





ENGINEERED FOR EXCELLENCE

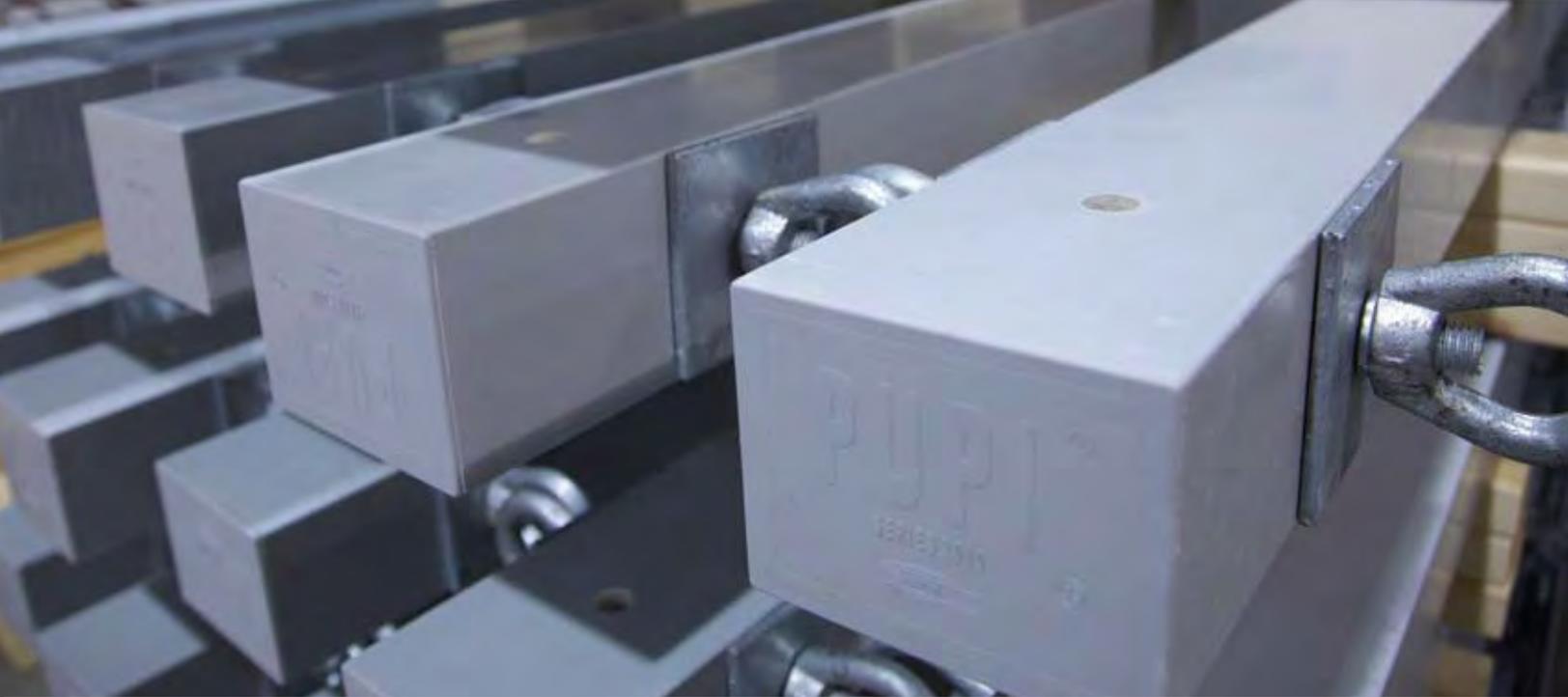
THE FIBERGLASS ADVANTAGE

PUPI crossarms are engineered for consistent strength and reliability. Our crossarms are designed and manufactured using a fiberglass pultrusion process that minimizes material and process variation.

- Proven fiberglass field performance in every climate.
Hundreds of thousands of PUPI fiberglass crossarms are at work in a wide range of environments throughout North America and around the world. From hot, wet and dry climates to extreme cold – not a single PUPI crossarm has failed due to environmental degradation.
- PUPI Crossarms are environmentally-friendly.
Our fiberglass utility products are an environmentally-friendly alternative to wood. They are long-lasting, and require no harmful chemicals as preservatives.

In Canada contact: www.BrewsSupply.com

800.533.1680 | www.pupicrossarms.com



WHY PUPI®

DURABILITY - PUPI crossarms are a product of GEOTEK, an internationally recognized producer, of reinforced pultruded products for the utilities, animal containment, nursery and consumer markets. GEOTEK brings nearly 40 years of pultrusion experience to the PUPI manufacturing process.

