Founded in 2001, Masterpac-Asia Co., Ltd. developed countless products including spiral wound gaskets, camprofile gaskets, double jacketed gaskets, RTJ gaskets, sheet & jointing materials, elastomer seals, dynamic and static packings, expansion joints, isolation gasket kits, insulating textiles, and technical products to ensure safety, security, health and environment and to improve plant efficiency at the bottom line.

In addition to a wide range of products, we also deliver pump & valve maintenance services and world-class technical support, offer problem-solving solutions, design recommendations and engineering backup during shutdown or turnaround periods. This range of services, supported by our experienced team of engineers and technicians, ensures that the supply of gaskets or repaired pump & valve are trouble-free. Moreover, a gasket and sealing training program known as “Masterpac Gasket University” is also available for customers upon request.
PARTNERS

Masterpac-Asia is a partner of a worldwide gasket manufacturer, FLEXITALLIC, Flexitallic’s Licensee Program designed to extend Flexitallic’s manufacturing capability. Moreover, Masterpac-Asia is supported by a worldwide leader in expanded PTFE solutions, GORE and expanded graphite specialist, SGL to increase the level of service and technical support to end users. Masterpac-Asia adheres to Flexitallic, GORE and SGL engineering standards that include raw material sourcing, manufacturing processes and quality control.

OUR COMMITMENT TO QUALITY

At Masterpac, we place great emphasis on maintaining both Thailand and international standards to ensure that highest quality products and services are achieved. We pride ourselves on supporting customers with a detailed understanding of our customers so that our products and services are tailored to specific needs. Drawing on the vast manufacturing capabilities within Masterpac, we are able to offer a wide range of high quality sealing products as well as first class technical support and advice.

ISO/OHSAS
All products manufactured by Masterpac are certified to ISO14001:2004, ISO9001:2008, OHSAS18001:2007, TIS18001-2554 and environmentally friendly. We strive to continuously improve our manufacturing processes, invest in high-quality machineries and technologies which minimize the usage of resources and create a safe environment not only for our employees but also everyone.

Prime Minister’s Export Award 2015:
Best Green Innovation
The Prime Minister’s Export Award or PM Award was initiated in 1992 by the Ministry of Commerce, Royal Thai Government as the highest official tribute to the country’s foremost exporters. The award scheme is driven by a long-term vision to strengthen the Thai economy by promoting positive and beneficial relationship in trade.

TCC BEST Award 2015
Since 2003, the Thai Chamber of Commerce presents a reward called Business Ethics Standard Test Award to company who conducts business with responsibility, transparency and fairness, adhering to principles it has long practiced. Masterpac’s corporate governance is considered an integral part of its business policy.

Thailand Trusted Quality
Thailand Trusted Mark (TTM) is a symbol endorsed by the Department of International Trade Promotion of the Royal Thai Government for selected high-quality products from Thailand. Masterpac is proud to be a company certified with TTM. The customers can be assured of value and quality by choosing Masterpac-Asia’s products and services.
Green Industry
The Thai Ministry of Industry launched the project of “Green Industry” in 2011 in order to encourage the industries in the Country to be more environmentally friendly, and more responsible to the society. This will help to make a good and reliable image of the industrial sector and gain people’s trust and build green economy which will increase green GDP.
OUR SERVICES
24/7

Masterpac products are supported by a range of services which are designed to offer complete solutions to our value customers. This service offering ensures that we are able to develop innovative solutions for the world toughest sealing challenges, meet the requirements for rapid response during plant shutdowns and provide the necessary knowledge and competence to fit our products safely.

TECHNICAL SUPPORT
Ranging from problem solving, on-site measurement and to product redesign, our Application Engineering, Production Engineering, R&D and QC teams work closely together to design, develop and select the best products and services to meet the challenges faced by each industry. Our experienced teams have a wide range of expertise in different industries and applications which will enable our customers to significantly reduce operating costs, increase reliability and realize years of trouble-free service.

SHUTDOWN SUPPORT
During shutdown periods, time is the most valuable commodity, making good planning a must. To this end Masterpac offers a complete shutdown support service supported by our experienced team of engineers and technicians. Before each maintenance period, our engineers will visit customer plant to understand work scope and will co-ordinate gasket redesign activity to make detailed measurements of all equipments. This invaluable resource can be utilized to tailor gasket designs to fit the requirement of any equipment and enables gasket production prior to commencement of all shutdowns.

