

WORLD LEADING INNOVATIONS IN  
FLUOROPOLYMER PROCESSING



**FLUOROCARBON**



Introduction

# Who we are

**Founded in 1962, Fluorocarbon specialises in the design and manufacture of complex machined components, PTFE seals, slide bearings, skidways systems and high performance coatings. With customers who are worldwide market leaders across many business areas we ensure our products & services are focused on meeting their increasing demands.**

The Fluorocarbon Group has 3 manufacturing sites: 2 in the UK and 1 in Europe, sales offices in Europe and the USA and partners globally. We aim to offer our customers high quality, cost effective solutions, from material selection and product design to manufacturing and distribution.

With a quality system certified to ISO 9001:2015 and a group research and development team striving to bring new materials and products to market, we have the in-house capability to offer bespoke products tailored to meet the individual requirements of our customers.

What we do

# M arkets



## Aerospace

With customer approvals including Airbus UK, Rolls Royce and BAE Systems, our products are deployed across applications in major commercial and military aircraft programmes.



## Chemical Processing

We supply a vast range of high performance components that allow operation over a wide temperature range, whilst offering outstanding chemical resistance and flexibility.

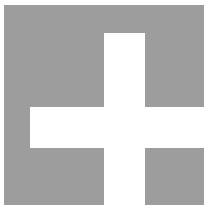


## Food

Offering a wide range of products to suit applications in the food & beverage and industrial bakeware market, we take great care to ensure that FDA approvals are met.

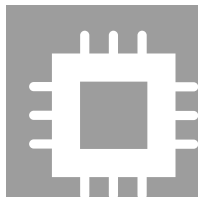
Fluorocarbon is one of the UK's largest fluoropolymer processors.

Our solutions have been installed in more than 60 countries and across all continents



#### Medical & Pharmaceutical

Chemical resistant components are developed specifically to meet the rigorous demands of sensitive medical device applications.



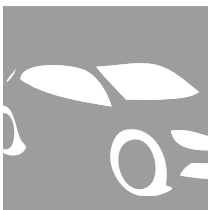
#### Semi-conductor

Semicon OEMs across the world are supplied with critical components for use in sophisticated wafer-processing equipment.



#### Water & Environmental

Our high purity and ozone resistant products are designed to offer longevity and perform in specific customer environments.



#### Automotive

We are committed to the development of products to meet our automotive customers' present and future requirements. Our cost-effective components offering longevity are designed to meet the high quality demands dictated by APQP, PPAP and SPC.



#### Off-highway

The arduous off-highway and construction industry requires products that can withstand extreme physical displacement. With this in mind, we design and manufacture resilient components that also offer exceptional weather and abrasion resistance.



#### Oil, Gas & Petrochemical

The oil and gas industry is provided with a wide variety of components for applications designed to withstand the most extreme pressures and temperatures such as sub-sea constructions, platforms and process plants.

Our Range

# High Performance Stock Shapes

**With over 50 years of experience in the manufacture of PTFE, melt fluoropolymers and high performance polymers, our range of engineering plastics & stock shapes is one of the most extensive in the world.**

The Fluorinoid® range is available in many variants including inhouse blended grades to incorporate fillers such as glass, carbon fibre, graphite and bronze as well as unfilled virgin materials. This, combined with our latest machining and measuring technologies, offers a high quality end-to-end service that is second to none.



## Melt Fluoropolymers

Using our specialised processing equipment and wide tooling range we are able to convert high performance and melt fluoropolymer materials into shapes for post machining or low to high volumes of moulded components.

Available in materials including PEEK, PCTFE, PFA and FEP, our range of products includes extruded and hot compression moulded rod, heavy tubing, sheet and custom shapes.

