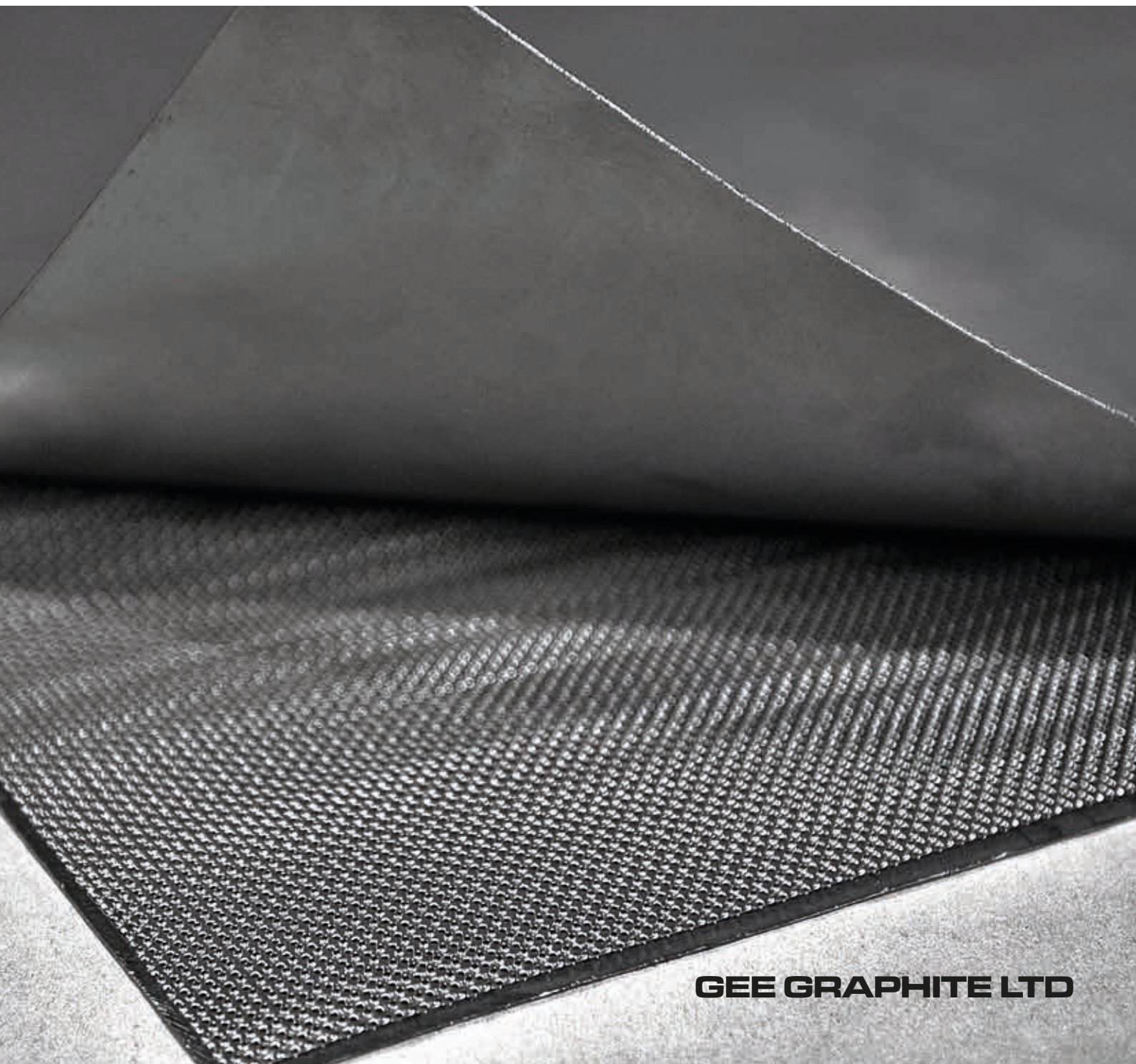




SHEETS & ROLLS

Offering a wide variety
of sheets & rolls



GEE GRAPHITE LTD

SHEETS & ROLLS

Gee Graphite offer a wide variety of sheets & rolls which can be branded, tanged, reinforced & adhesive backed. Supplying in full sheets or cut gaskets using our automated press or waterjet cutting machines, to our customers specific requirements.

What should you look for when selecting a gasket material?

- Pure Graphite
- Nickel Reinforced NR
- Stainless Steel Reinforced SSR
- Stainless Steel Tanged SST
- Polyurethane Reinforced Graphite
- Non Asbestos - Geenas
- PTFE
- Mica

What can we offer?

We can offer laminated sheets which is the layering of graphite with stainless steel or nickel using our unique high temperature adhesive system giving a 100% bond, this proven system enables the finished sheet to be converted into gaskets of any size with no delamination. Whilst our tanged material offers a mechanically bonded system with no adhesive offering our customers an alternative in our laminate range. We can also offer a branding service, a variety of sheet sizes and thicknesses to meet your requirements.

