**POWER TO THE FUTURE** 



# **PRODUCTS** & SERVICES

International manufacturer & supplier of specialised sealing products & services.



www.flexitallic.com

## FLEXITALLIC

## THE FLEXITALLIC GROUP IS THE INTERNATIONAL MARKET LEADER IN THE MANUFACTURE AND SUPPLY OF HIGH QUALITY, HIGH VALUE INDUSTRIAL STATIC SEALING PRODUCTS.

## ABOUT US

As the developer of the spiral wound gasket in 1912, we have built on this legacy of innovation with revolutionary products including Thermiculite<sup>®</sup>, Sigma<sup>®</sup>, Change<sup>™</sup> Gasket and more recently Corriculite<sup>®</sup>, our tightest sealing material, which is set to transform the global sealing industry.

We have a global network of Allied Distributors across 30 countries. This ensures local demand is met quickly, providing a combination of the highest product quality and outstanding customer service. Our extensive and varied product offering includes spiral wound gaskets, RTJ gaskets, Flexpro<sup>™</sup> Kammprofiles, sheet materials, dynamic and static packings, pipe support and custom rubber products. Drawing upon the group's rich history and present day values of leadership, quality, service and technology, we are at the forefront of developing sealing solutions for industries around the world.

In addition to a wide range of products, we also deliver world-class technical support and Joint Integrity training.

## **OUR MISSION**

## MAKING THE WORLD SAFER AND CLEANER THROUGH ENGINEERED SEALING SOLUTIONS.



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## BASED ON SALES AND GEOGRAPHIC REACH, THE FLEXITALLIC GROUP HAS BECOME *THE* GLOBAL SUPPLIER OF INDUSTRIAL GASKETS.

## **INNOVATIVE PRODUCT RANGE**

We have a rich history of innovation, which has seen us lead the industry with many new products.

Over the years, our products have gained a reputation for quality, reliability and technology that is second to none.

### **CUSTOMISED ENGINEERING SOLUTIONS**

Our Application Engineering, Production Engineering and R&D teams work closely together to design, develop and manufacture bespoke sealing solutions. We have been responsible for a number of truly revolutionary products, including Thermiculite<sup>®</sup>, Sigma<sup>®</sup> and Corriculite<sup>®</sup>, which ensures we are able to continually meet the ever more stringent requirements of our customers.

### **FLEXITALLIC® SAFE**

Over the last century, our aggressive R&D efforts have helped customers become Flexitallic<sup>®</sup> Safe. From the first Spiral Wound Gasket in 1912 to the ever evolving applications for Thermiculite<sup>®</sup>, our goal is to develop materials that push the parameters of heat, pressure and chemical resistance.





### **OUR COMMITMENT TO QUALITY**

We place great emphasis on maintaining international quality standards, and are approved to ISO 9001: 2015, ISO 14001:2015, ISO 45001: 2018, API 6A and API 17D, to ensure we meet the highest possible standards for all our products and services. We also invest heavily in test and quality assurance equipment to maintain our reputation for the highest quality products.

Our materials are subjected to a wide range of tests as specified by statutory regulations and customer requirements. These approvals enable our customers to make informed choices as to the suitability of a product for each and every application.

## **INSIDE INDUSTRY**

We pride ourselves on not simply supplying products, but by supporting customers with a detailed knowledge of their industry and applications, so that products and services are tailored to their specific needs. This unique approach means that we focus on providing more than just a product, but also a complete solution that adds genuine value to our clients.

## **GLOBAL DISTRIBUTION... LOCAL SUPPORT**

Our products are distributed through a global network of Allied Distributors. These carefully selected distribution partners are strategically located within their territory to deliver the best possible service and products to our customers. This approach means our products and know-how are available to the global industries we service.

## CHANGE<sup>™</sup> GASKET

## ENGINEERED LIKE NOTHING ELSE. TO PERFORM LIKE NOTHING ELSE. WHAT A CHANGE<sup>™</sup>.

When we invented the spiral wound gasket in 1912 there was nothing like it. 100 years of innovation later, we introduce the Change<sup>™</sup> gasket. Again, there's nothing like it.

Incredibly robust and resilient, the metal-wound Change<sup>™</sup> heat exchanger gasket is designed to deliver the most dynamic seal ever.