We offer:

- Rod & Tube
- Sheet & Tape
- Etching & Bonding

For Melt Fluoropolymer, PTFE Rod & Tube, and Etching & Bonding contact +44 (0)845 250 5100

For PTFE Sheet & Tape and Etching contact +44 (0)161 777 6300

For more information, please see our High Performance Engineering Plastics and Stock Shapes Brochure



**SERVICES INCLUDE:**

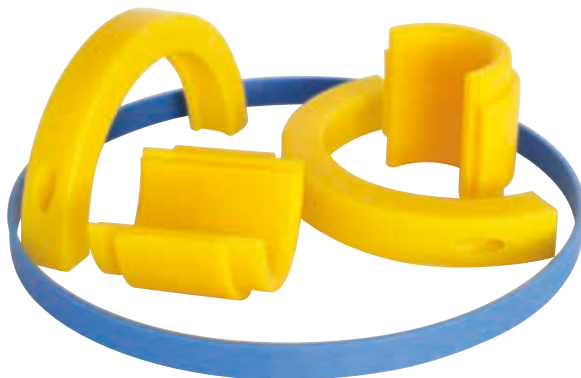
- Stress relieving service available to enable machining to tight tolerances
- In-house tensile strength and elongation testing
- Precision grinding service to ensure close tolerances for modern machining

Our Range

# Machined Components

**Utilising the latest technology, we specialise in the precision machining of fluoropolymer materials into complex components for use throughout many markets including aerospace, chemical, medical, pharmaceutical and telecommunications.**

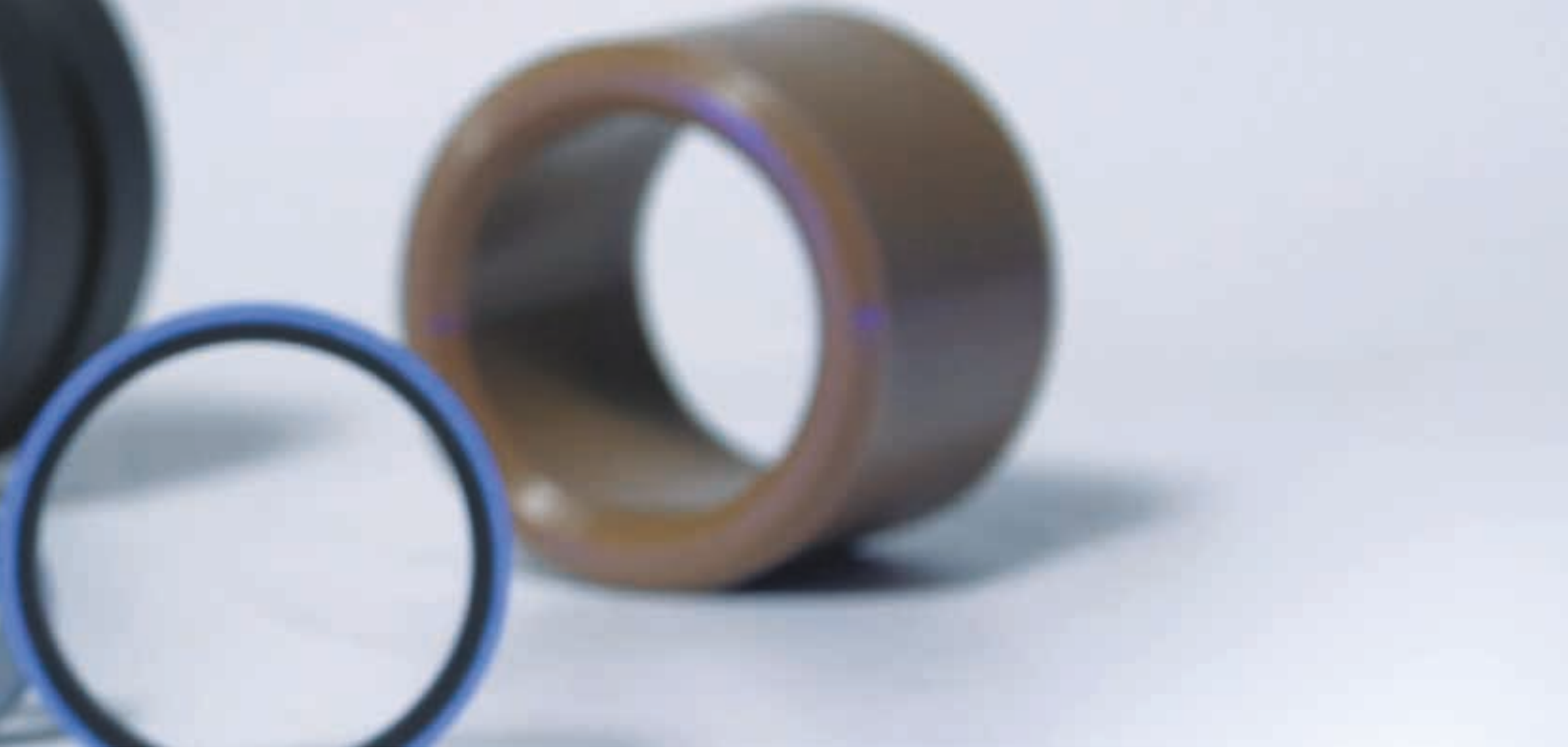
Whether prototype or volume manufacturing, our state of the art facilities including: milling, turning centres, CNC lathes and multi axis CNC and sliding head machines enable us to offer a service tailored to meet specific customer requirements.