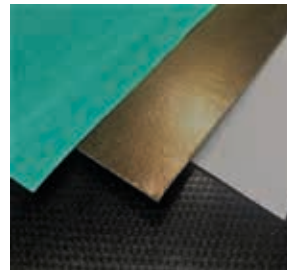
Using our unique in-house method, we can adhesive back our rolls and sheets this is particularly used when creating graphite tapes. When it comes to creating gaskets, on site we have our state-of-the-art water jet cutting machines which can provide you with precision cutting on our water only machines. The process has been modified to suit the production of gaskets and now the most intricate designs can be cut accurately with no tooling costs offering a clean safe, smooth edge finish. With the alternative cut method using an automatic press enabling us to cut a large number of gaskets in a short space of time.

Geegraf flexible graphite foil is sold in sheets & rolls

Geegraf pure graphite sheets & rolls provides a resilient and compressible sealing material, which exhibits excellent fluid sealing performance for critical high temperature applications. The foils are available in a wide range of grades, including ultra-high purity, oxidation resistant and corrosion inhibited grades.

We convert to the following products from our graphite:

- Tapes
- Gaskets
- Reinforced Sheets
- Die Formed Rings
- SWG
- Kammprofiles



GeeNas Non-Asbestos Sheeting

Our material contains a mixture of aramid and glass fibres with a nitrile rubber binder. It's an economical, general-purpose material for use in light to medium gasket stress applications. It exhibits good sealing and torque retention properties. Filling the spaces

between two or more mating surfaces, generally to prevent leakage from or into the joining objects while under compression.

Mica Sheets

The Mica sheet material is highly flexible thermal and electrical insulating material recommended for applications up to the highest temperatures using the most heat resistant phlogopite Mica. Completely free of asbestos or ceramic fibres.

PTFE Sheets

Available in a range of grades to suit various sealing applications, most commonly used is Virgin PTFE It has great electrical and thermal properties, which provides good chemical resistance and a non-corrosive construction. They also offer effective resistance to moisture absorption and have an extremely low coefficient of friction, making them a popular option as a seal in rotary or linear movement applications.

NR & Polyurethane Graphite Sheets

Our unique nickel reinforced graphite sheet contains two layers of graphite with a nickel foil core at a thickness of 0.026mm thick, we offer the complete process from selection of high purity graphite foil, laminating, curing and final inspection all carried out in house, by using our unique high temperature adhesive system giving a 100% bond we can convert the finished sheet in to gaskets with narrow land widths and/or complex geometry with no delamination.

SSR & SST Graphite Sheets

Our stainless steel reinforced graphite sheet material comprises of two outer layers of graphite with a stainless steel core 0.05mm. Our SST material comprises two outer layers of graphite foil with a central tanged stainless-steel core 0.1mm thick mechanically bonded therefore no need for adhesive. We offer the complete process from selection of high purity graphite foil, punching the stainless steel and compressing with force to form the sheet followed by final inspection all carried out in house.

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GRAPHITE DIVISION

Converting expanded flexible graphite into a wide range of gaskets, sealing products, foils, tapes and specialist sheets. We are able to offer Spiral wound gasket fillers slit in-house, alongside our reinforced graphite laminate sheets all to our customers own requirements.

With a history of solving application based problems from cryogenic to elevated temperatures and vacuum to high pressures. Gee Graphite continue to supply high quality products in a wide range of materials all around the world.

What does our Graphite Division offer?

Our graphite division offers a wide range of sheet materials in a variety of high purity foils and a wide range of laminates including nickel, stainless steel, tanged stainless steel and polyurethane. We produce flexible graphite gaskets, gaskets of other materials including rubber, cork, mica, non-asbestos fiber & paper, plain & corrugated tapes, die formed rings, braided packing, packing sets, spiral wound filler materials & gaskets along with other sealing solutions.

Our Geegraf products include:

- Braided packing
- Branded sheets
- Carbon fibre
- Die formed rings
- Foils
- Gaskets
- Kammprofile gaskets
- Laminated sheets
- Machined graphite
- Reinforced sheets
- Spiral wound gaskets & fillers
- Tapes



Priding ourselves on being at the cutting edge of technology we remain a leader in our chosen sectors. We offer customers innovative products and technologies to help achieve their ever changing needs developing new products to deal with increasing legislation on fugitive emissions and providing graphite solutions for tomorrows sealing applications. By developing our own in-house laminating system we have established methods of bonding graphite foils to a range of metal cores including Nickel and Stainless Steels. The laminated material is not only suitable for high temperature applications but does not delaminate during the die cutting or water jet cutting processes.

