



KLINGER OFFSHORE

Oil & Gas



BP p.l.c.



KLINGER GROUP



2,300
employees

2,300 employees work
for the KLINGER Group
worldwide



£ 480
mil.
annual sales

300 million pounds were generated by the
KLINGER Group in financial year 2014

80
countries of the
world to which
the Group has
already exported



19
production
locations
worldwide



for seals, valves and
instrumentation

60

countries worldwide hosting
subsidiaries or a representative
of the KLINGER Group



The Klinger Group was founded in 1886 on production, innovation and development within the sealing industry. This continues to be the cornerstone of our policy.

Original inventors of compressed fibre gasket materials, the group has since developed into the world's largest fluid sealing manufacturers with 40 factories and 60 trading companies on five continents. Total turnover now exceeds US \$500 million. In just over a century many other products have been introduced which have further enhanced the company's role in the manufacture and supply of fluid sealing products.

Our objective is to provide the engineer with the most comprehensive range of sealing solutions in one complete package.

Klinger's reputation as the world leader in the manufacture of compressed fibre materials is also complimented with the most advanced manufacturing facility for the production of semi-metallic and metallic gaskets. Klinger utilise Automated Robotic Manufacturing methods to ensure product quality and high production capacity.

OFFSHORE PRODUCTS

SHIELD INSULATION SETS

Klinger Shield HT

- » Fire-safe to API 6FB
- » Up to 350°C
- » Suitable for use on raised face and RTJ flanges up to class 2500

Klinger Shield

- » Up to 260°C
- » Suitable for use on raised face and RTJ flanges up to class 2500



SAFEGUARD

- » Specially designed to combat the corrosion issues associated with the offshore industry.
- » Safeguard limits further corrosion, giving asset managers and engineers essential quality assurance and cost savings.
- » Corroded flanges can be remade without the need for expensive and disruptive flange replacement or machining.
- » The risk of leaks is reduced, minimising the environmental impact of any installation.
- » Halts in production are reduced, avoiding major loss of revenue.
- » Fire-safe to API 6FB



MAXIFLEX PRO-X

Hybrid gasket combining the ease of sealing of a Maxiprofile and the integrity of a Maxiflex spiral wound gasket.

- » Designed for seawater applications
- » PTFE faced inner ring reduces crevice corrosion at the bore as well as sealing at low loads
- » Mica shield protects the graphite filler
- » Graphite filled windings offers the traditional exceptional sealing performance and outer ring acts as a compression stop



OFFSHORE PRODUCTS



KLINGER GASKET INSERTION TOOL

- » Allows quick and accurate location of RTJs
- » Available for use on R, RX & BX rings
- » Designed to prevent damage to hands and fingers during installation
- » Designed to be used with standard subsea tooling



SENTRY GASKETS

- » Reverse Integrity Gaskets available for use on RTJ and raised face flanges.
- » Leak test both the primary and secondary seal
- » Allows leak testing on individual flanged joints via integrated testing system
- » Speed up leakage testing reducing downtime as well as significantly reducing volume of testing media
- » Validates joint integrity at installation reducing the need to re-visit the joint



RING JOINTS

- » Excellent pressure and temperature capability
- » Manufactured to ASME B16.20, API 6A & to suit API 17D flanges.
- » Wide range of materials available to cover a range of applications

STANDARD PRODUCTS

MAXIFLEX SPIRAL WOUND GASKETS

- » Available to suit a range of temperatures and pressures
- » Wide range of materials in stock to suit a variety of process medias
- » Can be manufactured to suit standard and bespoke flanges, valve bodies, heat exchangers and manholes
- » Fire-safe to API 6FB



MAXIPROFILE

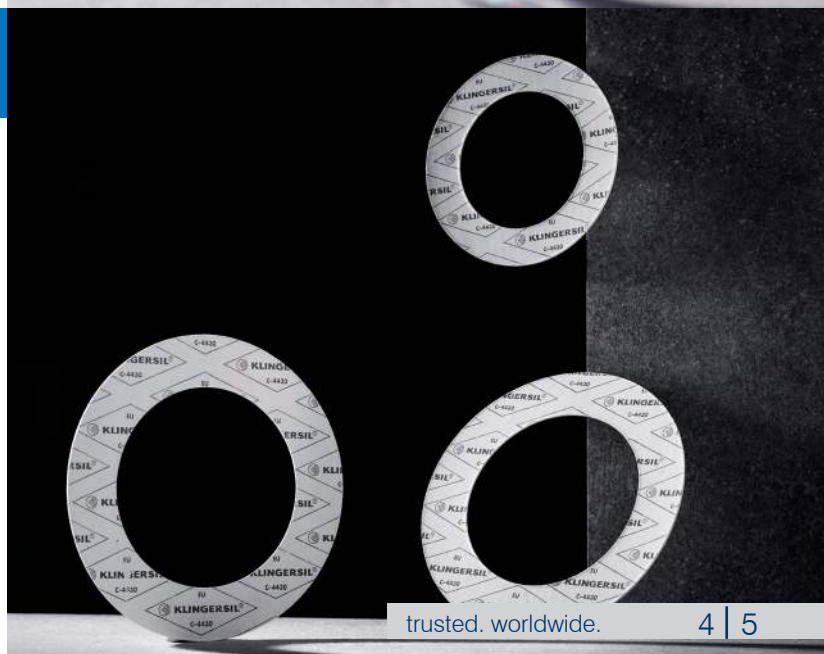
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SHEET GASKETS

Quantum and Klingersil are ranges of specially formulated non-asbestos materials designed to meet the highest standard of performance. Based on organic and inorganic fibres blended with elastometric compounds, they are used on a wide range of industrial applications.