Fluorocarbon offer a wide range of modern manufacturing services which can be utilised in the production of high precision machining. We provide machined plastic solutions in the form of prototype, components and assemblies for industries including Oil & Gas, Marine, Defence, Telecommunications and Aerospace.

For Machined and Moulded components contact +44 (0)845 250 5100





Our Range

# Moulded Components

**Exploiting our extensive injection and transfer moulding facilities we convert the widest range of melt fluoropolymers and advanced engineering thermoplastics into precision component parts. In addition, complex PTFE components are produced by isostatic and automatic moulding processes.**

Our high quality products are supplied for some of the world's most prestigious projects and used across many markets including chemical, medical, fluid handling and aerospace.

Moulding technologies are enhanced by first class technical support, material advice, product and mould design.

## Injection Moulding

Fluorocarbon's range of specially modified, high temperature, injection moulding machines manufacture a wide variety of customer components from thermoplastics and fluoropolymers including PFA, FEP, PCTFE, PEEK, ETFE, ECTFE, PES, PAI and PPS.

Optimised for cost and reliability, our facilities mould complex shapes in high volume production and/or one-off bespoke parts for a specific application. Using our unique tooling system we can supply samples and prototypes prior to production.

## Isostatic Moulding

Isostatic moulding, originally developed for the manufacture of ceramics, can provide the solution to enable intricate and contoured shapes to be produced with little or no machining. We have the ability to produce high quality, large and complex shapes in PTFE which, to date, has been virtually impossible to produce other than by extensive machining and fabrication.

Our Range

# High Performance Surface Coatings

## A LEADER IN BESPOKE COATING SOLUTIONS

With over 50 years of experience, Fluorocarbon Surface Technologies is equipped with the breadth of experience and technical expertise to assist customers in variety of applications such as:

- Corrosive, Cryogenic or Aggressive Chemical Environments
- Low Friction, Non Stick or Hydrophobic
- Thermal and UV Resistant

Whether protecting a subsea component, dissipating heat on a heat exchanger or eliminating exposure in a medical device, we work with our customers to understand their needs and our experience ensures we recommend the

most accurate and cost-effective coating to add product value and a distinct competitive advantage.

Our coating plant and conveyer ovens are capable of high volume production, whilst large and small single batch ovens take care of low volume or one off coating requirements.

Our F-LON® range includes fluoropolymers (PTFE, FEP, PFA, ECTFE, ETFE...) and Sol-Gel Ceramic Technology. In addition, we have strong partnership with major suppliers including Thermolon (TM) DUPont (Teflon) Whitfords (Xylan) Solvay (Halar), Arkema (Rilsan) and SBS.