More information about some of our broad range of products:

Graphite Die Formed Rings

Geegraf die formed rings are produced from high purity homogenous flexible graphite with no binders or fillers and have outstanding chemical resistance. Some of our moulded rings are manufactured on site using our extensive range of tooling or to customers specific requirements, they can be supplied individually or in sets as a square section, chamfered, split in matching halves, rings can also be supplied with metal end caps and metal eyelets for high pressure anti extrusion applications.

Moulded rings/die formed rings have the ability to provide a leak-free seal for high performance valve applications, with their excellent chemical resistance and the ability to withstand most media in the oil and gas industry.



Braided Packing

Geegraf braided packing is manufactured from pure expanded graphite yarn and treated with corrosion inhibitors to aid long service. Graphite packing is fire safe and serviceable in temperatures of up to 450°C and is suitable for use in static, reciprocating, high pressure, high temperature valves in a wide range of industries.

Foils

Our Geegraf graphite foil is sold in sheets & rolls, providing a resilient and compressible sealing material. It exhibits excellent fluid sealing performance for critical high temperature applications.



Gaskets

Geegraf gaskets are manufactured using state of the art CNC punching and water jet cutting equipment. With the ability to layer when cutting materials giving us a possible yield 120 gaskets per cycle meaning we can offer short lead times if required. Inside bolt circle and full face gaskets supplied to all recognized international standards, non standards gaskets cut to customer drawings and specifications. The process has been modified over our years of experience to suit the production of gaskets with the added ability to reverse engineer. Now the most intricate designs can be cut accurately with no tooling costs offering a clean safe, smooth edge finish. Using our unique system we can offer dovetailing for larger diameter gaskets and adhesive backing for most materials.

Kammprofile Gaskets

The Kammprofile/Camprofile is a composite gasket which utilises a serrated metal core with soft facing material. The metal core is machined on each contact face with concentric serrations which provide high surface stress ensuring that the soft coating flows into imperfections in the flange even at relatively low bolt loads. The result is a gasket which combines the benefits of soft cut materials with the advantages of seal integrity associated with metallic gaskets. Expanded graphite is the most common facing material used for Kammprofiles. However other materials can be used, such as PTFE for chemically aggressive applications or mica for higher temperature applications. Main applications are steel flanges and steel vessels. Special purpose dimensions are available on request. These type of gaskets can also be manufactured from a range of core materials according to media compatibility and temperature considerations.

Tapes

Our graphite tapes are produced in house using the latest CNC controlled slitting equipment, this gives consistently accurate tape widths from 3mm upwards and minimum material wastage. Tapes are supplied either plain or corrugated and can be adhesive backed.

Spiral Wound Gaskets & Fillers

Spiral wound gaskets have the ability to recover under the action of fluctuating loads caused by process fluid pressure and temperature changes, flange face temperature variations, flange rotation, bolt stress relaxation and creep. The gasket-sealing element on the spiral wound gaskets consists of a pre-formed metallic winding strip with layers of a softer, more compressible sealing material which, during compression, is densified and flows to fill imperfections in the flange surfaces when the spiral wound gasket is seated. The metal strip holds the filler giving the spiral wound gasket mechanical resistance and resilience. SWG Fillers are produced in house using the latest CNC controlled slitting equipment, this gives consistently accurate tape widths from 3mm upwards and minimum material wastage and can be adhesive backed. We can offer the fillers in not only graphite but in PTFE & mica in various lengths and widths available upon request.



Machined Graphite

Whilst offering a variety of flexible graphite products we offer a full range of extruded and isostatic graphite machined parts to be used in various industries and applications including aluminium, electrochemical, nuclear, laboratory and medical technology.

We can supply graphite machined components manufactured from high quality extruded, isostatic or molded carbon/graphite grades. These can be from a plain graphite rod / plate to a fully machined part to your drawing.





GRAPHITE DIVISION

Offering an extensive range of
graphite based products



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GEE GRAPHITE LTD

GASKETS DIVISION

Gee Graphite are not new to gaskets, but we now have an additional division. Manufacturers of gaskets and sealing solutions. Converting expanded flexible graphite, PTFE, rubber, cork, mica and non-asbestos materials.

Geegraf gaskets are manufactured using state of the art CNC punching and water jet cutting equipment. With the ability to layer when cutting materials giving us a possible yield 120 gaskets per cycle meaning we can offer short lead times if required. Inside bolt circle and full face gaskets supplied to all recognized international standards, non standards gaskets cut to customer drawings and specifications.

The process has been modified over our years of experience to suit the production of gaskets with the added ability to reverse engineer. Now the most intricate designs can be cut accurately with no tooling costs offering a clean safe, smooth edge finish. Using our unique system we can offer dovetailing for larger diameter gaskets and adhesive backing for most materials.

What should you look for when selecting a gasket material?

Metal reinforcement: This provides strength and durability to maintain position in the face of the extreme conditions.

Heat-tolerant facing material: Facing material must withstand heat of exhaust without disintegration over the life of the seal. Materials behave differently over time, be sure to choose what is best for you.

