Victrex is an innovative, leading global provider of high-performance polymer solutions for aerospace, automotive, energy, manufacturing and engineering, electronics and medical industries. Every day, millions of people rely on products and applications containing our polymers: from smart phones, aircraft and cars, to medical devices, and oil and gas installations.

**SHAPING FUTURE PERFORMANCE**

We work with our customers to develop cutting edge technological solutions that help shape their future performance. From concept to commercialisation, we support in the areas of design, processing and application development – extending your team’s in-house capabilities and helping you to accelerate time to market.

**HIGH-PERFORMANCE VICTREX™ PEEK**

Victrex™ PEEK is regarded as one of the highest performing engineering thermoplastics in the world. With both material expertise and in-depth application knowledge, we can help solve complex design challenges for demanding applications in extreme environments.

**TO LEARN MORE AND FIND OUT HOW WE CAN HELP YOUR LATEST DESIGN CHALLENGE**

VISIT WWW.VICTREX.COM

**WELCOME TO INDUSTRY 4.0**

**SOLUTIONS FOR YOUR MARKET**

Victrex provides application specific solutions for component design engineers and OEMs, across a range of manufacturing and engineering industries. Find out how we are helping to shape performance in four key industrial markets.

**FLUID HANDLING**

Including: pumps and valves, compressors, filtration

- **Rotor Shaft Bushings**
  - Up to 2X operating lifetime of steel bushings
  - 10X durability of polyamide - with no deterioration in bearing applications

- **Generator Pump Gear**
  - 10% higher lifetime efficiency than metal-based pump.
  - Our design & moulding know-how can eliminate machining

- **Process Controls**
  - Including: meters, sensors, analytical equipment

**POWER SYSTEMS**

Including: power storage, connectivity, wire and cable

- **E-motor Slot Liners**
  - $6 reduction per e-motor unit cost without compromising output or reliability
  - Moisture resilience increases reliability in wet/humid environments

- **Proximity Sensor Housing**
  - Tightness tested – 1,000 hours thermal cycling from 0°C to 100°C
  - Long lasting and safe sensor function in the most demanding hygienic environments

**INDUSTRY 4.0**

- **Flexible Shaft Bushings**
  - Up to 2X operating lifetime of steel bushings
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- **Power System**
  - 10% higher lifetime efficiency than metal-based pump.
  - Our design & moulding know-how can eliminate machining

- **Process Controls**
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**DISCOVER HOW WE CAN HELP YOU**

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KEEPING HIGHLY AUTOMATED INDUSTRIAL ENVIRONMENTS MOVING – WITH MINIMAL MAINTENANCE AND TO THE HIGHEST SAFETY STANDARDS – IS A CONSTANT CHALLENGE.

Equally as important is the drive to advance manufacturing operations using the digitisation benefits of Industry 4.0. And when the performance of each component is critical to success, materials and expertise make all the difference.

Victrex has over 35 years’ experience of understanding design challenges in the harshest environments, and providing high-performance polymer-based solutions that redefine possibilities. In essence, collaborating to deliver the vision of tomorrow’s manufacturing – today.

**WE HELP YOU TURN INDUSTRIAL CHALLENGES INTO BENEFITS**

WE WORK WITH INDUSTRIAL COMPANIES TO SOLVE THE COMPLEX DESIGN CHALLENGES WITHIN DEMANDING APPLICATIONS, AND IN TURN WE:

**DESIGN FOR**

**RELIABILITY IN EXTREME ENVIRONMENTS**

Durable solutions that replace metals to improve component lifetime in hot, corrosive/erosive environments.

- 20M CYCLES LIFETIME for VICTREX™ PEEK Hydraulics valves tested under 350bar pressure.
- ZERO LUBRICATION needed in VICTREX™ PEEK bearings.

**PURITY TO PERFORM IN THE MOST CRITICAL APPLICATIONS**

Exceptional chemical resistance, high purity, and compliance with food and liquid contact standards.

- 20+ YEARS TRUST IN FOOD & BEVERAGE CLEAN-IN-PLACE APPLICATIONS Compliance with 3A, FDA, NSF and EU food and drinking water standards.
- CIP COMPLIANCE with Clean-In-Place/Sterilisation-In-Place processes and aggressive cleaning agents.