The Change<sup>™</sup> gasket is manufactured with proprietary equipment, using a 5-times thicker metal spiral and a unique laser welding process that penetrates completely through the winding, so it requires no inner or outer ring and is easy to handle and install as a double-jacketed gasket. Best of all, it's proven to perform without fail at least 60% longer than any other heat exchanger gasket – spiral wound, double jacketed, corrugated or kammprofile.

## BENEFITS

- Excellent compression and recovery
- High performance in thermal cycle applications
- Robust and versatile design
- Fire-safe (API 6FB)

Gasket Installation Services are available via our team of Integrity Engineers who will assure Leak Free start up.

## THE CHANGE<sup>™</sup> GASKET. UNIQUELY MANUFACTURED.

## SHAPE

- Unique wire profile
- 304, 316L & other materials
- Develops a uniquely solid gasket

## LASER WELDED

- Higher unit adhesion
- Pin point accuracy
- Solid construction

## change







## THERMICULITE®

## ANOTHER FIRST FOR FLEXITALLIC. THERMICULITE<sup>®</sup> - THE COMPLETE SEALING SOLUTION.

Thermiculite<sup>®</sup> is specified by name where critical sealing matters. Applications include Petro chemicals, Fertilisers, OEM and Oil & Gas applications, where process conditions are extreme.

Our experienced engineers use the versatility of Thermiculite<sup>®</sup> to create bespoke sealing configurations in equipment and piping systems to increase operational up-time for our customers. This truly remarkable product has proven itself as an effective long-term sealing solution in over 600 of the most demanding industrial sealing applications.

Thermiculite<sup>®</sup> is a patented product with amazing versatility. Not only can it withstand high temperatures and corrosive environments, due to our unique formulation, we are able to offer Thermiculite<sup>®</sup> as a stand alone sheet material, as a filler for SWG's, as a facing for Kammprofiles and also in many of our other product lines.

We have also developed a range of valve stem packings, using Thermiculite<sup>®</sup> technology, for use in the most arduous service.

## PROVEN TRACK RECORD IN THE FOLLOWING INDUSTRIES

- Power Generation
- Automotive
- Fertiliser (Agro-Chemicals)
- AerospaceOil Refining
- Oil Exploration
- Industrial Chemicals
- Emerging Technologies (Solid Oxide Fuel Cell)

## PRODUCTS

- 700-800 Series sheet grade
- 866 specialist grade (SOFC)
- 896 aerospace
- Kammprofiles
- SWG
- Static and Dynamic Packings
- I-Flex Isolation Kits
- FRG

## BENEFITS

- Engineered and Manufactured in the UK
- Fire-safe (API 6FB)
- Wide temperature range cryogenic to 1000°C
- TA Luft approved
- Wide availability of styles of gaskets
- Free from oxidation
- Excellent chemical compatibility
- Electrical and thermal insulation
- Universal
- Replaces graphite, PTFE, non-asbestos materials

## *Thermiculite*<sup>®</sup>



## **SPIRAL WOUND GASKETS**

## DRIVEN BY THE INDUSTRY'S NEED FOR SAFE, EFFECTIVE SEALING SOLUTIONS FOR INCREASINGLY DEMANDING APPLICATIONS, FLEXITALLIC INVENTED THE SPIRAL WOUND GASKET IN 1912.

Not satisfied with inventing the iconic spiral wound gasket, we have continued to innovate by developing world leading materials.

Thermiculite<sup>®</sup> is often used as a filler material to provide resistance to temperature, chemical attack and corrosion.

Through precision engineering, the spiral wound gasket, available in unlimited configurations of high quality metals and materials, is individually tailored to meet the demands of each application.

Globally acknowledged to provide a superior seal in the most exacting of conditions, its flexibility and recovery gives it a unique ability to cope with the effects of high pressure, wide temperature fluctuations and bolt relaxation.

Spiral wound gaskets are found in a host of applications across the world, from small diameter turbine gaskets, to HP heat exchangers.

## LEAK-FREE START UP

"By using custom designed heat exchanger spiral wound gaskets, we achieved a leak free start up - a first in 15 years."