Abrasion resistance: This might be a factor in joints with high thermal motion, such as joints of dissimilar metals that expand and contract at different rates. In these cases, often a clad-style material is chosen.

Low creep relaxation: Graphite products are a good example of a facing with low creep relaxation. This means it will not continue to lose thickness with the heat and time exposure, thus maintaining good flange loading to maintain the seal.



The vast array of gaskets Gee can offer:

Cork, Ceramic Paper, Paper & Rubber Gaskets

Our cork, paper & rubber gaskets offer a wide range of exceptional properties. With cork being cheap, flexible, lightweight and good for use when a high degree of compressibility is required. We can produce high quality paper gaskets to our customers specification requirements. Ceramic paper gaskets demonstrate excellent strength whilst being flexible, enabling them to withstand severe mechanical handling they are light in weight have excellent insulating properties.

Exhaust & Manifold Gaskets

The ideal characteristics of a gasket material used in the exhaust manifold is the heat tolerance and ability to withstand the temperature of the application without oxidizing, burning, or otherwise disintegrating. Offering a line of products for high-temperature applications. The gaskets should compress or conform to flange conditions and irregularities to make a good seal. The harsh environments of exhaust systems can present a challenge if you don't use acceptable gasket materials. Finding something to withstand the hot gases requires materials specifically designed to survive such conditions.

Gasket Materials

- | | |
|----------------------|-----------------|
| • Ceramic Paper | • Paper |
| • Cork | • PTFE |
| • Exhaust & Manifold | • Pure Graphite |
| • Mica | • Rubber |
| • Non Asbestos | • SSR Gasket |
| • NR Gasket | • SST Gasket |



GEENAS Non-Asbestos

GeeNAS our non-asbestos gasket jointing material contains a mixture of aramid and glass fibres with a nitrile rubber binder. It's an economical, general-purpose material for use in light to medium gasket stress applications. It exhibits good sealing and torque retention properties. Filling the spaces between two or more mating surfaces, generally to prevent leakage from or into the joining objects while under compression.

Kammprofile Gaskets

The Kammprofile/Camprofile is a composite gasket which utilises a serrated metal core with soft facing material. The metal core is machined on each contact face with concentric serrations which provide high surface stress ensuring that the soft coating flows into imperfections in the flange even at relatively low bolt loads. The result is a gasket which combines the benefits of soft cut materials with the advantages of seal integrity associated with metallic gaskets. Expanded graphite is the most common facing material used for Kammprofiles. However other materials can be used, such as PTFE for chemically aggressive applications or mica for higher temperature applications. Main applications are steel flanges and steel vessels. Special purpose dimensions are available on request. These type of gaskets can also be manufactured from a range of core materials according to media compatibility and temperature considerations.

Mica & PTFE Gaskets

MICA gaskets offer a wide range of exceptional properties. It is completely harmless and presents very high thermal and mechanical performances, allowing it to successfully replace asbestos gasket material in many applications. This very high temperature gasket sheeting material able to withstand such temperatures even in the presence of Oxygen.

PTFE gaskets work efficiently at both low and high temperatures, has excellent resistance to most mineral and organic chemicals such as acids, bases and solvents, a great choice for low bearing loads alongside high temperature sealing.

Pure Graphite, SST, SSR, NR Gaskets

We offer the complete process from selection of high purity graphite foil, punching the stainless steel and compressing with force to form the sheet followed by final inspection all carried out in house. Commonly used as gasket material in steam system applications, the oil and gas, petrochemical and chemical industries also as flange gaskets for piping and machinery.

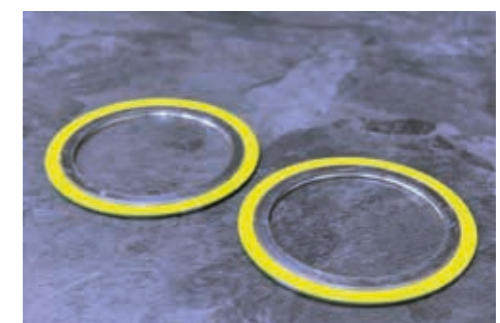
Our Geegraf stainless steel tanged material comprises two outer layers of graphite foil with a central tanged stainless-steel core 0.1mm thick mechanically bonded therefore no need for adhesive.

Our Geegraf stainless steel reinforced graphite sheet material comprises of two outer layers of graphite with a stainless steel core 0.05mm thick.

Our Geegraf unique nickel reinforced graphite sheet contains two layers of graphite with a nickel foil core at a thickness of 0.026mm thick.

Spiral Wound Gaskets

Spiral wound gaskets have the ability to recover under the action of fluctuating loads caused by process fluid pressure and temperature changes, flange face temperature variations, flange rotation, bolt stress relaxation and creep. The gasket-sealing element on the spiral wound gaskets consists of a pre-formed metallic winding strip with layers of a softer, more compressible sealing material which, during compression, is densified and flows to fill imperfections in the flange surfaces when the spiral wound gasket is seated. The metal strip holds the filler giving the spiral wound gasket mechanical resistance and resilience.