- » Excellent bolt stress retention properties
- » Excellent sealing performance
- » Easy to cut and handle



PRECISION ENGINEERING

Klinger UK's precision production facility specialises in highly complex machined parts. Housing a range of specialised machinery, including CNC Milling and Turning, Surface and Cylindrical Grinding, as well as the latest WEDM equipment.

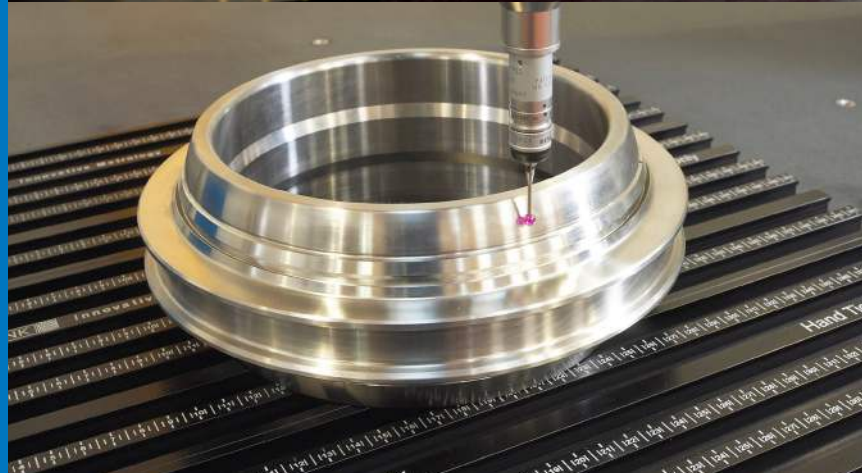
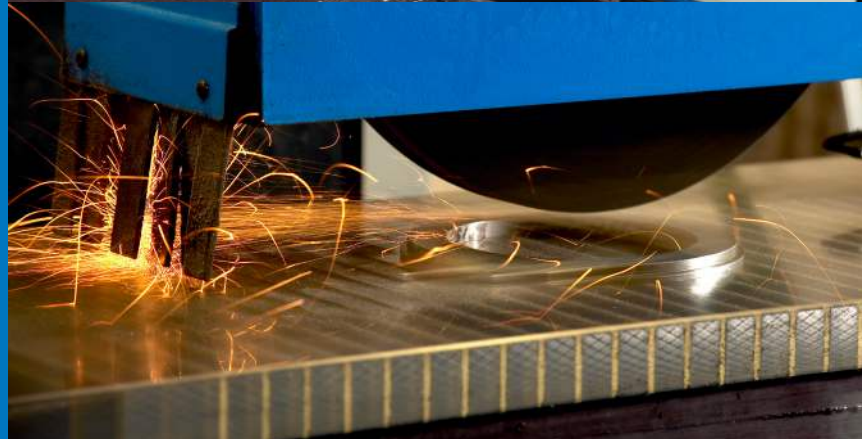
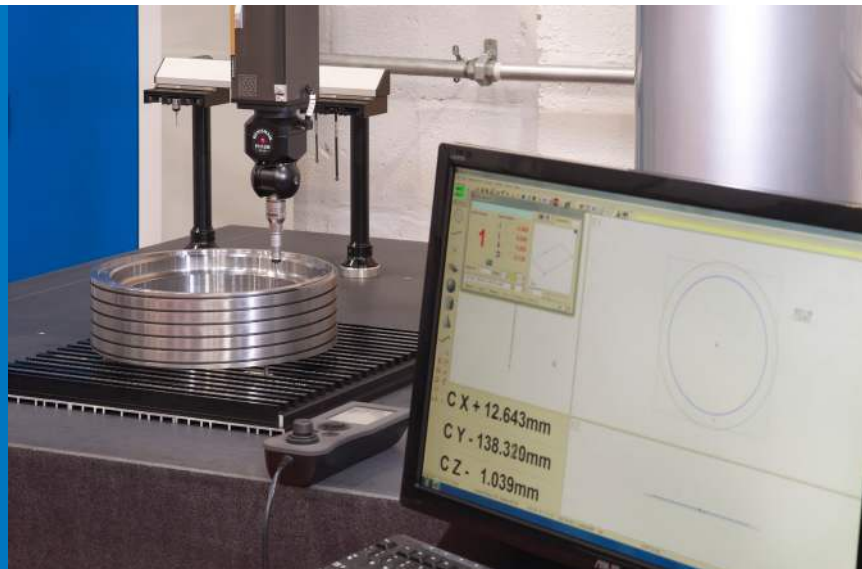
Klinger Precision are supporting Klinger UK's pre-existing and ever increasing demand for exotic alloy RTJ's for the offshore Oil and Gas Industries

PRODUCTS

- » BOP wellhead rings
- » Machined components from one-off bespoke products to multi-batch work
- » Tubesheets
- » Press tool design & manufacture
- » Baffle plates

CAPABILITIES

- » Wire erosion
- » Milling
- » Grinding
- » Turning
- » High precision measurement using latest CMM equipment



TECHNICAL SERVICES

Klinger is committed to providing the highest levels of technical support to all our customers. We offer practical advice and if necessary on site assistance to help the selection and fitting of our products. Klinger has a vastly experienced technical team with over 60 years technical service to the oil, gas and petrochemical industries.

Aside from dealing with day to day technical enquiries, Klinger's technical team can also assist in rationalisation programmes, problem solving with full joint modelling and failure mode analysis.

TRAINING

Using the FADU Klinger training aims to:

- » Increase best practise techniques and competency
- » Offer interactive, practical and tailored learning
- » Show real-time information on gasket compression, bolt stress and pre-load information



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