



PULTRUSION Technique

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AT A GLANCE

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.

Who we are

Leader in the design, engineering and manufacturing of composites, our success is based on more than 50 years of ongoing R&D and improvement of industrial processes.

What we do

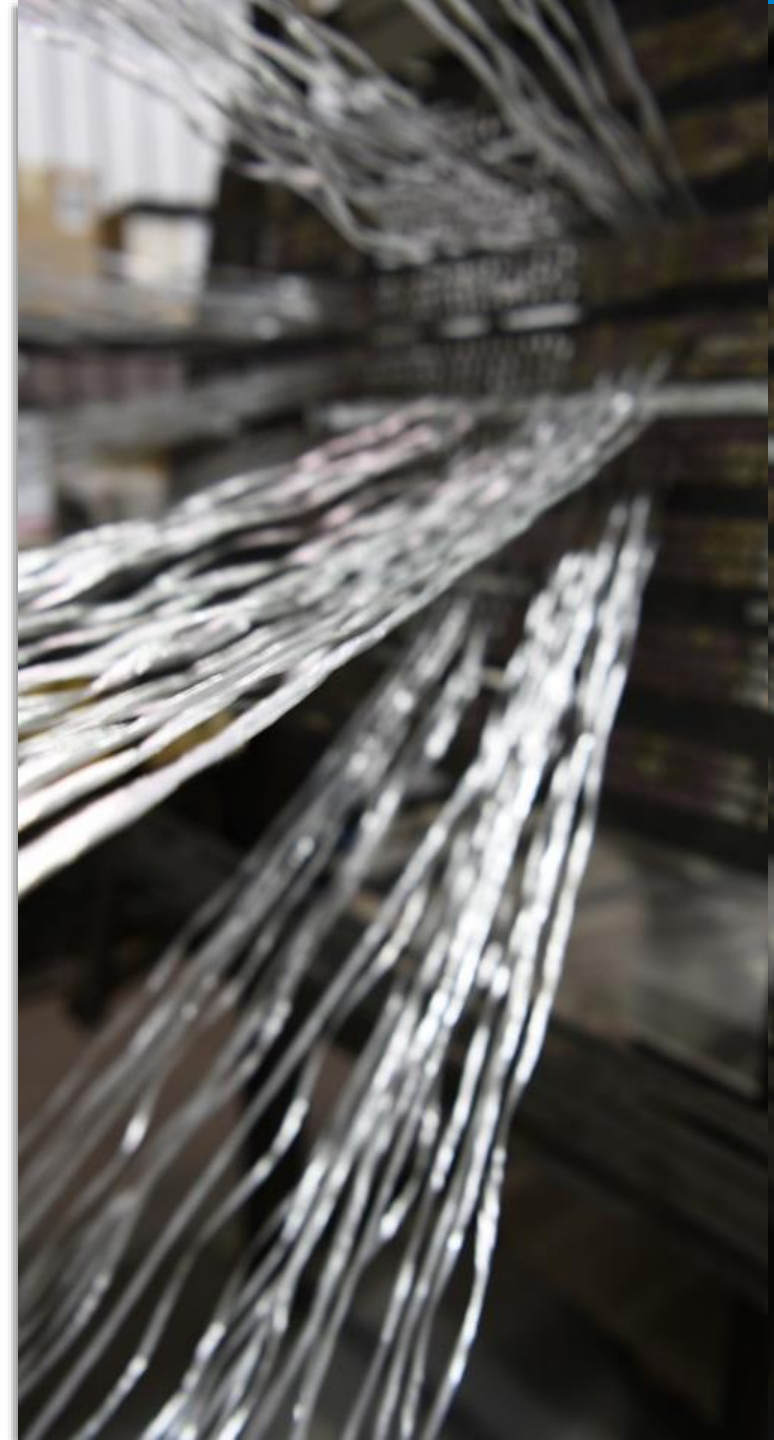
This is Pultrusion technique's daily activities include designing and providing outstanding solutions in composite engineering, down to the last detail.

What we offer

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

Where are we going

Research and development of new applications and industrial processes are an integral part of our commercial strategy, and underline all of our normal daily operations



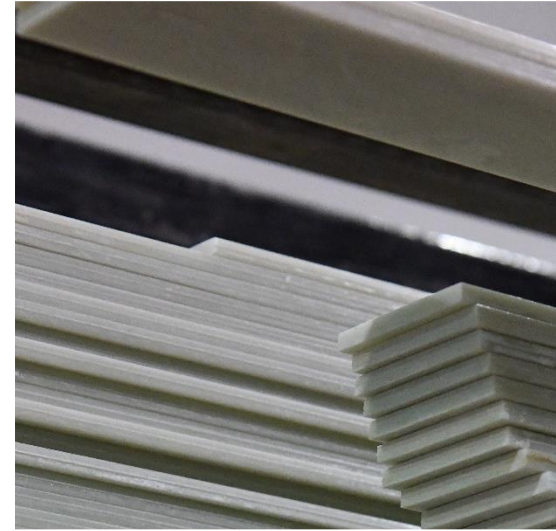
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Introduction

ABOUT US

Pioneer in the industry since 1966, **Pultrusion technique inc.** 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 high-quality cost-effective product is engineered, and manufactured under strict quality standards in order to fully comply with client's specifications.