GASKETS DIVISION

Manufacturers of gaskets
& sealing solutions



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GEE GRAPHITE LTD



TOSV - GEE VALVE SEALS DIVISION

Manufacture and supply of double and triple offset butterfly valve seals



GEE GRAPHITE LTD

TOSV – GEE VALVE SEAL DIVISION

Gee Graphite's TOSV product range includes double/triple offset valve seals, solid metal seat, secondary metal seats and the AOC seal. Also offering a wide range of flexible graphite based products and services used particularly in gaskets, valves, process equipment and flanges.

Double/Triple Offset Butterfly Valve Seals & Solid Metal Seats

Gee Graphite have unrivalled experience in the manufacture and supply of double and triple offset butterfly valve seals. With our expertise in flexible graphite and precision waterjet cutting, we can assist valve designers in producing laminated valve seals to suit specific applications.

Materials include:

Flexible graphite, PTFE RPTFE, mica type and traditional gasket materials are all supplied as interlayer materials.

Both disc mounted or body mounted styles are supplied in sizes from 2" (50mm) to 60" (1500mm) with specials available up to sizes 118" (2950mm).

The critical technical requirements of the sealing face are fully understood and achieved through precision clamping and machining of the laminate.



Solid seals, disc/body seats and clamp rings are supplied fully machined to customer drawings.

Capability to machine both inner and outer sealing surfaces.

Secondary Metal Seats

The manufacturing process of the secondary metal seat is produced from "spun" metal giving a perfectly flat and scratch free surface regardless of diameter, and allows us to achieve a 0.15mm tolerance between the critical radii on the valve disc seals.

Precision waterjet cut and spun metal valve seats are supplied in various metals as shown in the material chart. These products are available in a full range of diameters from 2" (50mm) – 60" (1500mm).

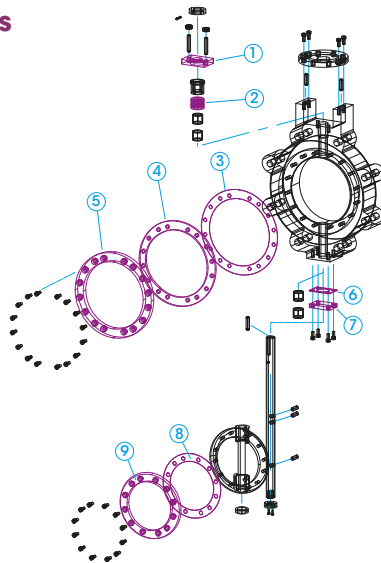
Material

304 Stainless Steel	Alloy 718
316 Stainless Steel	Alloy X750
347 Stainless Steel	Alloy 800
410 Stainless Steel	Hastelloy C276
630 Stainless Steel	Titanium Grade 2
Duplex 31803	Titanium Grade 5
Super Duplex 32750	Nitronic 50
Super Duplex 32760	Nitronic 60
Alloy 400	Zirconium
Alloy 625	

- Laminated or Solid
- Body or Disc Mounted
- Graphite Layer
- Soft Cut Layer
- PTFE Layer
- Mica Layer
- Combination Graphite & PTFE



Butterfly Valve Seals



Key

1. Gland Plate
2. Gland Packing
3. Body Seat Gasket
4. Body Seat
5. Body Seat Retaining Ring
6. End Cover Gasket
7. End Cover
8. Disc Seal Gasket
9. Disc Seal

All items listed are supplied by Gee Graphite Ltd

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WATERJET CUTTING

Waterjet Cutting is a division of Gee Graphite Ltd, the company founded in 1989 to offer a range of industrial gasket and sealing products based on expanded flexible graphite. It was through the difficulties posed in cutting composite graphite materials that a more radical and innovative approach had to be considered. This led to the installation in 1991 of the UK's first Water jet cutting system. Gee Graphite realised the capabilities and potential of water jet cutting and so a separate division offering customers a sub-contract service was set up.

Since then the waterjet cutting division has grown substantially and now operates from a 62,000 Sq.ft site in West Yorkshire offering both pure water & abrasive waterjet cutting from various machines both single and multi-head configuration.

With a total of 8 waterjet cutting machines and a combined total of 41 cutting heads, we have capacity to meet our bespoke customer demands. With all the various configurations, we are in a strong position to select the optimum bed size and head configuration for a particular job. With so many waterjet cutting machines available to us, we are in the fortunate position to always attain to meet our customer's demands.

