



KAEFER

When it counts, count on us.

CAPABILITY STATEMENT

Asia-Pacific Region

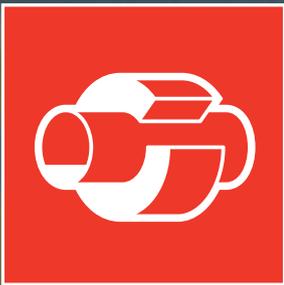


Who We Are

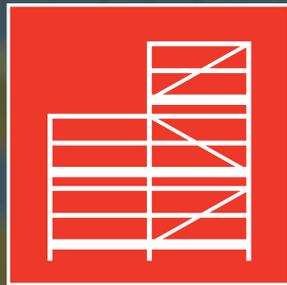
KAEFER has an established and widespread presence in the Asia-Pacific, operating for over 50 years in the region with registered offices in Australia, Indonesia, Singapore, Malaysia, Thailand, South Korea, Vietnam, Taiwan, Hong Kong and China.

We are a leading provider of turnkey construction, maintenance and industrial services. We specialise in the delivery of insulation & cladding services, scaffolding, rope access, surface protection, passive fire protection, refractory, asbestos management, inspection and atmospheric management services.

What We Do



Insulation &
Cladding



Scaffolding



Rope Access



Passive Fire
Protection



Asbestos
Management



Surface Protection



Refractory



NDT / Inspection



KAEFER in the Asia-Pacific



KAEFER Global

Doing things the KAEFER way. Since 1918. KAEFER has developed into a market leader for plant integrity services and solutions in the Mining, Energy, Industrial, Marine, Defence, Government and Construction Industries.

With over 30,000 employees and operations in over 30 countries, we are a true global player.

We are driven by innovation and doing things differently, developing new and tailored solutions to benefit our clients and are industry front-runners in digitalisation. We also ensure quality, safety, cost-efficiency and continuous improvement through our substantial in-house expertise and fully-integrated services.





KAEFER

When it counts, count on us.

Technical Excellence

The KAEFER Group is the only industrial services contractor that has its own in-house Corporate Innovation & Technical Excellence (CIE) Department, located in Bremen, Germany. This department has laboratories that can test insulation (thermal and acoustic) and coatings products in various simulated climatic and process conditions, such as cryogenic pipework operating in tropical environments.

Our local technical experts work closely with our international counterparts to share best practices. Our global portal allows for the transfer of best practice information to all KAEFER companies.

HSEQ at KAEFER

KAEFER is committed to the safety of our people and our customers, with quality and environmental preservation being critical in the overall delivery of everything we do. Commitment to these elements is essential across every facet of our organisation, from on-site personnel through to the members of our Executive Board.



SMART CHOICES



SAFE CHOICES



PROUD CHOICES



GREEN CHOICES



HEALTHY CHOICES



EFFICIENT CHOICES

Technical Excellence

KAEFER's commitment to HSEQ is driven by our holistic program SMART Choices. The program focuses on the choices employees make, both at home and at work, and is centred around five key business pillars:

- > **SAFE Choices** – Ensuring our employees stay as safe as possible when at work or home.
- > **PROUD Choices** - A quality-focused pillar. We want our employees to be proud of the work they do, the skills they contribute and the company at large.
- > **GREEN Choices** – Minimising our impact on the environment.
- > **HEALTHY Choices** – We want all of our employees to be as fit and healthy as possible, physically and mentally.
- > **EFFICIENT Choices** – Conducting all business activities in the most efficient manner possible.



ESG & Sustainability

Our company was founded more than 100 years ago with the aim to reduce the energy waste in ships leaving from the Port of Bremen, Germany. This first guiding principle has influenced much of what we have accomplished in the century since.