RELIABILITY -

LONGEVITY -

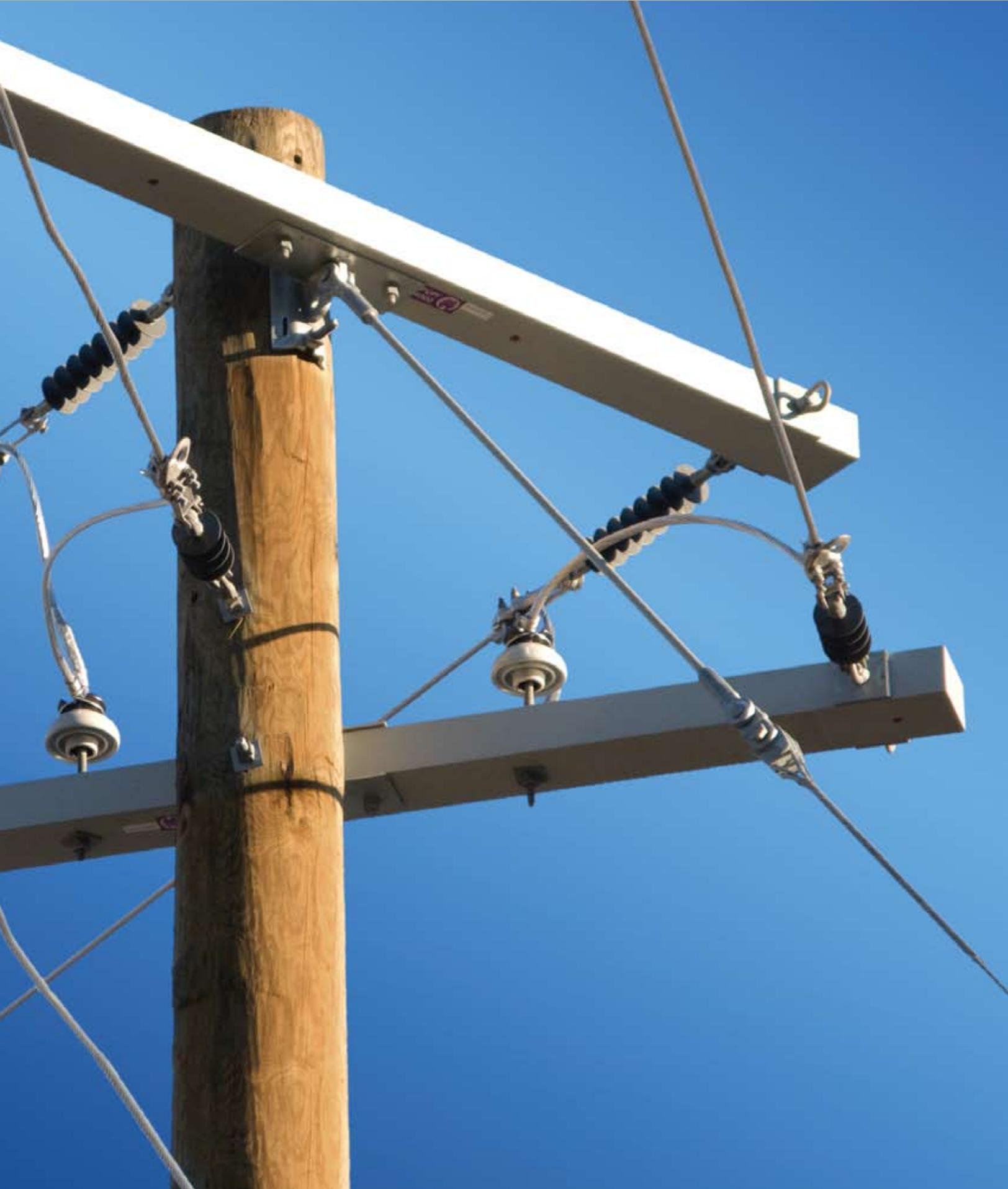
CUSTOMER FOCUS - PUPI is the leading brand of fiberglass crossarms and an innovator in pultruded fiberglass components. We provide specially designed crossarms and components used by electrical utilities around the world. Engineered for superior load capacity and resistance to ultraviolet radiation and weathering, leading utilities choose PUPI fiberglass components for consistent performance and long-term return on investment. We provide electrical utilities the durability, reliability, longevity, and customer responsiveness they are looking for.

LEADERSHIP -

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DURABILITY

PUPI fiberglass crossarms are designed to be the most durable alternative to wood, steel - even other composite crossarms! Our heavy-duty construction and exclusive TorqueGUARD™ bushings protect against damage during hardware installation and provide maximum resistance to bolt and pin torque. In many applications, a single PUPI crossarm has the strength to replace two or more wood crossarms. PUPI users have the peace of mind that they are installing the most durable crossarms available.

RELIABILITY

PUPI crossarms are engineered products, manufactured with a fiberglass pultrusion process that creates products of the highest quality and consistency. Unlike wood, PUPI crossarms are totally free from knots and imperfections that can cause failure over time. PUPI crossarms can withstand transient loads that cause wood crossarms to fail. Because they are specifically designed for utility use, they have the strength to handle any situation, yet are also lightweight and easy to install.