Chief Engineer Leading UK Refinery

## PRODUCT RANGE

- Standard Gaskets Available to a range of international standards including ASME / EN
- Low stress sealing element
- Heat exchangers
- Carrier rings
- OEM
- Application specific designs

- Engineered and Manufactured in the UK
- 24/7 manufacturing capability for specialist requirements
- Significant stock holding of standard gaskets
- Flexibility to manufacture and supply gaskets with a combination of inner and / or outer guide rings
- Wide range of machinery that enables us to manufacture any size gasket
- UK centre of excellence supported by global distribution manufacturing
- Custom designs available
- World-class testing and development centre
- Support from our team of Application Engineers



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## FLEXPRO<sup>TH</sup> KAMMPROFILES

## FLEXPRO<sup>™</sup> - THE VERSATILE GASKET WITH THREE KEY FEATURES: COMPRESSIBILITY, LOW STRESS, CONVENIENCE.

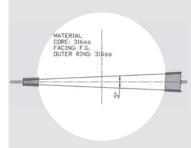
The FLEXPRO<sup> $^{\text{M}}$ </sup> Kammprofile gasket has three key features: the compressibility of a sheet gasket; the sealability of a spiral wound gasket and the ease of handling a solid metal gasket.

FLEXPRO<sup>™</sup> Kammprofile gaskets are the ideal product choice for standard pipeline and heat exchanger applications. They provide a high level of sealing integrity but with the ability to seal at seating stresses normally associated with sheet materials. Kammprofiles are able to cope with high temperatures and pressures making them suitable for heat exchanger service. The product can also be used time and again when correctly refurbished.

### BENEFITS

- Engineered and Manufactured in the UK
- Wide stock of raw materials
- Adherence to the tightest global specifications
- Inspection equipment allowing exact measurement of machined profiles
- TADU machine for very large diameter gaskets
- Thermiculite<sup>®</sup> technology for high temperature applications
- Custom shapes
- Wide range of machinery
- · World class testing and development centre
- Support from our team of Application Engineers

## CASE STUDY: WEDGE KAMMPROFILE



We were contacted late one Friday with the problem, by Sunday the product had arrived on site in Nigeria.

The issue was the misalignment of the mating component which meant a standard gasket could not be used, a bespoke Kammprofile was the perfect fit.

This highlights our capability to turn a customer problem into an innovative solution.

"This novel solution certainly solved a problem that looked like it might prevent the successful start up after shutdown."

Site Shutdown Co-ordination Engineer

### **PRODUCT RANGE**



**STYLE PN** - serrated profile used in confined locations eg heat exchanges



**STYLE ZA** – serrated profile with loose outer ring



**STYLE ZG** – serrated profile with integral outer ring



**CUSTOM SHAPES** - We have developed specialist manufacturing techniques, enabling us to produce FLEXPRO<sup>™</sup> Kammprofile gaskets in a wide range of non-circular shapes and sizes.

These are particularly useful for applications that need the narrow sealing element and low stress seating of a kammprofile, but traditionally have had to use lower grade products such as jacketed or metal reinforced gaskets. Applications include oval, obround and square manway and boiler door joints and large rectangle gaskets for fin-fan header boxes.

Contact our Application Engineering Team to discuss specific requirements.



## SIGMA®

## FOR APPLICATIONS WHERE CHEMICAL RESISTANCE IS PARAMOUNT, SIGMA® IS THE ONLY OPTION.

Utilising a unique manufacturing process exclusive to Flexitallic, SIGMA<sup>®</sup> represents the latest generation of biaxially orientated PTFE materials.

All components in the SIGMA® range are FDA compliant. The material's clean nature makes it ideal for use where product contamination is of concern, such as food, pharmaceuticals and electronics.

The chemical resistance and dimensional stability of the material ensures total sealing reliability and minimises fugitive emissions.

To further enhance our product portfolio, we can offer expanded PTFE sheet sealing material (ePTFE) and Gasket Tape.



For more information on the above products please contact our Applications Engineering Team.

## PRODUCTS

500 511 533 588 600

- Engineered and Manufactured in the UK
- Cryogenic to 260°C
- Outstanding chemical resistance across pH range
- Suitable for low bolt load applications
- Materials available in a range of different sheet sizes and thicknesses
- FDA compliant
- Available for oxygen service
- Easy to handle and cut





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## **SHEET JOINTING**

## THE FLEXITALLIC RANGE OF COMPRESSED FIBRE JOINTING IS DESIGNED FOR A WIDE RANGE OF INDUSTRIAL AND ORIGINAL EQUIPMENT APPLICATIONS, WHERE SEALING PERFORMANCE AND SPECIFICATION IS ESSENTIAL.

A comprehensive range of grades are available covering a wide spectrum of applications.