KAEFER has a global Environmental, Sustainability & Governance (ESG) Department, based in Bremen, Germany. Our ESG Department sets the framework for our activities worldwide, providing support to local management and ensuring that initiatives around the world are communicated effectively. KAEFER also publishes an annual Sustainability Report, which benchmarks our performance across the globe. We promote ESG across seven key work streams:

1. Carbon Footprint & GHG Emissions
2. Waste
3. Health & Safety
4. People
5. Anti-Corruption
6. Supply Chain
7. Economic Performance



In 2020, together with the CEOs of more than 180 European businesses, KAEFER's CEOs co-signed an open letter to the European Commission urging it to increase the EU emissions reduction target - **from 40% to at least 55% by 2030** - based on emissions levels in 1990. The new target of 55% was agreed by the EU Parliament and member states in April 2021 as part of Europe's new Green Deal. KAEFER is already helping to make this a reality - in part through advocating for more efficient insulation in industry.



Carbon Footprint & GHG



Waste



Health & Safety



People



Anti-Corruption



Supply Chain



Economic Performance

Our Systems

KAEFER's management systems have been custom-designed to support execution of our core services. This includes a range of in-house developed software solutions as well as continuous improvement programs to promote efficiency in delivery and provide certainty to our clients.

Project Controls & Reporting

KAEFER Project Management System (KPMS) is a dedicated management system developed in-house to manage data flow and work flows of our contracts.

Integrated with Primavera P6, KPMS manages work orders from initiation through to completion, providing full visibility on schedule, cost, productivity and QA reporting.

The system has an in-built scaffold management module (KAEFER Scaffold Management System - KSMS) that allows us to track scaffold material and costs inclusive of labour and productivity measures.

The software is also compatible with mobile devices and intrinsically-safe tablets, enabling real-time updates and progress tracking from site.





KAEFER

When it counts, count on us.

LEAN at KAEFER

Continuous improvement is fundamental to KAEFER's drive for sustained success. KAEFER's LEAN program is customised for our organisation and our services and provides a platform for this.

LEAN is a management philosophy that aims to deliver maximum value for clients by minimising waste in production and service delivery.

The program uses specific tools to identify 'waste' in maintenance or construction execution and coaches teams to find solutions to reduce this waste.

A LEAN project is where:

- > Analysis is conducted on existing processes to determine baseline and realise any wastes and waste patterns;
- > A LEAN workshop is carried out to develop process improvements;
- > Improvements are actioned;
- > The improved baseline is determined; and
- > The improvements are sustained as the new current processes.

Productivity and efficiency improvements before and after LEAN improvements are then converted to LEAN savings.

**CONTINUOUS
IMPROVEMENT**



Community & Sustainability

KAEFER is guided by the philosophy of being welcomed by the communities that host our business activities. KAEFER works towards this goal through effective engagement with stakeholders, respect for cultural heritage and diversity, creating economic opportunities, investment in community projects and programs and fostering a strong residential workforce.

KAEFER believes in being an active participant in the communities we live and work in and support initiatives that help to create healthy, vibrant and cohesive communities.

KAEFER continues to support local communities through a number of initiatives, including sponsorship programs, donations to community institutions and traineeships. We are also committed to maximising opportunities for local industry and will provide full, fair, and reasonable opportunity for suppliers and subcontractors to assist in the delivery of our activities.





KAEFER

When it counts, count on us.

KAEFER FOUNDATION

Globally, in 2010, the KAEFER Group started its own Foundation supporting global causes including prevention of diseases, natural disasters, protection of environment / ecosystem, science and projects for younger generations.

As part of our commitment to social, cultural, economic and environmental sustainability, the KAEFER FOUNDATION also promotes academic research, youth development and ecological initiatives.

We see the many faces of need around the world and aim to make a genuine difference in the lives of our employees and other people in need.

There is always some help required somewhere in the world. Therefore, the KAEFER FOUNDATION will continue its effort to help people in need and support charitable projects.

**CHANGE
LIVES**

KAEFER FOUNDATION



Markets & Services

KAEFER works in a wide variety of industries. From energy, mining & smelting through to industrial, marine & offshore, we provide products, systems, solutions and services for clients around the globe.



