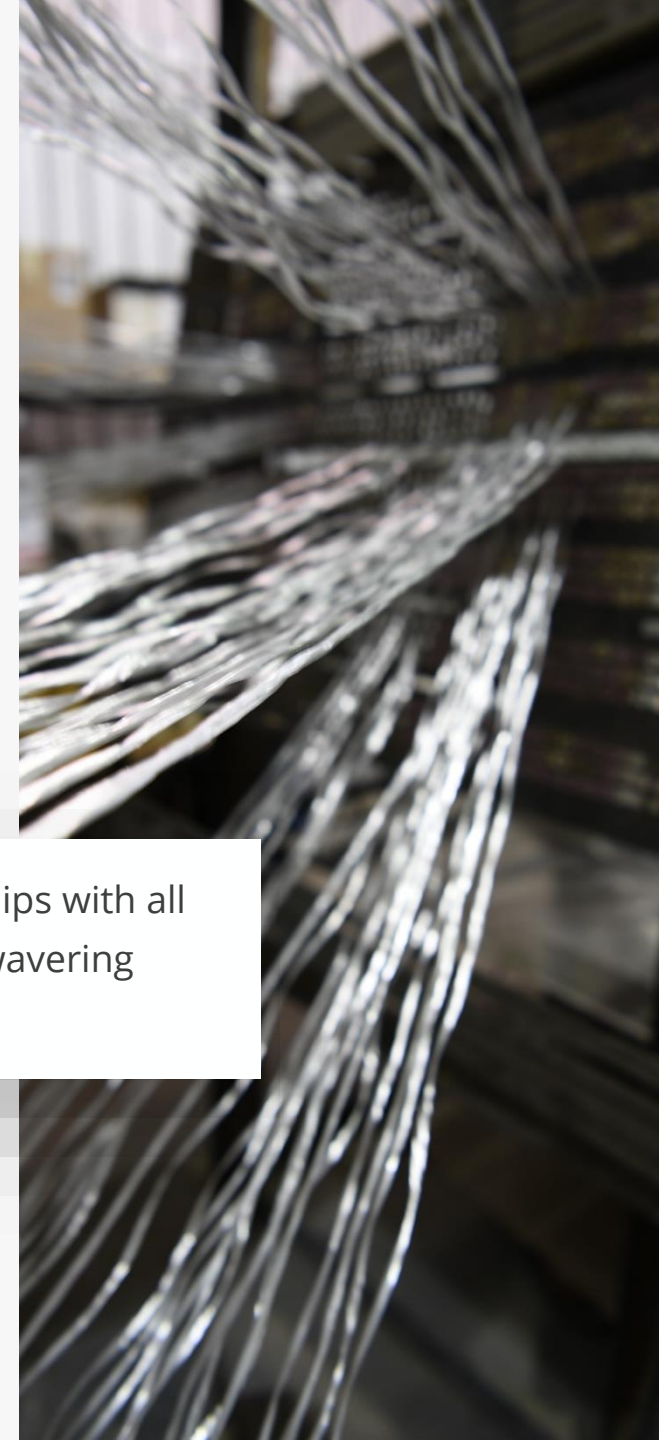
Where we are Going

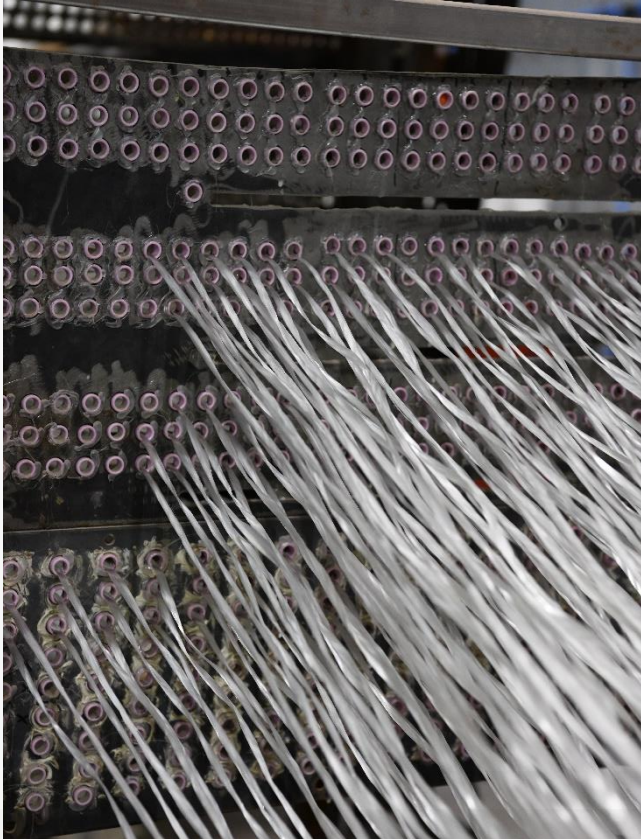
At Pultrusion technique, research and development of new applications and industrial processes are an integral part of its commercial strategy, and underline all of our normal daily operations.