There are two options to our processes:

Pure Water - Waterjet Cutting

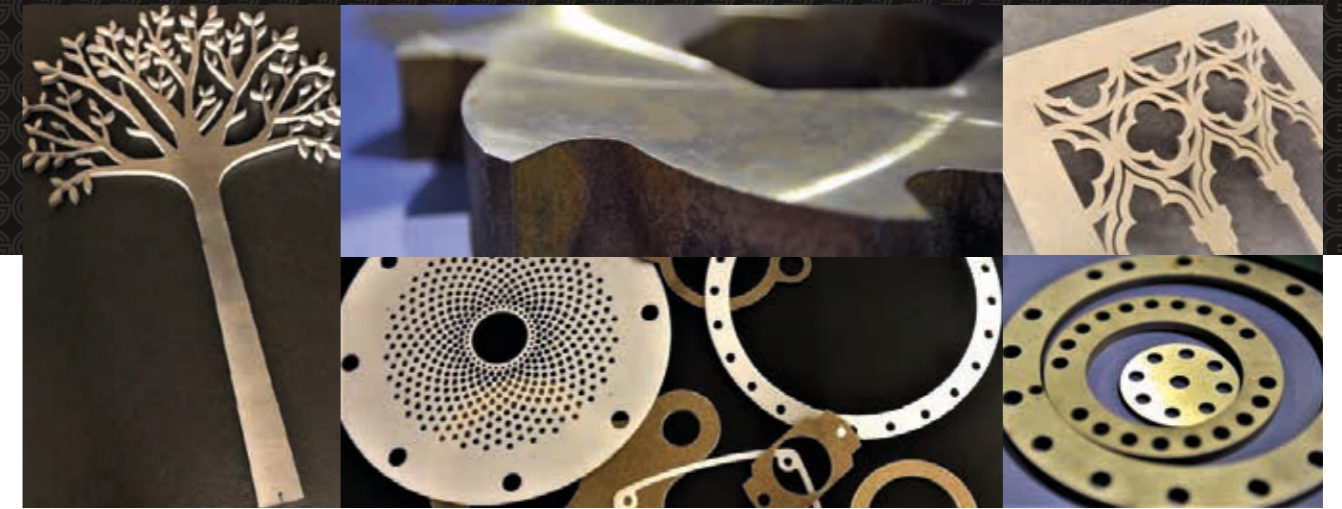
Pressurising water to 60,000 psi (3,600 bar) then projecting it through an orifice. This creates a significant amount of energy concentrated in a narrow jet of water, travelling at close to the speed of sound. The result is an extremely powerful and a precise pure waterjet cutting tool coming from our 4 pure water machines.



Abrasive - Waterjet Cutting

The abrasive system employs the same methods as pure water however with an addition of an abrasive garnet mixed into the stream increases the cutting force significantly. When the high-velocity water exits the orifice it creates a vacuum within the mixing chamber. The vacuum pulls abrasive from the abrasive line into the chamber where it is mixed with the water jet cutting stream. The resulting mixture is then realigned in a focusing tube before exiting the cutting head nozzle. At this point the accelerated abrasive particles are now travelling at speeds fast enough to cut through the hardest of materials, all this is achieved by a waterjet that is little more than 0.8mm in diameter. Our 4 abrasive machines have a range in bed size and number of cutting heads. Our largest machines are 6000mm by 3000mm and 4000mm by 2000mm, with each incorporating four cutting heads. In addition, two of our water jet cutting machines are equipped with drilling facilities to aid cutting some of the more fragile laminate materials.

ADVANTAGES OF WATERJET CUTTING



No heat affected zone (HAZ)

One of the biggest advantages is that water jet is a cold cutting technology. This allows materials to be cut that would otherwise be burned, melted or cracked by other cutting methods. It also guarantees that no structural or metallurgical changes occur to the materials being processed.

Environmentally friendly

The process is clean and does not create dust, fumes or hazardous gases. Cutting oils or coolants are not required.

Narrow kerf

The amount of material removed by the waterjet stream is typically 0.5-1.0 mm wide, meaning that very little material is removed. When working with expensive material (titanium, inconel, monel etc..) or hazardous material (such as lead), water jets small kerf, or cut width optimizes material use.

Nesting

With state-of-the-art CAD software combined with our multi cutting head machinery we have the ability to cut hundreds of different parts together in one nest. This gives us the ability to significantly reduce the amount of material required, whilst at the same time reducing the component processing time.

Setup

All our programming is carried out offline in a designated CAD office. This allows a quick and relatively easy set up at the machine.

Large components

Water Jet Cutting can meet the demands of most customer enquiries and cut the largest of profiles. With a maximum cutting bed size of 6000mm by 3000mm and an overhead crane with a 9 tonne lifting capacity, there are few components we cannot accommodate.

Other advantages of waterjet cutting

- High Cutting Speeds Many Commonly Used Materials
- Minimal Fixturing Required
- High Repeat Accuracy
- No Crushing of Material
- No Tool Sharpening
- Just-in-time Manufacturing Ability
- Eliminates Post Machining in Most Cases
- Rapid Prototyping
- One-Off To Volume Production

Cutting from metal & non-metal materials, but not limited to:

Aluminium, brass, bronze, copper, lead, carbon steel, nickel alloys, stainless steel, titanium, carbon fibre, ceramics, cork, flooring, foam, glass, granite, graphite, laminates, plastics, PTFE, rubber, tufnol and wood.