Energy

KAEFER has earned a global reputation as a leading service provider for the Energy Industry, from the LNG and Oil & Gas markets through to energy production and distribution. Our expertise extends from onshore oil & gas plants and power stations, through to offshore platforms and renewable assets. We have built a reputation over the last 100 years of working in the most challenging environments, delivering large-scale Greenfield projects through to ongoing repairs and rectification across Brownfield environments.

Mining & Smelting

From turnkey construction projects through to asset integrity programmes, maintenance and shutdown services, we have built a reputation for delivering safely, on-time and to a high-quality standard. Our expertise extends across commodities including iron ore, coal, copper, nickel and gold through to specialty metals including lithium. We work with our clients from the initial concept stage through to execution and handover, delivering projects of all sizes across fixed plant (including smelters and refineries) and non-process infrastructure.



KAEFER

When it counts, count on us.



Industrial

We work around the world, helping a wide range of industrial clients to keep their facilities operating reliably. We have significant experience executing a range of projects, maintenance and shutdown scopes across agriculture, chemical plants and manufacturing plants such as cement. This experience is primarily across Brownfield environments, where we continue to deliver plant upgrades and rectification works. We work actively with our clients to maintain asset longevity.

Marine & Offshore

We provide highly specialised services across the globe associated with marine and offshore infrastructure, as well as ships and naval vessels. Our experience spans from the delivery of Greenfield and Brownfield projects, asset integrity and ongoing maintenance programs through to providing technical assistance. We understand the complexities of working in marine and offshore environments including challenging logistics and material specification requirements.

Insulation & Cladding

KAEFER is internationally-recognised in the supply & installation of insulation & cladding. Our services span from hot, cold and cryogenic insulation through to acoustic insulation and personnel protection, as well as a full range of metal and alternative cladding.

We provide a full range of services, from technical support through to supply and installation across Greenfield projects as well as Brownfield rectification projects including corrosion-under-insulation (CUI). Our capability also extends to planned maintenance and shutdown campaigns.

Our services include off-site fabrication and on-site installation associated with:

- > Pipework
- > Vessels & tanks
- > Jetty run down lines
- > Furnaces
- > Reactors
- > Technical assistance associated with specification

Our workshop facilities globally contain automated fabrication equipment, enabling us to fabricate insulation & cladding components off-site in controlled environments ready for on-site installation.

KAEFER also offers customised thermal insulation jackets for assets that require regular inspection or maintenance, eliminating the need to constantly remove and replace cladding.



Pre-Insulation

KAEFER provides a Pre-Insulation process that offers compelling benefits over conventional hand-applied and other insulation methods.

KAEFER has invested heavily in research and development to refine a mechanised process that results in a high-quality overall solution that can be completed anywhere, on-time and at a competitive cost.

The Pre-Insulation process is based around modular plant and facilities that can be mobilised around the globe to efficiently insulate the pipes at a more convenient location before they are installed on-site. The insulation that is applied within the plant is comprised of several layers of Polyurethane foam covered by a tough outer composite shell.

Key benefits of our solution include:

- > Provides a cost-effective solution
- > Safety benefits and time savings through reduced on-site installation hours
- > Predictable productivity
- > High-performance cryogenic insulation
- > Robust, chemical-resistant, non-corrosive finish
- > Lower ongoing maintenance costs
- > Resistant to mechanical damage
- > Accommodates stresses and strains associated with thermal cycling
- > High-quality insulation and finish applied in workshop-controlled conditions

Scaffolding

KAEFER is a specialist access provider in the supply, erection, dismantling and management of all forms of scaffolding systems, including conventional tube & clip systems and advanced system scaffolding. With significant stockholding globally, we are able to assist our clients across the full spectrum of scaffolding requirements, from large-scale construction through to long-term maintenance and shutdowns.

