## KEEPING YOUR WORKING EQUIPMENT WORKING OVERTIME

WELCOME TO INDUSTRY 4.0



## 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.

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

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



INCREASE RELIABILITY



MEET PURITY AND COMPLIANCE STANDARDS



IMPROVE PERFORMANCE THROUGH PRECISION INCREASE PRODUCTIVITY AND REDUCE COST

### 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 Hydraulic valves tested under 350bar pressure.

## ZERO T

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.

## **COC 1%** +/-

#### **TOLERANCE IN FLOW RATE**

VICTREX<sup>™</sup> PEEK provides highprecision volume metering with minimum pressure loss.

## **710%**

#### **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 CONTACT APPLICATIONS

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



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.

### 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.

#### **MANUFACTURING & PROCESS EQUIPMENT**

Including: food and beverage, production machinery, automation equipment



#### Rotor Shaft Bushings

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Up to 2X operating lifetime of steel bushings

10X durability of polyamide - with no deterioration in bearing applications

#### **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

#### **FLUID HANDLING**

Including: pumps and valves, compressors, filtration



#### Gerotor 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



#### Proximity Sensor Housing

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) Tightness tested – 1,000 hours thermal cycling from 0°C to 100°C

6 Long lasting and safe sensor function in the most demanding hygienic environments

DISCOVER HOW WE CAN HELP YOU WWW.VICTREX.COM INDUSTRY4.0@VICTREX.COM

### SHAPING FUTURE PERFORMANCE

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.

### **▼**HIGH-PERFORMANCE VICTREX<sup>™</sup> PEEK



VICTREX<sup>™</sup> 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. 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.

#### TO LEARN MORE AND FIND OUT HOW WE CAN HELP YOUR LATEST DESIGN CHALLENGE VISIT WWW.VICTREX.COM

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