Who we are

FIBER Straps is a division of [Pultrusion technique inc.](#), We design and manufacture hold-down straps to increase the retention of underground storage systems. Our products are used by major underground storage tank manufacturers. Our high-quality cost-effective product is engineered for easy install and is manufactured under strict quality standards in order to fully comply with client's specifications.

We strive for excellence in everything we do, Our positive and constructive relationships with all our employees and partners are based on mutual trust and respect. We have an unwavering commitment to staying true to our entrepreneurial culture and our values.





About us

Pioneer in the industry since 1966, [Pultrusion technique](#) is a major player in the development of fiber-reinforced polymer (FRP) composites. Our products are protected by numerous patents, and some exceed international standards. They are the most efficient, robust, resistant, durable and cost-efficient in the market, and serve diverse industries (mining, petroleum, transportation, construction and electricity).

Our success is based on more than 50 years of ongoing R&D and improvement of industrial processes.

Our know-how is continually sought after to meet the most sophisticated needs of each and every one of our clients, while increasing productivity, efficiency, reliability, safety and profitability of their business.

OUR EXPERTISE

Composites are one of the most widely used materials and serve a great many industries worldwide. Among their numerous qualities, they are especially valued for their adaptability which allows us to create and manufacture composite solutions tailored to every client's particular needs. Our research and development expertise provides us the appropriate flexibility to fully respond to our ambitious objectives, supported by cutting-edge technologies.



Pultrusion

Pultrusion is a continuous process for manufacturing composite materials with constant cross-section. Reinforcing fibers are pulled through a resin, and into a heated die, where the resin undergoes polymerization.



3D CAD and FEA

Our 3D CAD software allows us to generate superior custom designs more quickly and explore creative possibilities for new and existing products.



Composite-to-metal bonding

Our method of bonding a composite profile to a metal structure is versatile, economical, tailored to our clients' needs and has one of the highest performance in the world.

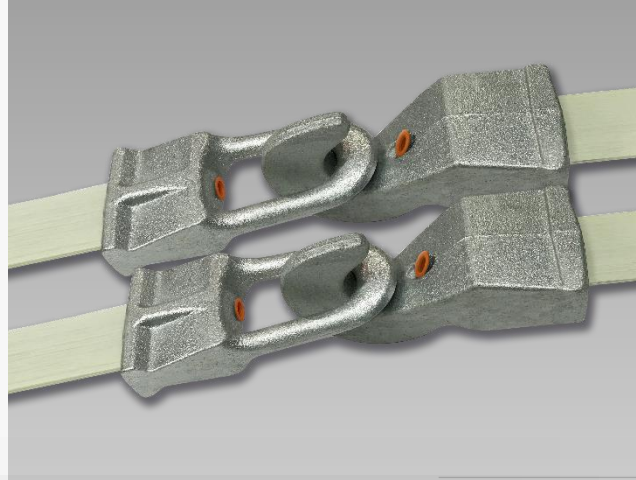


Compression molding

Our method allows us to mold complex high-strength fiberglass reinforcements that are resistant to severe corrosive environmental conditions.

Our Hold-down- straps

Our hold-down straps are designed to increase the retention of underground storage systems and are **used by major underground storage tank providers**. This high-quality cost-effective product is engineered for easy install and manufactured under strict quality standards in order to fully comply with client specifications.



Adaptable to your underground storage tank systems

Our straps adapt to all types of tanks and situations. No matter the size of the tank, the type of environment or whether the tank is installed in a trench with open or tight walls, our straps will increase the retention of your underground storage tank systems.



LEADING THE UNDERGROUND STORAGE TANK INDUSTRY



Epoxy Composite-to-metal bonding


We use an exceptional composite-to-metal bonding technique that ensures a long-lasting corrosion-resistant anchoring system capable of sustaining extensive tensile loads, i.e. 25,000 lbs (155,500 N) with only 2% elongation at breaking point.