We acknowledge the following trademarks: Teflon® - El. DuPont de Nemours and Company. USA Xylan® - Whitford BV; Halar® - Solvay Sulexus Inc. USA; Rilsan® - Arkema. France; SBS®; Thermolon™; F-Lon®

As a leading fluoropolymer processor with over 50 year's experience, our products and coating services can be found worldwide throughout many markets

For Industrial Surface Coatings contact +44 (0)845 250 5100  
For more information please see our Industrial Surface Coatings Brochure



**SERVICES INCLUDE:**

- Solvent and aqueous degreasing
- Grit/shotblasting
- Aluminium oxide
- Chilled iron
- Steel grit
- Glass bead
- Flame spraying
- Other blast media are available

Our Range

# S eals

**At Fluorocarbon we are dedicated to the design and manufacture of high performance energised PTFE seals, Fluoroglide® PTFE bearings, metal sealing rings and PTFE lipped rotary shaft seals. Seals are available with rubber or metallic spring energisers in a wide range of forms and materials to meet almost any sealing application.**

We offer custom solutions for use throughout many industries including chemical, pharmaceutical, food processing, aerospace, automotive and offshore, as well as custom designs for special applications.

Designed for use in the most demanding conditions our seals offer the following benefits:

- Excellent chemical resistance
- Wide operating temperature range
- Very low coefficient of friction
- No stick/slip effect
- High resistance to wear
- Good dry running properties

Whether a standard seal or a custom design requirement our dedicated technical team can provide you with innovative and effective solutions to your needs.

We offer custom solutions for use throughout many industries including chemical, pharmaceutical, food processing, aerospace, automotive and offshore



For Seals and Bearings contact +44 (0)845 250 5100

For more information please see our High performance Seals and Bearings Brochure



## Our full range of seals

Bespoke Designed Seals  
Fluoroglide® Bearings  
Polyurethane Seals

Elastomeric Energised Seals  
Rotary Shaft Seals  
Metallic Sealing Rings

Spring Energised Seals



Our Range

# Fluoroglide® Slide Bearings, Pipe Supports & Skidways

The science of managing very heavy load movement requires special understanding. Utilising our range of Fluorinoid® load bearing and skidway solutions to the construction and oil & gas industries.

Based on our 40 years of technical experience we offer a professional design, manufacturing and onsite consultancy service dedicated to resolve slide bearing and skidway needs. We also supply PTFE plain and dimpled inserts to leading manufacturers of pot bearings for road and bridge applications.

**We offer:**  
**Fluoroglide® Slide Bearings & Pipe Supports**  
**Fluoroglide® Skidway**

We produce Fluoroglide® slide bearings in a range of configurations using either virgin or glass filled Fluorinoid® PTFE as the bearing material. Each bearing is designed specifically to suit the application.



## Fluoroglide® Skidways

Based on the proven PTFE slide bearing technology, we design and manufacture bonded PTFE/metallic Fluoroglide® skidway plates to suit individual customer requirements.

In addition, to aid effectiveness of our bearings and reduce breakout friction, we also provide Fluoroslip® 415 and Fluoroslip® 414 with PTFE additive.