GASKET UNIVERSITY
For many years, Masterpac has offered knowledge sharing program known as “Gasket University.” This program brings the most updated information in sealing technology to our customers throughout Kingdom of Thailand and ASEAN countries. This training program has been designed for everyone ranging from mechanical fitters, graduate engineers, to buyers to share our knowledge on gasket and sealing technology.

Examples of Areas of Knowledge Shared
- Principles of joint component sealing action
- Gasket functions or seal types
  - Metallic gasket
  - Semi-Metallic gasket
  - Non-Metallic gasket
  - Pump & valve packing
- Gasket selection
- Basic bolting techniques
- Basic gasket installation techniques
- Assessment and certification
**PUMP & VALVE MAINTENANCE SERVICES**

“Our MPAC Pump & Valve success story began in 2010”
Masterpac-Asia has been a major manufacturer and supplier of flow and sealing products for demanding applications throughout various industries. Masterpac-Asia began its operation in 2001 by being a provider of premium-quality gaskets. Our move into pump & valve maintenance services named “MPAC Pump & Valve” was another step taken by Masterpac-Asia to cut emissions and make Thailand a cleaner place to live in. Customers who have come to know MPAC Pump & Valve, understand that Masterpac-Asia is able to deal at any exceptional standard with all their pump & valve-related issues and projects.

“Any Job, no matter how complex or how large”
Refurbishing pumps or valves is the essence of MPAC Pump & Valve. By having our own in-house equipments and blasting units, we are specialists in the overhaul of control valves and the refurbishment of hand valves, safety valves and every other type of industrial valves you can think of.

“Technology is an integral part of our success”
Our valve testing and valve repair are done by a state-of-the-art testing machine which is the only one of its type in Thailand. Having twin test beds, it has a capacity to test any type of valves up to 400 NB (16”) valve gives a PLC report on the test showing pressure curves and crack pressure information in the case of safety valves. For Lapping System, MPAC Pump & Valve employs the V-TEC system with a range from 1½” – 40”, such range has the capacity to cover most valves in any industry.

“24/7 immediate breakdown service”
Moreover, MPAC Pump & Valve offers a 24/7 breakdown service to immediately attend to the unexpected event, especially when a valve failure results in production loss. Our experienced pump & valve engineers and technicians will arrive fast and fully equipped with the latest technology tools to quickly analyze the problem and prescribe the solution.

“Expertise in shutdowns and turnarounds”
Participation in planned shutdowns and turnarounds is another key aspect of MPAC Pump & Valve’s business for which we are widely known and respected. We offer a comprehensive package of on-site services to ensure efficient, reliable plant operations. This service embraces emergency repair, maintenance and installation of new plant and equipment.

“Truly one stop service for valve repair”
MPAC Pump & Valve is supported by Masterpac-Asia, the leader in sealing technology. Access to world-class maintenance equipments and materials allows MPAC Pump & Valve to be a true one-stop shop and to choose the most suitable sealing products for each application to meet the timeline. MPAC Pump & Valve is also able to provide additional service, by having epoxy coatings available for both the interior and exterior of the pumps and valves in order to increase the longevity of the components in service.
SPECIAL RAW MATERIALS

At Masterpac, we always look for the best raw material around the globe in order to fulfill customer needs. THERMICULITE®, GORE® Expanded PTFE, and SIGRAFLEX® Expanded Graphite have rich histories of innovations and are world leaders in producing novel products. These special materials are subjected to a wide range of tests, regulations and customer requirements. These detailed information from various tests enable our customers to make informed decisions on the suitability of each product for each application.

FLEXITALLIC THERMICULITE®

THERMICULITE® is specified by name in critical sealings. Applications include Petro chemicals, Fertilizers, OEM and Oil & Gas applications, in which process conditions are extreme. Our experienced engineers, make use of the versatility of THERMICULITE® 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® is a patented product with amazing versatility. Not only can it withstand high temperatures and corrosive environments, due to unique formulation, Masterpac is able to offer THERMICULITE® as a stand-alone sheet material, as a filler for SWG’s, as a facing for Camprofiles and also as material in any other form.