In addition, the materials can be supplied in private brand and colour formats to ensure your company or customer is accorded recognition.

The jointing can be supplied as sheet or as cut gaskets, either to standard or non-standard dimensions.

## PRODUCTS

Flexitallic SF2401, SF2800, SF3300, SF3500, SF4300, SF5000/1, SF2500.

Novus 10 Novus 30 Novus 34 Novus 45 Novus 49 (Graftec)



Novus 26, 28, 29, 40, 48 (Acid), HDS1

## BENEFITS

- Engineered and Manufactured in the UK
- Wide range of service applications
- Easy to handle and cut
- Good bolt torque retention
- Reliable for general service chemicals

## GRAPHITE

Exfoliated graphite products are designed for demanding, general industry applications typical of the petrochemical and refining industries.

Manufactured from high purity exfoliated graphite, our products are available with a variety of metallic inserts and combinations of thickness.

Ultra high purity graphite is available for the nuclear industry, and high pressure grades are also available.

## PRODUCTS

RGS1 RGS3 RGS4

- Wide chemical resistance
- Good compressibility
- Resistent to thermal shock
- Excellent stress retention



# FLANGE RESCUE GASKETS

## WINNER OF THE 2013 NACE CORROSION INNOVATION OF THE YEAR AWARD.



PEADERS'CHO

Innovation



The fight against corrosion is a constant battle. Internal corrosion and damaged flange faces are responsible for a significant proportion of hydrocarbon releases and can have a major impact on operating costs, particularly on ageing assets.

The FRG can be used to seal on damaged flange faces where previously only very costly or time consuming options existed.

By using the FRG range it helps you to fight the corrosion battle head on.

## BENEFITS

- Engineered and Manufactured in the UK
- Significant cost savings
- Speeds up maintenance downtime
- Fire-safe to API 6FB
- Topside/subsea variants
- Bespoke designs available

## THE FRG PRODUCT RANGE:













- Restricted Sigma<sup>®</sup> PTFE bonded to high integrity metal core
- Leak-free seal and blow out resistance
- Bright & easily identifiable for inspection
- Corrosion resistant coating.

## HF ALKYLATION

- Low stress sealing Sigma<sup>®</sup> a tighter seal
- Fire-safe graphite faced serrated metal core
- Designed for ease of identification with problematic connections on HF Acid Plants.

## CRYOGENIC

- Aluminium core as standard
- Core material can be adapted to match the flange materials
- PTFE ring performs in temperatures from cryogenic to 260°C.

## FIRE SAFE

- Thermiculite<sup>®</sup> high temperature insulating corrosion resistant material
- Certified to API 6FB for fire-safe applications.

## **HIGH PRESSURE**

- Stops turbulent media flow to prevent erosion, corrosion and flange degradation
- Available in Style R Oval, R Octag, RX and SRX
- Ideal for topside or sub-sea applications.

## FRG SUBSEA

- Easy sub-sea installation with integrated removable handle
- Use to connect RTJ & RF flanges.



## CORROSION MANAGEMENT GASKETS

## PREVENTING FLANGE FACE CORROSION IN SEAWATER AND HYDROCARBON SERVICES.

Responding to customer demands for an improved material with strong anti-corrosion characteristics Flexitallic has created Corriculite<sup>®</sup> - a filler material for spiral wound gaskets specifically designed for use in corrosion-sensitive environments, such as seawater and hydrocarbon services, across a number of industries, including oil and gas, power and marine.

This revolutionary, non-conductive filler material provides sealing performance and corrosion resistance unlike any other gasket material on the market.

Comparative tests show **Corriculite**<sup>\*</sup> delivers corrosion protection and sealing properties that far exceed other materials currently available.

Conventional graphite gaskets for instance, promote the initiation and propagation of corrosion of flanges due to graphite's electrical conductivity and position in the galvanic series, leading to premature failure and leakage.

## Download the whitepaper on Preventing Flange Face Corrosion in seawater and hydrocarbon services, available at **www.corriculite.com**

- Engineered and Manufactured in the UK
- Fire Safe to API 6FB
- Reduced maintenance costs
- Reduces costly shutdowns
- Maintains seal integrity
- Extends equipment life
- Eliminates safety & environmental risks





## **RING TYPE JOINTS**

## THE METALLIC RING TYPE JOINT IS USED IN THE PETROLEUM INDUSTRY, WHERE HIGH PRESSURE APPLICATIONS NECESSITATE THE NEED FOR A HIGH INTEGRITY SEAL.