**INCREASE RELIABILITY**

Higher lifetime efficiency with VICTREX™ PEEK valve cones vs. stainless steel due to simplified fabrication process.

**MEET PURITY AND COMPLIANCE STANDARDS**

Compliance with 3A, FDA, NSF and EU food and drinking water standards.

**INCREASE PERFORMANCE THROUGH PRECISION**

High-precision injection moulded parts and excellent material properties, deliver fabrication and end-use efficiencies throughout the application lifetime.

- TOLERANCE IN FLOW RATE VICTREX™ PEEK provides high-precision volume metering with minimum pressure loss.
- HIGHER LIFETIME EFFICIENCY Precision moulding and durability delivers a lifetime of efficiency.

**IMPROVE PERFORMANCE THROUGH PRECISION**

- HIGHER PRODUCTIVITY AND COST REDUCTION IN FABRICATION & OPERATION
- INCREASE PRODUCTIVITY AND REDUCE COST

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WE HELP YOU TURN INDUSTRIAL CHALLENGES INTO BENEFITS

Keeping highly automated industrial environments moving – with minimal maintenance and to the highest safety standards – is a constant challenge. Equally as important is the drive to advance manufacturing operations using the digitisation benefits of Industry 4.0. And when the performance of each component is critical to success, materials and expertise make all the difference.

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Durable solutions that replace metals to improve component lifetime in hot, corrosive/erosive environments.

**20M Cycles Lifetime**

for VICTREX™ PEEK Hydraulics valves tested under 350bar pressure.

**ZERO Lubrication**

needed in VICTREX™ PEEK bearings.

**ENJOY A LIFETIME OF PRECISION**

High-precision injection moulded parts and excellent material properties, deliver fabrication and end-use efficiencies throughout the application lifetime.

**1% +/− Tolerance in Flow Rate**

VICTREX™ PEEK provides high-precision volume metering with minimum pressure loss.

**10% Higher Lifetime Efficiency**

Precision moulding and durability delivers a lifetime of efficiency.

**PURITY TO PERFORM IN THE MOST CRITICAL APPLICATIONS**

Exceptional chemical resistance, high purity, and compliance with food and liquid contact standards.

**20+ Years Trust in Food & Beverage Clean-in-Place Applications**

Compliance with 3A, FDA, NSF and EU food and drinking water standards.

**CIP Compliance**

with Clean-In-Place/Sterilisation-In-Place processes and aggressive cleaning agents.

**HIGHER PRODUCTIVITY AND COST REDUCTION IN FABRICATION & OPERATION**

Inherent design and processing flexibility of our materials enable the development of smarter solutions.

**5X Lower Cost**

with VICTREX™ PEEK valve cones vs. stainless steel due to simplified fabrication process.

**$2M Annual Savings**

in wafer fab. processing costs with high-wear VICTREX™ PEEK polishing rings.

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MEET PURITY AND COMPLIANCE STANDARDS

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  - **ZERO LUBRICATION** needed in VICTREX™ PEEK bearings.

- **ENJOY A LIFETIME OF PRECISION**
  - High-precision injection moulded parts and excellent material properties, deliver fabrication and end-use efficiencies throughout the application lifetime.
  - **< 1% TOLERANCE IN FLOW RATE** VICTREX™ PEEK provides high-precision volume metering with minimum pressure loss.
  - **< 10% HIGHER LIFETIME EFFICIENCY** Precision moulding and durability delivers a lifetime of efficiency.

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**POWER SYSTEMS**
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**FLUID HANDLING**
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**MANUFACTURING & PROCESS EQUIPMENT**
- **ROTOR SHAFT BUSHINGS**
  - Up to 2X operating lifetime of steel bushings
  - 100% durability of polyamide - with no deterioration in bearing applications

**POWER SYSTEMS**
- **E-MOTOR SLOT LINERS**
  - $6 reduction per e-motor unit cost without compromising output or reliability
  - Moisture resilience increases reliability in wet/humid environments

**FLUID HANDLING**
- **ROTOR PUMP GEAR**
  - 10% higher lifetime efficiency than metal-based pump
  - Our design & moulding know-how can eliminate machining

**PROCESS CONTROLS**
- **PROXIMITY SENSOR HOUSING**
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