Benefits:
- Engineered and manufactured in the UK
- Completely free from oxidation
- Fire-safe API 607
- TA Luft approved
- Wide temperature range from cryogenics up to 1000°C
Our SIGRAFLEX® products made of expanded flexible graphite have proven their long-term reliability under extreme operating conditions over the course of many years. Therefore, leading companies in chemical and petrochemical industry, in pulp and paper industries as well as power plant operators rely on the superior quality of our sealing products and utilize them successfully. SIGRAFLEX® is resistant to most chemical media and sets itself apart from other asbestos substitutes thanks to the long-term stability of its sealing properties – even at temperatures of up to approximately 550°C.

SIGRAFLEX® flexible graphite foil, as a standalone sheet material or as a filler for SWG’s, is the first choice for sealing applications for long-term use at high temperature. SIGRAFLEX® APX2 foil, as a facing for Camprofiles, oxidizes much more slowly than comparable products, even at 593°C, significantly extending gasket service life. It also increases process reliability and reduces costs on the long term.

Benefits :
- Low permeability to gases and liquids
- TA Luft approved
- Resistance to most media
- Wide temperature range up to 800°C (inert atmosphere) or 400°C (air)
- Absence of binders means no ageing or embrittlement

GORE® gaskets are designed to meet the many needs of process piping materials, making them ideal for lowering total sealing system costs. They solve special sealing problems. In addition, they can be used as standardized gaskets across steel, glass-lined and fiber-reinforced plastic (FRP) systems where non-metallic gaskets are required. GORE® gasketing and GORE® sealant products ranging from flat sheets to thin tape and form-in-place sealants - are available for fitting flanges of any size or configuration.

Benefits :
- Made from 100% expanded PTFE (ePTFE)
- High chemical and thermal resistance
- Resistance to ageing
- Greater blow-out resistance
- Highly conformable to sealing surface
OUR PRODUCTS

SEMI-METALLIC & METALLIC GASKETS

SPIRAL WOUND GASKETS
Through precision engineering, the Spiral Wound Gasket (SWG), available in unlimited configurations of high quality metals and materials, is tailored to meet the demand of each individual application. With its unique flexibility and ability to adapt to and recover from the effects of pressure and temperature fluctuations, bolt stress relaxation and creep, Masterpac’s unique SWG provides a superior sealing solution. SWG is manufactured by alternately winding strips of metal and soft fillers on the outer edge of winding mandrels that determine the inside dimensions of the wound component. In the winding process, the alternating plies are maintained under pressure. By varying the pressure and/or the thickness of the soft filler during the winding operation, the density of the gasket can be controlled over a wide range.

Benefits :
• Significant stock volume of standard gaskets
• Custom designs available
• 24/7 manufacturing capability for special requirements
• Thermiculite® and Sigraflex® technology for high temperature application

CAMPROFILE GASKETS
Camprofile gasket is the ideal product choice for standard pipeline and heat exchanger applications. It consists of a metal sealing core with or without guide ring. The sealing core is a solid metal gasket with concentric serrations on both sealing surfaces. Depending on its intended operating condition, the core may be also lined with soft material such as flexible graphite, ePTFE, Thermiculite®, or Sigraflex® APX2. The high compressibility of the lining and the limited penetration at the joint surface between adjacent gaskets enhance their contact and interaction. In brief, camprofile gasket has three key features: the compressibility of a sheet gasket; the tight sealing property of SWG; and the ease of handling of a solid metal gasket.

Benefits :
• Wide range of metal and facing materials
• Availability of very large diameter gaskets
• Resistance to ageing
• Thermiculite® and Sigraflex® APX2 technology for high temperature application
● **METAL JACKETED GASKETS**

Masterpac metal jacketed gaskets are normally supplied with a graphite filler. The metal provides the strength and the resilience of the gasket while the filler provides the conformable sealing material. These gaskets are suitable for low and high pressure and temperature applications with a wide range of materials available. Double jacketed gaskets are most commonly type which mainly used in boiler and heat exchanger applications. They are also used in standard flanges where the service is not critical and at temperatures beyond which a soft gasket can be used. Since most double jacketed gaskets are custom made, there is virtually no limit to the size, shape or configuration in which these gaskets can be made.