Every RTJ that leaves our manufacturing facility is identified with key product information to give you the confidence that our products meet stringent application requirements.

In addition, every material that enters our factory is checked using the latest Positive Material Identification (PMI) technology, which combined with our material database, ensures we have full product traceability.

RTJ's were initially developed for use in the upstream petroleum industry and are also commonly used on valves and pipework assemblies, and high integrity pressure vessels.

## **PRODUCT RANGE**

- Style R oval/octagonal to API/ASME
- Style RX
- Style BX
- Subsea We are able to supply subsea variants in accordance with API 17D
- OEM design

## **PRODUCT FOCUS: RTJ-KAMM**

### The RTJ-Kamm gasket

combines the high pressure seal of an RTJ with the low stress sealing of a Kamm. The sealing faces are serrated and faced which means this style is ideal for use with damaged flange grooves or in low load applications.



- Engineered and Manufactured in the UK
- API 6A and 17D approvals
- Specialist coatings available including xylan, silver and zinc
- Wide stock of raw materials
- Wide range of CNC machines
- The latest inspection technology CNC/CMM
- Custom designs available
- World-class testing and development centre
- Support from our team of Application Engineers



## COMPRESSION PACKINGS

## THE CHOICE FOR VALVES AND PUMPS.

Flexitallic offer a full range of compression packings for valve, rotary pump and reciprocating pump applications.

Packings utilise the most advanced production techniques and materials to ensure a high integrity seal in even the most demanding of industrial applications.

Material constructions include PTFE, graphite, carbon fibre, glass and synthetic fibres in a variety of combinations.

For high performance valve applications, we manufacture exfoliated graphite die-formed rings in virtually any size, section or density to suit requirements.



## **PRODUCT RANGE**

- Compression Packings: 26D, 26L, 45, 50, 304, 305, 306, 310, 713L, 774, 801, 802, 803, 900, 2001
- Fugitive Emissions Packings: 308
- High Temperature Packings: Thermiculite<sup>®</sup> 894, GP1, GP2, GP125
- High Temperature Stem Sets: TR160, Thermiculite<sup>®</sup> 894
- Valve Stem Sets: Enviroflex<sup>™</sup> 500, Enviroflex<sup>™</sup> Hot
- Die-Formed Rings: GR160, TR160

For more information on the full product range available please refer to the Compression Packings brochure on our website.



## FLANGE ISOLATION PRODUCTS

CORROSION MANAGEMENT GASKETS/ELECTRICAL ISOLATION

## FLEXITALLIC ISOLATION SYSTEM, AN INSULATION GASKET TO PROVIDE ELECTRICAL AND THERMAL INSULATION USING SIGMA<sup>®</sup> AND CORRICULITE<sup>®</sup> TECHNOLOGY.

We provide a complete product range to limit corrosion in pipeline systems, using modified PTFE material Sigma<sup>®</sup> and our unique anti-corrosion material Corriculite<sup>®</sup> - both giving unrivalled performance.

The insulating sets are designed to electrically isolate flanges and bolts in cathodically protected piping systems or whatever dissimilar metals are present.

The specially engineered materials used in the ISOFLEX<sup>™</sup> isolation system are also able to extend traditional operating temperature pressures and chemical compatibility, and is aimed at eliminating the concerns and pitfalls of existing market offerings.

## BENEFITS

- Exceeds dielectric and sealing capabilities of all current market products
- Available as individual gaskets and full isolation set
- Fire Safe API 6FB
- Cryogenic to 200°C temperatures
- Can be used on all types of flanges
- Used for both cathodic and galvanic corrosion

## **PRODUCT RANGE**

## ISOFLEX<sup>™</sup>-FS

ISOFLEX<sup>™</sup>-FS is a fire-safe isolation gasket that is ideal for high pressure and critical service applications.

## ISOFLEX<sup>™</sup>-LT

ISOFLEX<sup>™</sup>-LT is less susceptible to localized flange damage and seals better than inclined plane style gaskets.

## ISOPRO-IP

ISOPRO-IP is a flange isolation gasket ideal for low to medium pressure classes and general service.

## IFLEX<sup>™</sup>-LP

IFLEX<sup>™</sup>-LP is capable of effecting a seal over a wide range of applied stress making the product suitable for use in an extensive range of standard and non-standard bolted connections.