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 and tailored to our clients' needs.



Compression molding

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

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Our Works

Our products

We serve a variety of economic sectors where composite materials continue to offer innovative alternatives to current technical needs. We are able to design and manufacture a customized solution that will meet your needs, regardless of the industry, be it architecture, infrastructure, pulp and paper, etc.

Composites have a low coefficient of expansion, low thermal conductivity and require little maintenance. They are lightweight, long-lasting and offer high resistance to corrosion and weatherability. Their **dimensional stability**, flexural, dielectric and tensile strengths, and high strength-to-weight ratio make them **better than aluminum, vinyl, wood or steel**.

BARS



RODS



BRACKET BARS



CUSTOM PROFILES



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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
- ✓ Elasticity module = $5 \cdot 5 \times 10^6$ psi
- ✓ Stronger and more rigid than polyester
- ✓ Can be used as a straps; please follow this link for more details:
<https://fiberstraps.com/fr/>

Standard dimensions



Height	Width
1/8"	1/2"
1/4"	1/2"
3/8"	1/2"
3/16"	2"



Countless possibilities and innovative profiles created by complex geometries



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



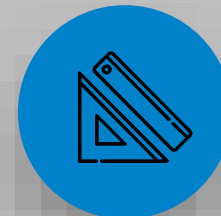
Rods

Outstanding performance

Experience, technology, design and resin matrices are what set us apart. We manufacture products with very accurate dimensional tolerances, high strength-to-weight ratio, improved transverse and shock resistance, and superior mechanical properties.

Our manufacturing processes are among the best. We use high quality reinforcing fibers, structural adhesives and resins, which make polymerization highly effective and ecologically aware, and meet the most demanding chemical, flame retardant, electrical and environmental conditions.

Standard dimensions



Diameter

1/4"

3/8"

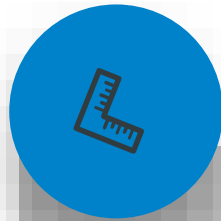
1/2"

3/4"

Mid-span bracket bars

For power lines

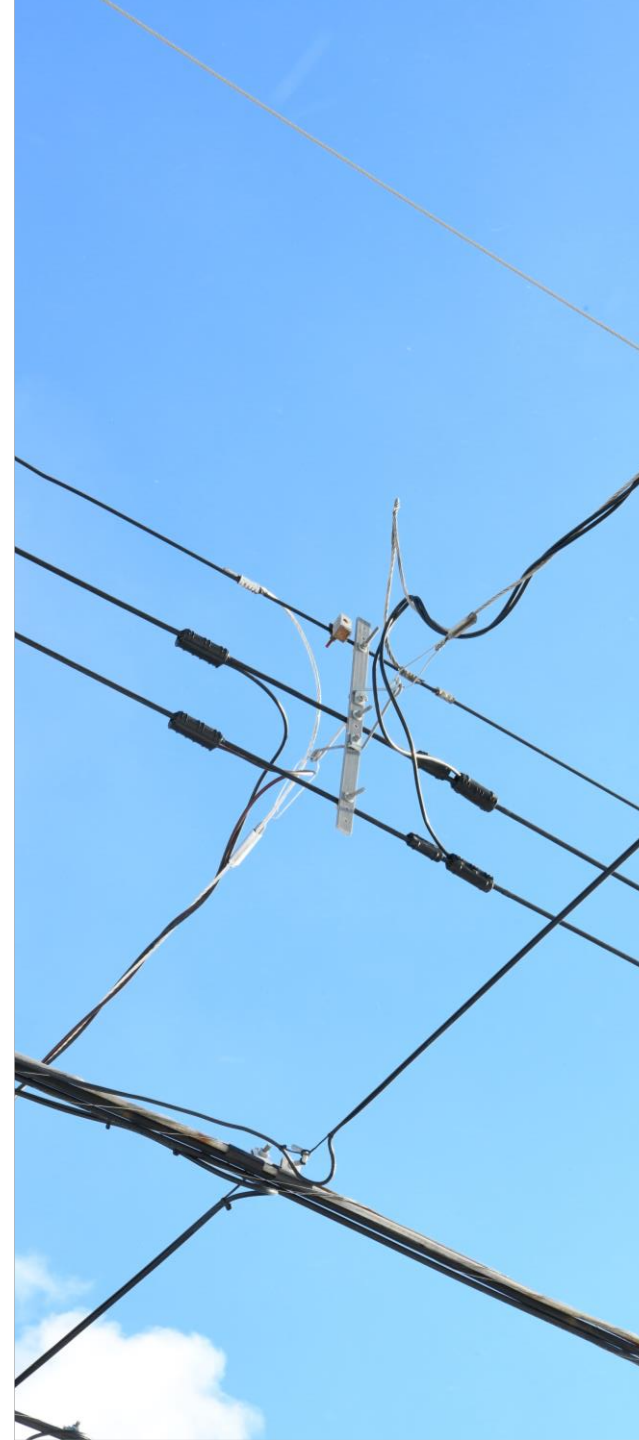
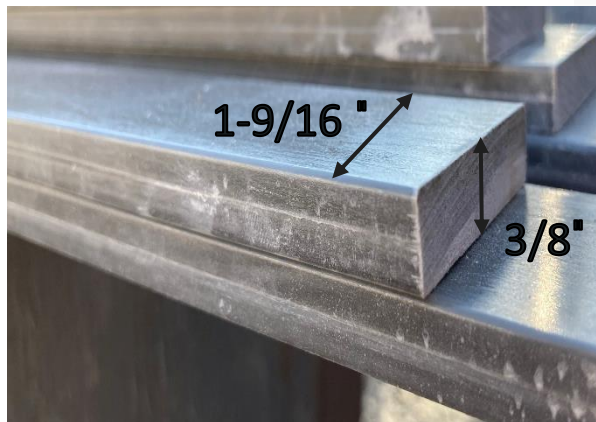
The **very high dielectric strength** of our composites makes them an ideal solution in any and all electric projects. They are lightweight, durable, weather resistant, corrosion resistant, and require little maintenance.