BARS


Our bars are well known for their quality and reliability. In fact, 70% to 75% of the weight of the strap is high quality fiberglass roving.

- ✓ Guaranteed to sustain extensive tensile loads of 25,000 lbs
- ✓ High resistance to acid corrosion
- ✓ E lasticity module = 5 . 5 X 10⁶ psi
- ✓ Stronger and more rigid than polyester





Countless possibilities and innovative profiles created by complex geometries



Profiles with superior mechanical properties, very accurate fiber orientation and a high rate of reinforcement

PROPERTY	Test procedures	Unit	Fiberglass - weight Roving only		Profile - 45% weight Mat and Roving	
			70% - 75%	65% - 70%	Longitudinal	Transverse
Density	ASTM D792	LBS/IN ³	0,073	0,072	0,064	-----
Tensile strength	ASTM D638	PSI X 10 ³	120	100	45	9
Tensile modulus	ASTM D638	PSI X 10 ⁶	6,5	6	2,5	1
Flexural strength	ASTM D790	PSI X 10 ³	120	100	45	15
Flexural modulus	ASTM D790	PSI X 10 ⁶	6,5	6	1,8	0,8
Compressive strength	ASTM D695	PSI X 10 ³	80	70	30	15
Compressive modulus	-----	PSI X 10 ⁶	2,5	2,3	2,5	1
Shear strength	-----	PSI	3000	2800	5,5	5,5
Thermal conductivity	ASTM E1225	BTU/FT ² /H/°F/IN	2,1	2,1	2	-----
Volume resistivity	ASTM D257	OHMS/CM X 10 ¹⁴	2,5	-----	-----	-----

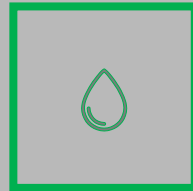
Our Anchoring System

Top quality components

- ✓ Hot-dipped galvanized cast iron hooks / Class 2 MIL Spec. QQ-Z-325B
- ✓ 70% Ductile Iron Casting ASTM A536-84 Grade 80-55-06



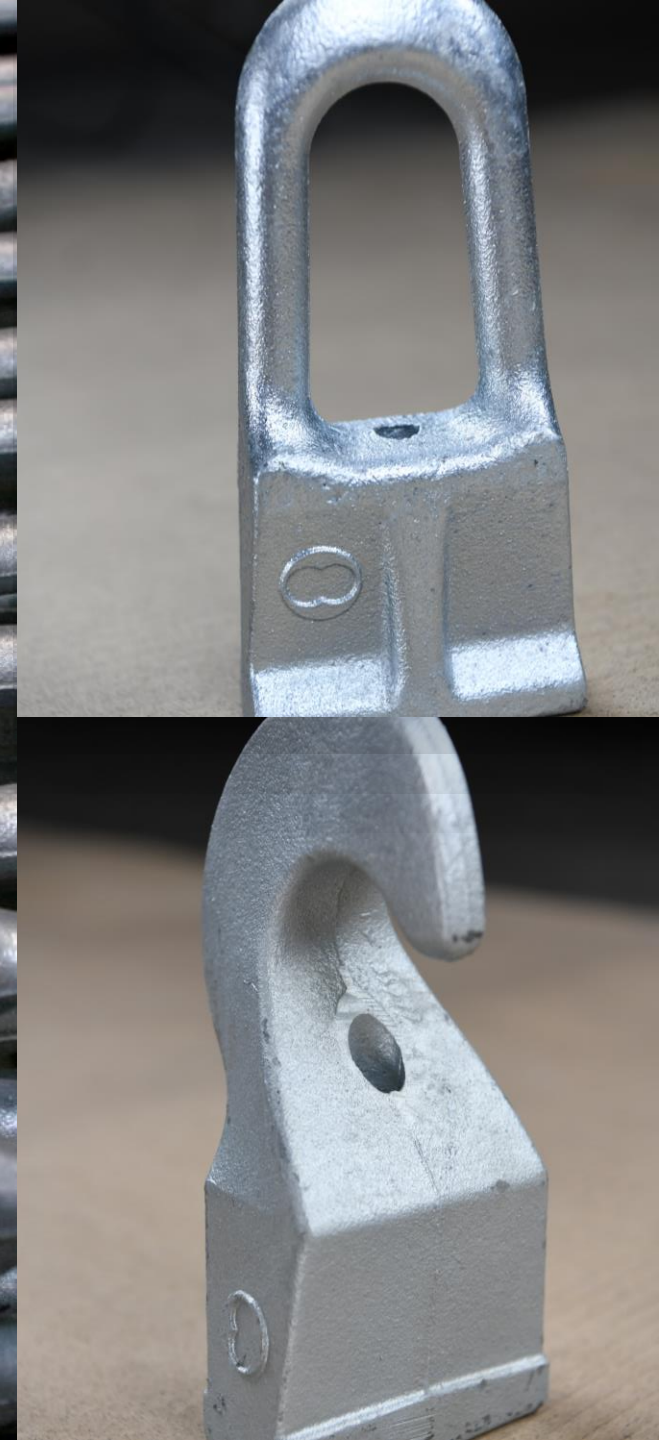
exceptional
composite-to-
metal bonding
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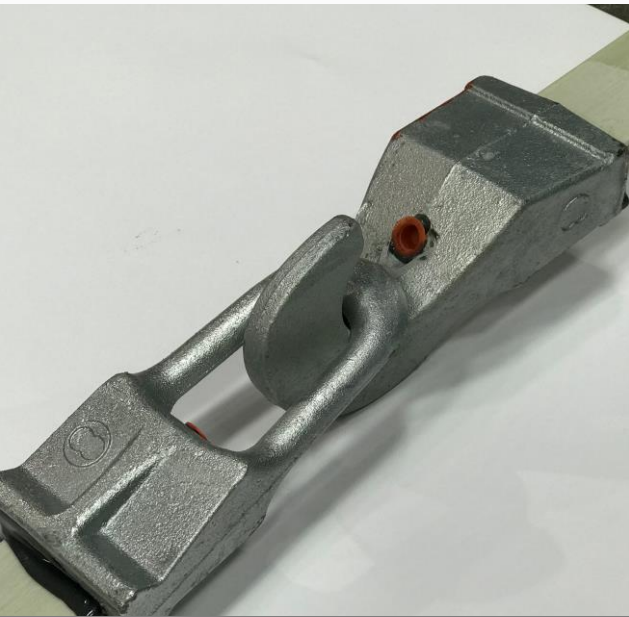