Download the Flange Isolation Products brochure for more information.





## HOSES

## FLEXITALLIC OFFER A WIDE RANGE OF INDUSTRIAL HOSE AND BELLOWS ASSEMBLIES TO CATER FOR CHEMICAL, HYDROCARBON, HYGIENIC AND GENERAL INDUSTRIAL MARKETS.

We offer a wide range of Industrial hose and bellows for chemical, steam, utility and FDA transfer duties, in a number of styles including:

- Convoluted stainless steel
- Convoluted PTFE
- Hygienic rubber and PTFE
- Polypropylene and PTFE lined composite
- Rubber lined
- PVC and plastics
- Bellows
- Flexible Connectors

A comprehensive range of end fitting are also available which can be supplied loose or fitted to most host styles.

To assist with your insurance, legal and health and safety compliance obligations we can offer a pressure hose management and testing service.

### This unique service offers:

- S/St unique identification tagging
- Electronic hose register
- Pressure test all hoses to agreed procedures
- Repair service for failed hoses
- On or off-site testing

Should you need assistance with product application identification or additional technical support, please speak to Applications Engineering.





## TECHNICAL & INTEGRITY SERVICES

"FLEXITALLIC ENGINEERS PROVIDE VALUE FOR MONEY, ENGINEERED SOLUTIONS TO CUSTOMERS ON A GLOBAL BASIS, GIVING ADVICE ON GASKET SELECTION, GASKET USAGE AND TROUBLE SHOOTING ON THOSE DIFFICULT APPLICATIONS.

WITH OVER 10,000 DOCUMENTED SOLUTIONS ACCESSIBLE ON OUR GLOBAL ENGINEERING DATABASE THE LIST OF SATISFIED CUSTOMERS CONTINUES TO GROW."

**Dene Halkyard** Technical Director – Flexitallic UK Ltd

### **BOLTED JOINT INTEGRITY**

Flexitallic Application Engineers understand that the use of high quality gaskets, although a prerequisite for joint integrity, are not a guarantee of sealing success.

As a consequence, Flexitallic has a global team of Application Engineers that specialise in bolted joint integrity across a wide range of industries who offer a range of Integrity Services that are designed to complement and enhance Flexitallic's product offering:

- Engineering Drawings
- Bolt Torque and Load Calculations
- Joint Integrity Calculations BS EN1591
- End User Support for Problematic Sealing Applications
- Design Reviews for Bespoke Connections & Critical Equipment
- · Piping and Gasket Specifications
- Gasket Selection and Installation
- Pressure Vessel Design Review (Flange)
- Technical Consultation
- Joint Integrity Management Software (JIMS)
- Joint/Flange Integrity Training

### For more details please contact our Application Engineering Team.



### Do you need help with an application?

Our Application Engineering team have many years of experience and are on hand via our live chat link to answer any questions you have relating to troublesome applications, training our shutdown support.

### **RESEARCH AND DEVELOPMENT**

Flexitallic prides itself on being the leading innovator of new technology within the gasket industry.

We continue to make significant investments in technology in order to support future development of materials and to set new industry benchmarks for the evaluation of existing products.

The UK and US laboratories boast every testing facility expected of a genuine manufacturer of sealing materials. These facilities allow gasket performance analysis under EN 13555 and DIN 28090 to ensure that materials perform as required when deployed into active service.

The facility includes testing equipment described below and some specific R&D test tools such as chlorine ion measurement and some electrical potential measurement.

AMTEC Gasket Tester AMTEC High Temperature Testing (900°C) Methane AMTEC Tester Gasket Testing Shell Thermal Cycle Testing Solid Oxide Fuel Cell - Leakage Testing Stereo Microscope Durability Testing ThermoGravimetric Analyser (TGA) Differential Scanning Calorimeter (DSC) Infra-Red Spectrometer (FTIR) Particle Size Analyser Surface Area Analyser



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## **SHUTDOWN SUPPORT**

DURING SHUTDOWN PERIODS, TIME IS THE MOST VALUABLE COMMODITY, MAKING GOOD PLANNING A MUST. TO THIS END FLEXITALLIC OFFER A COMPLETE SHUTDOWN SUPPORT SERVICE.

## SHUTDOWN SUPPORT

Major maintenance events require not just the supply of good quality products, but also practical support before, during, and after the shutdown.

We have developed a range of services, designed to support major refinery and process customers during shutdown periods.