## Applications:

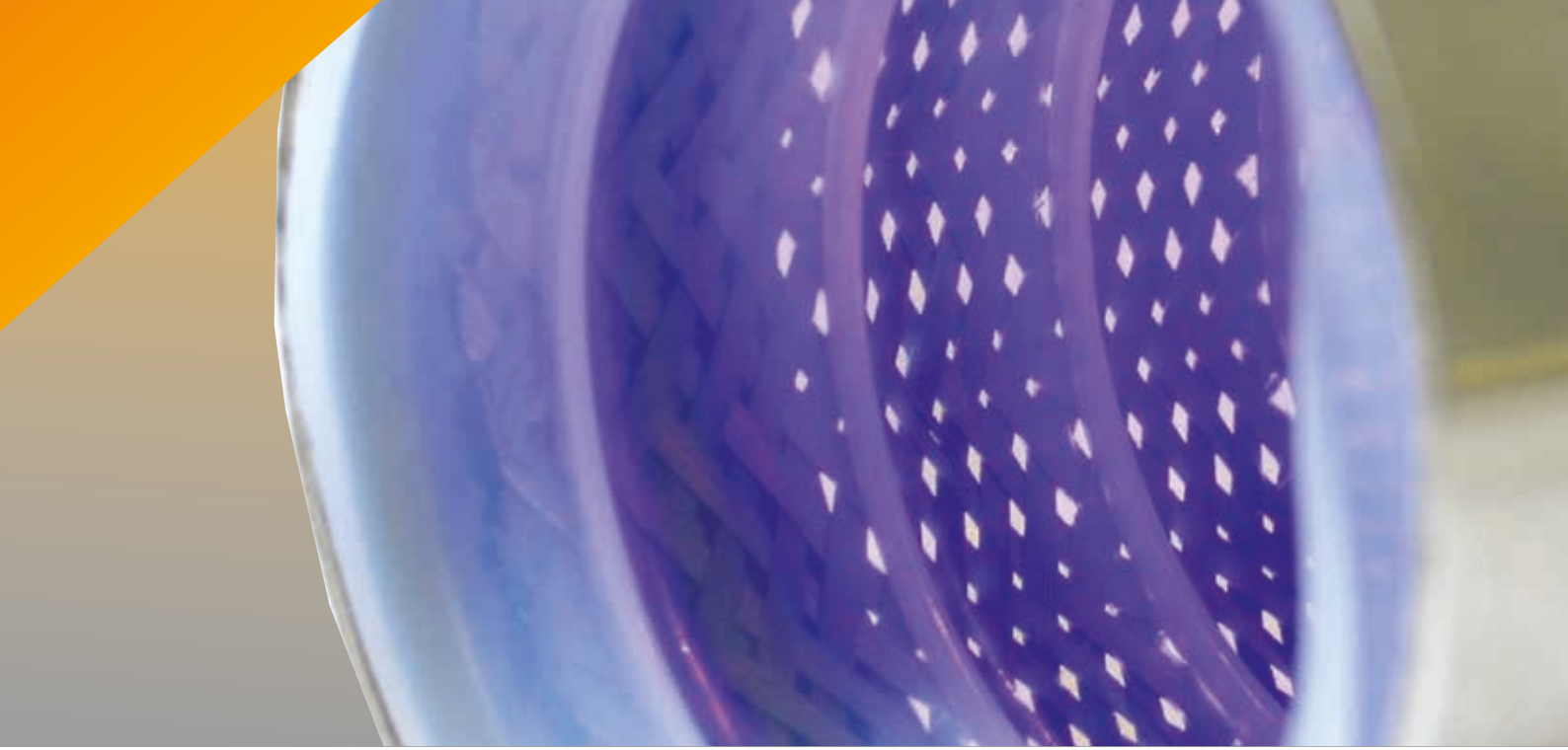
- Expansion movement in pipelines, heat exchangers, concrete decks or pipes
- Cryogenic, vibration and acoustic affects on pipelines
- Steam heated pipelines on North Sea oil production modules
- Oil, water & gas transportation - above ground pipe mains
- Large, complex concrete buildings - multi-storey car parks, civic centres, etc.
- Pedestrian walkways

For Slide Bearings, Pipe Supports & Skidways contact +44 (0)845 250 5157

For more information please see our Fluoroglide Slide Bearings Pipe supports & Skidways Brochure



Our core values of customer focus, high quality and commitment ensure we differentiate from our competitors



Our Range

# Hose

**We offer an extensive range of Fluoroline® PTFE hose and hose assemblies in many configurations including smoothbore, convoluted, braided, unbraided, heat shielded & pre-formed. All assemblies can be supplied with standard or bespoke end fittings.**

PTFE hoses are designed for numerous applications involving high and low temperature, corrosive chemicals, high pressure, steam, food transfer, gases, hydraulic fluids and sterile material.

Our hoses are successfully deployed across various industries including power generation, aerospace, military and chemical processing.