Design & Engineering

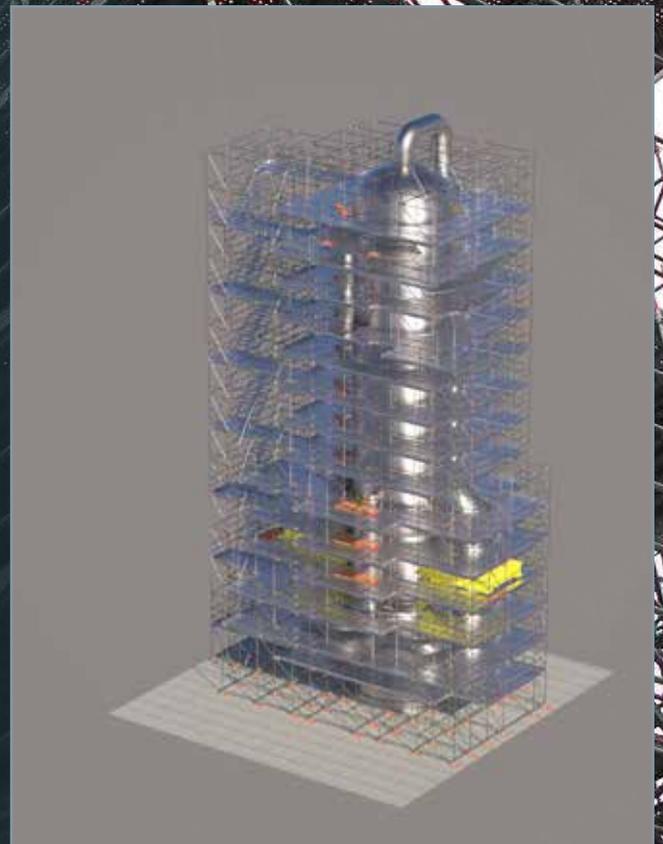
KAEFER has in-house scaffold design and engineering capability to design safe, efficient and cost-effective access solutions.

Scaffolds are designed in 2D or 3D using AutoCAD software. 3D scaffold design models can also be appended to client site models (if available) for clash detection and visualisation purposes in Navisworks.

KAEFER's Scaffold Design Engineers are qualified to review, analyse and certify scaffold designs upon request by clients. Structural analysis is conducted on a case-by-case basis, taking into consideration scaffold self-weight, live loads and environmental loads.

This process allows troubleshooting to be completed in the planning stages, rather than during construction, significantly reducing risk of harm to operatives whilst also optimising outcomes in terms of constructability, mobility and cranability.

Our design capability extends across all types of scaffolding including conventional tube & clip and system scaffolding.





KAEFER

When it counts, count on us.

Rope Access

KAEFER has a full IRATA membership and a team of trained rope access technicians from levels 1 to 3 in various industrial disciplines. Our dedicated rope access division specialises in delivering adaptable and dynamic services across a range of market sectors.

Rope access offers a safe, cost-effective access solution in difficult-to-reach and remote areas, as well as improved safety (reduced risk of falls at height and dropped objects), reduced equipment requirements and reduced disruption to ongoing operations.

Our range of rope access services includes:

- > Insulation & cladding
- > Blasting & painting
- > High-pressure water blasting
- > Welding
- > Pipe fitting
- > Electrical services
- > Non-destructive testing
- > Asset inspections (including radiography)



Surface Protection



Surface preparation and protection is a core business activity for KAEFER, delivering both on-site and off-site solutions across a full range of blasting activities and protective coating applications.

As a global coatings procurer, we leverage our extensive supply network to deliver value-for-money solutions to our clients.

KAEFER offers a full range of protective coating applications, from single component enamels, two pack epoxies and polyurethanes to high-performance plural component elastomers.

Our services offering includes abrasive blasting, high-performance coating systems, airless and conventional spray, plural component products, water blasting, ultra-high pressure cleaning, polyurethane foam spraying and thermal spray aluminium.