"OUR CORE PHILOSOPHY IS TO NOT ONLY SUPPLY THE PRODUCT, BUT ALSO A COMPLETE SOLUTION, FROM DESIGN THROUGH TO MANUFACTURE, SUPPLY, INSTALLATION AND ON-SITE SUPPORT."

Mark Horton Managing Director

## CASE STUDY: ROMANIA



**OMV Petrom Romania site required our assistance to install a critical gasket during a major shutdown.** Our engineer supervised the entire installation of a specially designed Thermiculite<sup>®</sup> Kammprofile on the main reactor flange, resulting in a leak free start up on a critical vessel during a major shutdown, which enabled the site to meet industry best practice according to ASME PCC-1-2013.

Gasket Installation Services are available via our team of Integrity Engineers who will assure Leak Free start up.



## These services include:

- Gasket specification review
- Pre-service assessment
- Dedicated team of Field Engineers able to visit site and offer design recommendations and solutions
- Access to web-based Turnaround Manager<sup>™</sup>, resulting in quicker turnarounds and cost savings
- Rapid response mobile service unit
- 24/7 manufacturing capability to produce an extensive range of gasket types
- Experienced Field Engineers available 24 hours
- Training available via The Academy of Joint Integrity to ensure correct gasket installation

For further information please contact enquiries@flexitallic.eu

## **PROJECTS TEAM**

## OPERATING ON A GLOBAL BASIS AND COMBINING THE RESOURCES OF THE FLEXITALLIC GROUP, FLEXITALLIC PROJECTS OFFERS A DEDICATED SERVICE TO THE WORLDWIDE ENGINEERING & CONSTRUCTION INDUSTRY.

Our specialist team offers a comprehensive service from initial tendering through to final product delivery. Drawing on the vast manufacturing capabilities within the Flexitallic Group, we are able to offer a wide range of high quality sealing products as well as first class technical support & advice.

Either working directly with EPC contractors or via our Allied Distributors, we are involved in a wide range of Projects across the world, including LNG and Gas Reception Plants, Petrochemical Refineries, Power Stations, Renewable Energy, GTL Plants, FPSO's and Chemicals Plants amongst many others. With our unrivalled global reach we are also able to offer local manufacturing and after sales support for further requirements once projects are operational.



on the following projects: Dangote (Nigeria) Donges (France) DUQM (Oman) Haor (Azerbaijan) Kall (Belgium) Kingisepp Project (Russia) Kingisepp 2 (Russia) Nakhoda (Russia) Pertamina (Indonesia) PDH Projects (US and Canada) Valero (UK)

**Our global experience includes work** 

West Nile Delta (Egypt)

West Qurna (Iraq)

Flexitallic Projects can be contacted on: projects@flexitallic.eu or Tel: +44 (0) 1274 853433



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## THE ACADEMY OF JOINT INTEGRITY

THE ACADEMY OF JOINT INTEGRITY CAN PROVIDE A RANGE OF COMAH COMPLIANT CERTIFIED TRAINING COURSES, AND ON-SITE INTEGRITY AUDITS.

## **TRAINING COURSES**

The Academy of Joint Integrity offers Accredited and Awareness Training Courses to all personnel who are involved in the assembly and tightening of flanged bolted connections. Mentoring and assessment programmes also complement the training provision. All our training courses are given by industry professionals who themselves have current and relevant industry-based experience.

The Academy has contributed to the latest Energy Institute Guidelines for the Management of Integrity of Bolted Joints in Pressurised Systems, and is also an active member of an ASME sub-committee, developing new initiatives for Pressure Boundary Bolted Flange Joint Assembly.

Courses are delivered by industry experts with extensive site experience and utilise a combination of practical and theoretical training and assessment, and are aligned to International Standards:

### ASME PCC 1 Appendix A

Training and Qualification of Bolted Joint Assembly Personnel.

### EN1591-4:2013

Qualification of Personnel Competency in the Assembly of Bolted Flanged Joints.

### EN 1591-1:2013

Flanges and their joints. Design rules for gasketed circular flange connections. Calculation – Awareness.

ECITB Route to Competency and Mechanical Joint Integrity Critical Bolting Units – MJI10.

#### IChemE Approved Courses

Site-specific approved courses in accordance with International Standards.



"Fundamental to successful joint integrity is the training of the personnel involved in the process of inspection, assembly and tightening of bolted connections.