Our Range

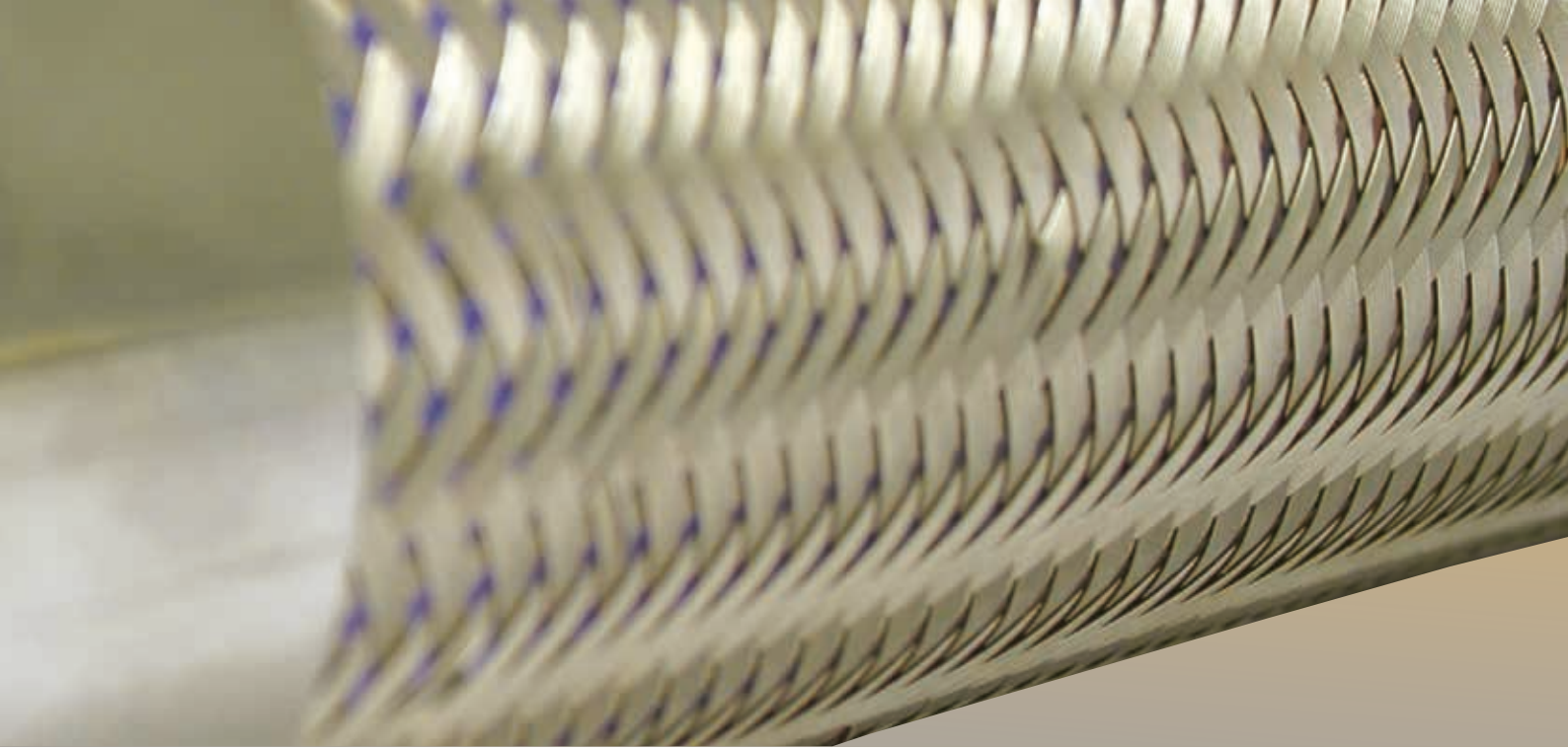
# Valve Seats

**We manufacture a wide range of soft seat configurations across many industries supplying major global customers. Standard valve component materials include all grades of PTFE and modified PTFE, all types of fluoropolymers, high performance plastics and rubber; they are also available in standard sizes, with larger sizes and specially developed materials being available on request**

**Applications:**

- Valve seats and seat inserts - seats for all types of valves including ball valves, butterfly valves, gate valves, chokes and plug valves
- Valve stem seals, including chevron packing and all types of energised seals





Our Range

## P U & Rubber Finished Products

Our team of engineers can design, develop and specify a range of elastomeric components to meet the demands of a variety of applications such as off-shore, construction and off-highway markets. We supply some of the world's largest companies with a range of elastomeric components including:

- Pipe clamps
- Valve seats
- Seals
- Grommets
- Bellows
- Diaphragms
- Bump stops



For more information contact  
+44 (0)845 250 5100

Our Service

# Quality

**At Fluorocarbon it is our policy to continually improve our Quality Management System and every level of our organisation is focused on satisfying and exceeding the needs and expectations of our customers.**

Emphasis is placed on quality throughout the production process, commencing with incoming raw materials, through manufacture and concluding with inspection and delivery of the finished product. We ensure that everyone who has a direct influence on the quality of our products has the skills and training to achieve these ideals.