**Benefits :**
- Can be produced in any configuration
- No size limit
- Custom designs available
- Wide range of metal and filler materials

● **RING TYPE JOINT GASKETS**

Ring Type Joint (RTJ) gaskets were initially developed for use in the upstream business and are also commonly used in valve and pipe-work assemblies and in high-integrity pressure vessels. Every RTJ that leaves Masterpac’s factory has been checked though the use of Positive Material Identification (PMI) technology to ensure that Masterpac has complete product traceability. Masterpac’s RTJ gaskets come in four basic types, Oval cross section, Octagonal cross section, RX and BX design. The hardness of the ring should always be less than the hardness of the flanges to prevent flange deformation while dimensions for standard RTJ gaskets and grooves are covered in API 6A and API 17D.

**Benefits :**
- API 6A and API 17D approvals
- Specialized coatings including xylan, silver and zinc are available
- Support by Application Engineers
- Custom designs and special requirements are available
SOFT GASKETS

MASTERPAC MP 4430

MP 4430 is a high-quality compressed sheet material manufactured by the hot calendaring process using high-quality non-asbestos fibers and oil-resistant synthetic rubber. MP 4430 is the best-selling compressed sheet at Masterpac and is suitable for use in a wide range of applications, including hot and cold water, steam, oils, fuels, gases, and a wide range of general chemicals. We have MP 4430 of different thicknesses ranging from 0.5mm to 6mm available on shelves and are ready for dispatch.

Benefits:
- Wide range of service applications
- Anti-stick coating
- Available as sheet or cut gasket
- Standard sheet dimension up to 1.5m x 3.0m

MASTERPAC GRAPHITE RANGE

Flexible graphite has outstanding resistance to corrosion against a wide variety of acids, alkalis, salt solutions, organic compounds, and heat transfer fluids even at high temperature. Our graphite products are manufactured from minimum-98%-purity exfoliated graphite. They are available in different thicknesses and in different forms including pure graphite sheet, graphite foil, flexible graphite sheet reinforced with tanged stainless steel, self-adhesive graphite tape, and bonnet graphite ring. These graphite products meet refinery, petrochemical, and industrial service requirements.

Benefits:
- Resistant to thermal shock
- Excellent stress retention
- Wide temperature range up to 800°C (inert atmosphere) or 400°C (air)
- Available in different forms and thicknesses
SOFT GASKETS

- **MASTERPAC VIRGIN PTFE RANGE**

Polytetrafluoroethylene (PTFE) is probably the most widely used plastic class in sealing technology. The material has virtually universal chemical resistance, a very low coefficient of friction and excellent dry running properties. It is widely used in the process industry applications such as packing, food, pharmaceutical and medical applications, that require uses of chemically resistant gaskets. At Masterpac, PTFE products are available in many forms and sizes, including 100% virgin PTFE Sheet, expanded PTFE sheet, PTFE packing, PTFE rod, PTFE tube, PTFE envelope, PTFE seat ball valve, Pacseal joint sealant and Pac-Ion.

**Benefits:**
- Made from 100% virgin PTFE
- Resistant to most media
- Recommend for food and pharmaceutical applications
- Available as sheet or cut gasket

- **FLEXITALLIC NOVUS SHEET JOINTING**

The Flexitallic Novus range of compressed fiber jointing is designed for a wide range of industrial and unique applications in which sealing performance and specification are essential. The jointing materials range from carbon fiber, aramid fiber, to graphite etc. These jointings can be supplied as sheets in standard dimension 1.5m x 2.0m of different thicknesses, or as cut gaskets in either standard or non-standard dimensions.

**Benefits:**
- Engineered and manufactured in the UK
- Wide range of service applications
- Good bolt torque retention
- Reliable for general chemical services
FLEXITALLIC UNIFLON™
Sheet Jointing

Made with a unique manufacturing process exclusive to Flexitallic, UNIFLON™ represents a comprehensive range of modified sealing products designed for applications in which chemical resistance is of paramount importance or food-grade level of safety is a requirement. It is the latest generation of filled biaxially oriented PTFE sealing materials which combined properties of high chemical resistance and excellent sealing performance. This material is available in various grades including hollow glass microspheres (blue colour), silica-filled (pink colour), and barium sulfate filled (whitish colour).

Benefits:
- Engineered and manufactured in the UK
- High level of chemical resistance
- Extremely low gas permeability
- Conforms with FDA regulations

GORE® ePTFE

GORE® expanded PTFE (ePTFE) provides the benefits of PTFE gasketing without the problems of creep and cold flow. Unmatched in sealing reliability, GORE® ePTFE provides sealing superior to any other PTFE sheet gaskets in terms resistance to high-temperature and blowout. This product is made from 100% expanded PTFE. Because it is dimensionally stable, yet conformable, it is ideal for real-world flange conditions. It conforms to rough surfaces, yet can be compressed into a very tough gasket that makes a tight and long lasting seal. GORE® GR Sheet Gasketing is ideal for sealing steel flanges for applications in chemically aggressive environments.