Our standard Dimension

3/8" X 1-9/16"

Custom dimensions also available on demand.



Our mid-span bracket bars for power lines are made of high-density polyester resin. They are used as insulating bars in overhead power lines support systems. They are custom-made, contain UV protection and are reinforced with fiberglass.



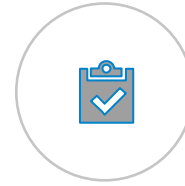
Please note that Pultrusion technique solely provides the bracket. **Metallic and rubber parts are not included.**

TAILORED TO YOUR SPECIFIC NEEDS

A multitude of Applications

Custom profiles

Regardless of your requirements, **Pultrusion technique** has the solution. Our professionals use their expertise and technical skills to create and implement practical and strategic solutions to generate growth and value with our client companies.



Unlimited potential

- Angles
- Beams – C, T, I & wide flange
- U profile
- Dielectric dog bones



Special features

- Custom-built, lightweight and long-lasting
- Superior mechanical properties
- Straight parts, no arc, no camber, no torque
- High strength-to-weight ratio
- High resistance to corrosion and weatherability
- Very accurate dimensional tolerances



Customized solutions

- 3D CAD software and Finite Element Analysis
- Rigorous quality control methods
- Post-sale technical support

Mechanical properties

Bars, rods and profiles

*Typical loading for standard profile
Reinforced with continuous fiberglass roving
Resin is high heat distortion, isophtalic, antacid*

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	-----	-----	-----

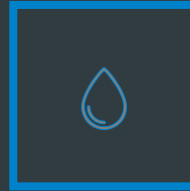
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Epoxy Composite-to-metal bonding

- ✓ Breaking point 35,000 lbs
- ✓ Tension = up to 80,000 psi
- ✓ Bars or profiles bound to metal with special epoxy formulation
- ✓ Specific testing protocols prior to and during epoxy injection, and after curing
- ✓ Engineered and manufactured under strict quality standards



exceptional composite-to-metal bonding technique



ensures a long-lasting corrosion-resistant anchoring system



capable of sustaining extensive tensile loads, i.e. 25,000 lbs (155,500 N).



Pultrusion technique inc.



MEET THE TEAM

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

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.

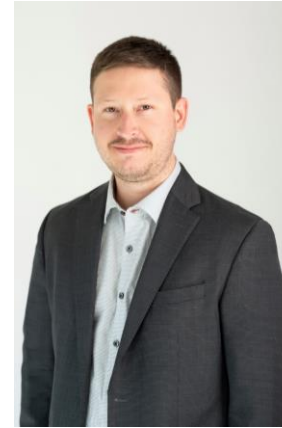
Pultrusion technique inc.

MEET THE TEAM



Robert P. Dufresne, Ing.

Robert Dufresne is a member of the Quebec Order of Engineers (OIQ) and President of Pultrusion technique. He is an innovator with more than 25 years of experience in fiber-reinforced composites (FRP) as well as in the pultrusion process, and he has an enviable portfolio of 16 patents which are testimony to his leadership in the industry.



Xavier Dufresne, EMBA.

Master's degree in EMBA, from École de technologie supérieure (ÉTS University). With more than 10 years of experience as a plant manager at Pultrusion technique, he is familiar with different composite materials properties and their applications.



Hamid Arabzadeh, Phd.

specialist in structural engineering with more than 12 years of experience in the finite element analysis and design of steel, concrete and composite structures.



Christine Ancil

Executive assistant with more than 30 years of experience in administration, she acquired a wide range of skills and diversified experiences that allow her to provide support in management of the operational elements of the direction, and to serve as a liaison to the President for both internal and external needs.



KEEP IN TOUCH!



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THANK YOU



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