### Laboratory Testing

Using our modern, qualified laboratory, we offer full traceability on all products and materials and ensure the highest quality finish. Day-to-day testing and analysis to international standards includes ASTM, DIN, BSI and ISO. Testing carried out includes, but is not limited to: tensile, elongation, density, hardness zero strength time and peel testing.



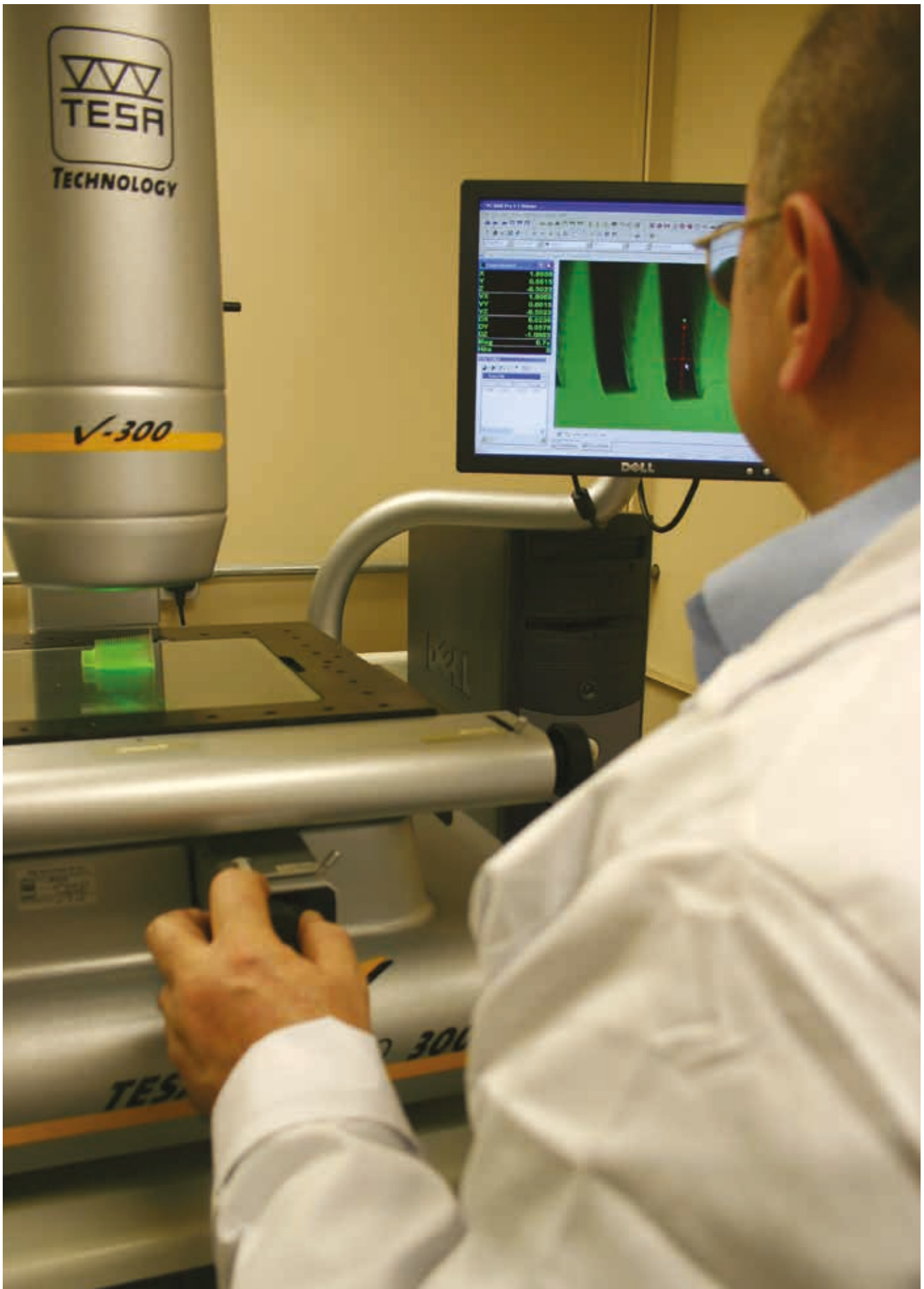
### Environmental Policy

We regard environmental issues amongst our highest priority and continuously seek to improve our performance. Reducing carbon footprint is now fundamental to many organizations. From the stages of design through manufacturing, we strive to minimise any potential impact on employees, customers, the general public and the natural environment by complying with all relevant legislations.

### Approvals

- BS.EN.ISO. 9001 : 2015
- BS.EN.ISO. 14001 : 2015
- AS9100 Aerospace Approval
- BAE Systems Military Programme activities (Approval no. BAE/AG/10755/MAA)
- Rolls Royce
- Airbus UK Limited (Approval no. AUK/SA/30043)
- Dowty - GE
- Raytheon
- Pattonaire









Our Service