1: D & D Hooks



2: C & C Hooks



3: C & D Hooks

For small or large tanks

Choosing the Right Combination



- 01 One full-length strap per perimeter with 2 turn-buckles for anchoring on concrete base, on each side of tank
- 02 2 short lengths per perimeter anchored directly on concrete base with 1 fastening system on top of tank
- 03 One full-length strap per perimeter with one C-Hook anchoring directly on concrete base and 1 turnbuckle for anchoring on concrete base on the other side

Quality Control

Quality assurance is crucial to us, as our products must be effectively, impeccable and to exact specifications.

We have a list of all critical steps involved in the manufacturing process to prevent any breach throughout production, and every employee understands our quality definitions and how they must make certain our standards are met.

We review our processes and standards regularly to optimize the quality of our products, and implement same upon acquiring new equipment, and putting forward new technologies and production methods.

Physical and mechanical tests are carried throughout the process to ensure the quality assurance processes have been followed, and to measure the achievement of specific standards.

- 01 Visual Inspection
- 02 Dimensional Inspections & Stability
- 03 Durability Tests
- 04 Mechanical Measurements
- 05 Destructive Testing



Each strap subjected individually to a quality control **load test of 25,000 lbs.**

Epoxy glued

Specific testing protocols prior to and during epoxy injection - and after curing.



Our Packaging

Fast and efficient delivery service

Our packaging system provides for **easy and safer loading, unloading and on-site handling**. Orders are shipped in wood casings custom-built platforms, for small or large orders.

Straps are rolled to form a loop of minimum radius of 30" to prevent damages.



Heavy-duty platforms

Custom-built heavy-duty platforms, including a steel structure for hooks or /rings to hold straps in place.



Safe handling

Platforms are designed for **easy loading and unloading** onto vans or flatbeds and allow for safe on-site handling.



***Platforms
designed for your
convenience***

Meet the Team

Core values

Our **positive and constructive relationships** with all our employees and partners are based on mutual trust and respect. We have an unwavering commitment to staying true to our entrepreneurial culture and our values.

- We strive for excellence in everything we do, as well as in our relations with clients, suppliers and colleagues;
- We work as a team, cooperate closely and acknowledge everyone's contribution; and
- We encourage and value innovative ideas to maintain our high standard of excellence



Robert P. Dufresne, Ing.
President



Xavier Dufresne, MBA.
Vice-President



Hamid Arabzadeh, Phd.
Engineer



FIBER Straps

A division of
Pultrusion technique inc.

Thank You!