Water Only

Machine	L(mm)	W(mm)	Cutting Heads	Pressure (bar)
Axon	3000	1500	6	3600
Bobjet	3000	1500	6	3600
Flowtech	3000	1500	6	3600
WJ Sweden	3000	1500	12	3600

Abrasive

Machine	L(mm)	W(mm)	Cutting Heads	Pressure (bar)
6030	6000	3000	4+2	3600
4000Q	4000	2000	4+0	3600
Byjet	3000	1500	1+1	3600
Wardjet	3000	1500	2+2	3600

Additional Machine Processes

- Bending
- Counterboring
- Countersinking
- Drilling & Tapping
- Milling

Surface Finishing

- Anodising
- Chemical Blacking
- Electroplating
- Metal Polishing
- Shot Blasting





WATERJET CUTTING DIVISION

Bespoke, precision cutting on our pure water
and abrasive water machines



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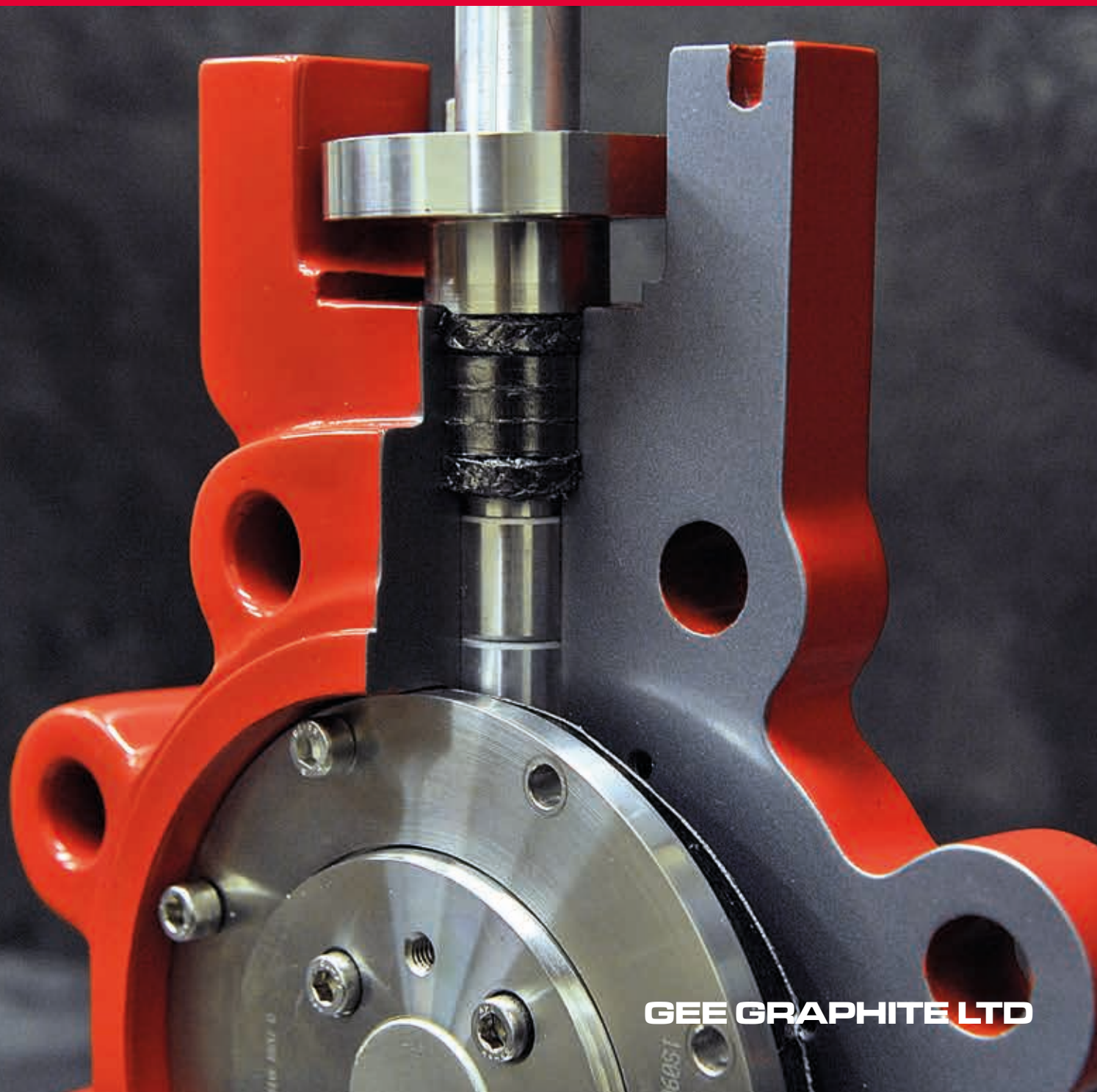


GEE GRAPHITE LTD



ENERGISED DIVISION

Offering a full range of products designed to
eliminate costly plant leakage problems



GEE GRAPHITE LTD

ENERGISED DIVISION

The Geegraf Energised System is a full range of products designed to eliminate costly plant leakage problems. Each component in the Energised System is the result of our commitment, passion and enthusiasm to produce the most effective products for industry.