# R Research & Development

Offering design, development and laboratory testing facilities to handle projects from concept to full scale manufacture, our team of qualified R&D engineers and material specialists carry out on-going new material and product development projects. Using our strong relationships with worldwide partners we offer engineering solutions tailored to suit specific applications.

## Materials

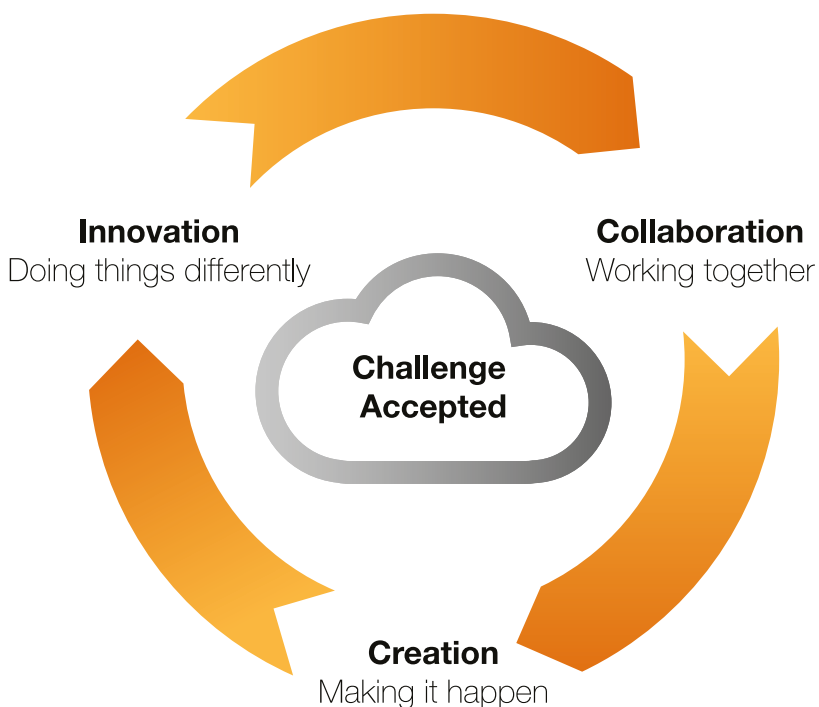
Our Fluorinoid® range includes over 500 materials that offer exceptional characteristics enabling them to operate in demanding environmental conditions at temperatures to over 300°C.

## Materials include:

PTFE, PEEK, PCTFE, PFA, PPS, ETFE and ECTFE.

## Our Service

- Advice on material selection to meet specific applications
- Customer specific blends including colour pigments to provide exclusivity
- Formulation and in-house blending of special material compounds in a clean and controlled environment
- A variety of fillers including glass, carbon, graphite, bronze, ekonol and aluminium
- Testing of materials and finished products to a wide range of European, US and international standards



Contacts

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Main Contact:

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**Fluorocarbon Surface Technologies Ltd**

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