LONGEVITY

SunGUARD® UV protection is thermally-bonded to the surface of every PUPI product, providing the most durable protection available against UV damage. Rigorous testing shows that SunGUARD® UV coating will maintain its effectiveness for at least 60 years, in any climate. Additionally, every PUPI crossarm is completely filled with closed-cell sealant to lock out moisture and contaminants. There has never been a failure of a SunGUARD-treated PUPI crossarm due to environmental degradation.

CUSTOMER FOCUS

Understanding customer needs on a deep level has been a key to the success of PUPI crossarms. We have extensive testing and design capabilities that assure the best solutions to our customers' application needs. We understand the critical nature of the services our customers provide and respond quickly to requests for emergency shipments. Every PUPI product is backed by a dedicated support team that is ready and willing to do what it takes to get the job done.

LEADERSHIP

We developed the first commercially successful composite crossarm and have led the way since the first PUPI crossarm was shipped in 1990. We have invested in materials lab and testing facilities that set us apart from our competition. Today, PUPI is the market share leader in fiberglass crossarms, giving us the largest installed base and the longest service record of any composite crossarm manufacturer. Our products are used at hundreds of utilities across North America and the World. Our track record and dedication to our customers are what keeps PUPI customers coming back year after year.

WHY PUPI®

BUILT TOUGH



PULTRUSION PROCESS

PUPI has more fiberglass crossarm pultrusion experience than any manufacturer. Pultrusion is a highly automated and controlled process for manufacturing continuous fiber reinforced composite materials of the highest strength and reliability. Continuous glass fibers are combined with fiber mats, impregnated with thermosetting resin and drawn through heated dies to cure the structure. For PUPI products, an ultraviolet inhibitor is included in the resin, a resin-rich veil mat forms the surface of the part and SunGUARD® UV resistant coating is thermally bonded to produce composite products with unmatched resistance to outdoor weathering. PUPI pultruded products are designed and manufactured under careful process control to give uniform, predictable properties and reliable performance.



SUNGUARD® UV COATING



All PUPI products feature three levels of weathering protection including exclusive SunGUARD® UV coating. Geotek has been manufacturing fiberglass structural products for outdoor applications since 1972. Since 1982, all fiberglass structures have been produced with SunGUARD® UV coating. Since then, not a single product failure of any SunGUARD® UV coated product has been noted anywhere in the world due to environmental degradation, nor has any measurable coating erosion over time been documented. That's because patented SunGUARD® UV coating is thermally bonded to the surface of PUPI crossarms during the pultrusion process. No other crossarm offers more protection against the elements. With three levels of UV and weathering protection you can expect PUPI crossarms to last 60 or more years in any climate – with the longest track record to prove it.

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TORQUEGUARD™ BUSHINGS

PUPI fiberglass crossarms are built to withstand bolt torque and increase pin connection strength. PUPI tangents, deadends and transmission arms are available with exclusive crush-resistant internal bushings to prevent damage from over-tightening. PUPI crossarms can withstand over 450 ft-lbs of bolt-tightening torque. It's a unique idea that makes installation faster and easier – without the worry of damaging the crossarm. PUPI crossarms with TorqueGUARD™ bushings have been tested to exceed RUS requirements for transverse and longitudinal torque strength.

CLOSED-CELL SEALANT

Inside every PUPI tangent, deadend and transmission arm, you'll find closed-cell polyurethane foam that seals the beam to prevent moisture contamination – and allows field drilling along the length of the arm. This lightweight foam is designed to completely fill the inside of the beam and will never absorb moisture, or allow water to enter the crossarm.

PRECISION DRILLING

PUPI crossarm holes are drilled by automated equipment to meet the tightest of tolerances. Holes are carefully drilled "outside-in" to prevent any possibility of delamination or rough edges.

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TESTING

Geotek brings nearly 40 years of fiberglass pultrusion experience to the PUPI manufacturing process. Engineered for the unique demands of the electrical utility industry, PUPI crossarm performance continues to improve thanks to years of testing and research.

- UV RESISTANCE

PUPI SunGUARD® UV coating provides unmatched field protection against the damages of UV rays. In independent testing using the U.S. Rural Utilities Service's specified 2500 hours of accelerated testing, PUPI crossarms showed no degradation in flexural strength, modulus and deflection and there was no visible change in the color or gloss of the crossarm. Highly accelerated laboratory tests to 10,000 hours exposure showed some lightening of the coating color but no other changes in the coating.

- STRENGTH & DEFLECTION

Numerous mechanical tests from independent test facilities demonstrate that PUPI crossarms consistently meet or exceed stated load limits. PUPI tests measure variability in properties as well as nominal values.

- ELECTRICAL

PUPI crossarms have been tested at leading electrical laboratories and proven to have superior insulating and BIL properties.