Our experience, combined with the use of only the best available materials and production methods, brings the following benefits:

- Minimum leakage – Drastically cutting maintenance costs
- Elimination of on-line leak sealing
- Automatic gland adjustment – Maintains packing pressure
- Reduction in valve stem pitting – due to corrosion inhibitors
- Improved plant efficiency
- Maximum packing life – Using calculated torque settings



Geegraf Energised Safety Drop Mat

Our safety drop mat is ideal for working on Kennedy grating to prevent hazardous dropping of tools and equipment when working at height in power stations, chemical plants etc.

The durable plastic netting with bound edges c/w brass eyelets folds into a convenient size with Velcro straps suitable for carrying in tool bags.



Geegraf GDS – Gland disc springs

Computer designed disc springs automatically adjust the gland to maintain a constant optimum sealing pressure on the packing set. Prevents leakage due to wear, vibration, consolidation and thermal cycling.

Geegraf Flange Disc Spring

Maintains clamping force under all conditions

The single disc solution to leakage which brings you these benefits:

- A constant, uniform clamping force
- Compensation for thermal expansion and contraction
- The dampening of vibrational shock
- The prevention of gasket blowouts and reaction to pressure surges



Geegraf ER - End Rings

Anti-extrusion ring manufactured from high purity yarn. Having no fillers or binders it withstands high temperatures in non-oxidising atmospheres with no apparent volume loss. Commonly known as braided packing, this can be supplied with or without Inconel reinforcement. This product is strong and durable mostly used as packing in valves can be

supplied in various lengths and cross sections, we also have the ability to press creating a formed ring with either scarf cut or butt cut for use in valve stems.

Geegraf DFR die formed rings

Inhibited graphite rings are a high purity, low friction, self-lubricating ring manufactured from pure graphite tape. To provide improved sealing performance DFR are engineered to an accurate specific density for compression resistance, elasticity and retention of shape and size, resulting in exceptional sealing performance.

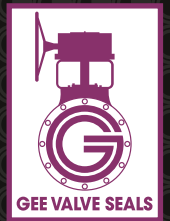
Geegraf SCS – Split carbon sleeves

To allow the use of the optimum ring packing set, a high purity split carbon sleeve is used as a spacer in the bottom of the stuffing box.

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AOC SEAL

ANTI OVER-COMPRESSSION SEAL

Gee Graphite are pleased to have released to market the AOC Seal



GEE GRAPHITE LTD

AOC SEAL

The AOC Seal is an evolution of the traditional laminated seal for double and triple offset butterfly valves with one major difference. The AOC Seal eliminates the possibility of over compression, which can cause a collapse or distortion of the sealing ring.

As with the standard TOSV Seals, the AOC Seal can be supplied for both disc mounted or body mounted styles of valves and are supplied in sizes 2" (50mm) to 60" (1500mm) with specials available up to sizes 118" (2950mm).

How does it work?

The new designed sealing ring prevents the over-compression of the seal stack during clamping for machining. This is undertaken by inserting a Spacer Ring on the gasket layer, which directs the gasket layer directly into the Sealing face of the seal. (Conical Profile)

Like the Standard TOSV seal supplied by Gee Graphite Ltd, the AOC Seal is suitable for use in the following conditions:

- Cryogenic
- Gases
- Liquid
- Oil and Gas
- Steam

Benefits of the AOC Seal:

- Elimination of the possibility of over compressing the seal.
- Under compression, the Gasket material is directed solely into the conical profile.
- Less torque required to bolt down the seal.
- Zero leakage bi-directional.



Materials

Like the Standard Laminated Seals supplied by Gee Graphite Ltd, the AOC Seal will be supplied in various grades of metallic layers and gasket layers depending upon customer requirements.

Typically, utilized materials are as follows, but not limited to:

Metallic Layers

Stainless Steels (304 / 316L)

Duplex S31803

Super Duplex S32750 / S32760

INCONEL 625 / X750

Hastelloy C276

Titanium (Grade 2 / 5 AND 7)

Monel (K400 / K500)

Nitronic 50

Nitronic 60

UK PATENT# 1802537.9

Gasket Layers

Graphite

Virgin PTFE

RPTFE (25%)

MICA Type Materials

Fibre based Gasket Materials

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