Benefits:
- High level of chemical resistance
- Great blowout resistance
- Highly conformable to the sealing surface
- Available in different forms i.e. sheet, joint sealant, or tape
SIGRAFLEX® GRAPHITE

For many decades, Masterpac’s gaskets made from SIGRAFLEX® flexible graphite have demonstrated their outstanding sealing properties and reliability under actual operating conditions. Therefore, leading companies in the chemical, oil & gas, petrochemical and pulp & paper industries as well as power plants rely on the superior quality of Masterpac’s SIGRAFLEX® sealing products. The material is resistant to most chemical media and by having long-term stable sealing properties from cryogenic to high temperatures, differs from many other asbestos substitutes. Masterpac’s SGL Carbon sealing products include SIGRAFLEX® graphite foils & laminated sheets, SIGRAFLEX® TA Luft Sheets and SIGRAFLEX® APX 2.

Benefits :
- Low permeability to gases and liquids
- TA Luft approved
- Resistance to most media
- Temperature ranging from -250 to 400°C

ELASTOMER SEALS

An Elastomer is a polymer with elasticity as one of its physical properties. Elastomer is a term derived from elastic polymer, which is often used interchangeably with the term rubber. Masterpac provides a complete range of rubber sheets including, natural rubber, NBR, EPDM, Neoprene, Silicone and Viton to meet specific need of each industrial application. Moreover, cloth-inserted material is also available at Masterpac. Such material is designed for enhanced stability in applications which require mechanical fastening and for reduction of gasket creep in applications which require heavy flange loading.

Benefits :
- Large stock for immediate delivery
- Available as food-grade rubber
- Available as roll or cut gasket
- Custom thickness and design are available
COMPRESSION PACKINGS
Masterpac can provide several compression-packing materials of different styles and sealing properties upon request to suit a wide range of operating conditions. Ranging from PTFE packing, Graphite packing, Carbon packing, Kevlar packing, Ramie packing, GORE® GFO® to Thermiculite® packing, our advanced packing materials provide benefits such as substantial water reduction, superior leakage and emissions control, ability to operate at high pressures and speeds, resistance to chemical processes and reduction of sleeve and stem scoring.

Benefits:
• Large stock for immediate delivery
• Available as standard box weighed 5.5 Pounds or 11 Pounds
• Custom continued length is available
• Thermiculite® and GORE® GFO® technology for high temperature application

ISOLATION KITS
With premium-quality gaskets, Masterpac provides a complete product suite to limit corrosion in pipeline systems. The isolation sets are designed to electrically isolate flanges and bolts or any other metals in cathodically protected piping systems. Available for flat face, raised face and ring type-joint flanges, isolation gasket is an engineered value-added solution for trouble-free operation.

Benefits:
• Available as individual gaskets and full isolation set
• Can be used on all type of flanges
• Used for both cathodic and galvanic corrosion
• Wide range of service applications
INSULATING TEXTILES

Masterpac has two different types of textiles, fiberglass and ceramic. Both serve a number of purposes but the most important application is insulation which serves to control temperature in industrial operations. Fiberglass/ceramic insulation is a cost-effective, energy-saving product that helps businesses lower utility bills. In addition to helping companies avoid the need to produce additional energy required for heating and cooling equipments, fiberglass/ceramic insulation is an environmentally friendly product that helps reduce pollution emissions.

Benefits:
- Energy and cost saving
- Available in different forms i.e. cloth, tape, rope, blanket
- Temperature range up to 1260°C
- Wide range of applications

SSHE SPECIALTIES

It is Masterpac’s core principle to be a sustainable business by paying serious attention to safety, security, health and especially environmental (SSHE) concerns and using efficient and environmentally friendly production processes. Masterpac also strives towards a safer, cleaner and greener environment by offering SSHE products ranging from fire blanket, cleaning foam pig, rapp-it, fire escape hood, to absorbent pad.

Benefits:
- Convenient and easy to use
- Cost effective
- Environmentally friendly
- Wide range of applications