The Academy provides a range of cost effective tailored training courses to suit the needs of the client or contractor."

Gary Milne Technical Training Manager

### LOCATION

The Academy has dedicated facilities in Aberdeen, Teesside, Ellesmere Port, West Yorkshire, Humberside and South Wales. Training is also offered within our overseas operations.

## COURSES

Training can be delivered in a variety of ways:

- At the Academy, utilising our purpose built training centres
- At the clients premises, utilising mobile training rigs and equipment
- Via 'Blended Training' using a web based learning portal with a unique E-Learning programme.

### BENEFITS

- Legislation compliance
- · Motivated workforce with best practice skills
- Reduced costs with increased asset integrity
- · Access to the latest technical standards and procedures
- Sealing and integrity modules providing greater knowledge
- Alliance and structured support from a world class technical / training team

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## **POWER TO THE FUTURE**

#### UNITED KINGDOM Flexitallic UK Ltd.

Scandinavia Mill Hunsworth Lane Cleckheaton West Yorkshire, BD19 4LN UK Tel. +44 1274 851273 www.flexitallic.com

Branches also in Aberdeen, Middlesbrough, Ellesmere Port and South West.

#### ITALY Flexitallic Italy Sr.I

Via Leonardo Da Vinci 6B 26020 Ticengo CR ITALY Tel. +39 0374 71006 Fax. +39 0374 71277 www.flexitallic.com

#### THAILAND Flexitallic Sealing Technology Co Ltd.

No. 7/456, Moo 6, Amata City Rayong Industrial Estate Mabyangporn Sub-district Pluak Daeng District Rayong Province THAILAND Tel. +66 (0)33017561 ~ 3 Fax. +66 (0)33017564 www.flexitallic.com

## FRANCE Siem Supranite

a Flexitallic Company 31-33 Rue de Mogador 75009 Paris FRANCE Tel. +33 (0)1 48 88 88 88 Fax. +33 (0)1 47 66 88 44 www.siem.fr

#### GERMANY Flexitallic GmbH

**CHINA** 

CHINA

(Suzhou) Co., Ltd

Halskestr. 4a 47877 Willich GERMANY Tel. +49 (0) 2154 95363-0 Fax. +49 (0) 2154 95363-29 www.flexitallic.com

Flexitallic Gasket Technology

Building A, 1868 Guangming Rd

WuJiang Economic 215200

Tel. +86 512 6303 2839

Fax. +86 512 6303 2879

www.flexitallic.com

**UNITED STATES** 

Flexitallic US LLC

6915 Highway 225 Deer Park

Tel. +1 281 604 2400

Fax. +1 281 604 2415

www.flexitallic.com

Texas 77536

USA

Technological Development Zone

#### BENELUX Flexitallic Benelux BVBA

Smallandlaan 21 2660 Hoboken BELGIUM Tel. + 32 3 369 19 68 www.flexitallic.com

#### SINGAPORE Flexitallic Ltd. Singapore Branch

Level 42 Suntec Tower Three 8 Temasek Boulevard SINGAPORE 038988 Tel. +65 68663638 www.flexitallic.com

#### CANADA Flexitallic Canada Ltd.

4340 - 78 Avenue Edmonton Alberta, T6B 3J5 CANADA Tel. +780 466 5050 Fax. +780 465 1177 www.flexitallic.com

#### UNITED ARAB EMIRATES Flexitallic LLC

PO Box No. 6591-Al Jazeera Plot 108, Road E Al Hamra Industrial Area Ras Al Khaimah UNITED ARAB EMIRATES Tel. +9717 202 5300 www.flexitallic.com

Branch also in Abu Dhabi.

#### AUSTRALIA Flexitallic Australia Pty Ltd.

13-15 Vinnicombe Drive Canning Vale Perth, WA 6112 AUSTRALIA Tel. +61 (0)8 9455 2155 www.flexitallic.au

Branch also in Melbourne, Victoria.

### About The Flexitallic Group

The Flexitallic Group is a global leader in specialised sealing solutions and products serving the oil and gas, power generation, chemical and petrochemical industries in emerging and developed markets. Focused on the upstream, downstream and power generation sectors, it has operations in France, the United States, Canada, Mexico, the United Kingdom, Germany, Italy, Belgium, the United Arab Emirates, Thailand, Australia and China plus a network of worldwide licensing partners and distributors.

www.flexitallic.com