We also offer a diverse range of media, including aluminium oxide, glass, garnet, sodium bicarbonate, plastic and carbon steel. This allows us to conduct a full range of blasting activities, from delicate cleaning to aggressive profiling.



KAEFER

When it counts, count on us.

Passive Fire Protection

KAEFER is a licensed applicator of passive fire protection systems, utilising internationally recognised materials used for protection of structures and installations against various fire scenarios.

We specialise in providing complete fire protection solutions in combination with insulation systems. Our service offering includes:

- > Lightweight cementitious
- > Intumescent epoxy
- > Dry mortar
- > Fire protection pillows
- > Cable sealing
- > Pipe penetrations
- > Cladding for air ducts and support rails
- > Composite systems

Refractory Services

KAEFER has extensive experience in the engineering, supply and installation of all types of refractory materials. We have supplied and installed these materials across a range of industries worldwide, including petrochemical, power generation, cement & lime, incineration, non-ferrous metal, iron & steel, alumina and aluminium.

Our offering includes:

- > Maintenance and installation of refractory linings
- > Moulded and unmoulded refractory materials
- > Various methods of installation - pneumatic projection system, shed, poured, vibrated, shotcrete, pumped, pounded and hand-moulded material, hot and cold
- > Antacids and fire protection
- > Bricks
- > Mortar
- > Castables
- > Cement bases & non-cement bases
- > Ceramic
- > Metallic materials



KAEFER

When it counts, count on us.

Asbestos Management

KAEFER has extensive experience in the removal of all types of asbestos, regardless of the location or infrastructure involved.

Our experience spans across friable and non-friable materials. Our capability includes, but is not limited to, removal of the following:

- > Asbestos roof panels
- > Asbestos ceiling panels
- > Asbestos gaskets
- > Asbestos insulation and cement
- > Asbestos floor tiles
- > Asbestos cloths
- > Asbestos contained in general debris
- > Asbestos dust clearance

KAEFER maintains a pool of fully-trained asbestos workers to complete these activities. All PPE, plant and equipment we supply is fully-compliant with the latest regulations and we work closely with our clients and local authorities to ensure safe and successful completion of these works.

Inspection Services

KAEFER Insulated Pipe Scan (KIPS)

KAEFER Insulated Pipe Scan (KIPS) is a portable, real-time radiographic imaging system that scans through insulation to determine the condition of underlying pipes. KIPS captures video and images that highlight problems associated with pipes (i.e. CUI, moisture and ice). This results in significant cost savings - by minimising the time taken to identify issues with the pipe, remediation works can be performed sooner.

The system can be used on pipes ranging from 20mm - 1,200mm, with insulation ranging from 10mm - 150mm and operating temperatures ranging from -200°C - 700°C. The system is also compatible with a wide range of insulation and fireproofing materials. The portability of the system enables pipes in any location to be tested using rope access.

Energy Audits

Thermal energy loss through insufficient insulation often goes undetected in industrial plants, resulting in operational inefficiencies and increased carbon emissions. Utilising thermographic imaging, KAEFER undertakes inspections on assets to determine heat loss. Following the inspections, KAEFER Insulation Specialists compile reports complete with detailed analysis, including proposed solutions to mitigate thermal energy loss, such as alternative material selection or insulation of areas of the plant susceptible to energy loss.

We also offer a remote gas leak detection solution through Distran's "Ultra Pro" ultrasound camera. Ultra Pro can remotely detect all kinds of gas, from distances of 30cm up to 100m.

KAEFER's solutions can provide a range of benefits for operators, including significant lifecycle cost savings and dramatically reduced carbon footprint.





KAEFER

When it counts, count on us.

Atmospheric Management

KAEFER is a leading provider of innovative atmospheric isolation systems, utilising temporary work enclosure systems to enable works to be performed in environments previously restricted to process shutdowns.

Dew Point Reduction System

KAEFER's Dew Point Reduction System (DPRS) is an advanced portable dehumidification system, utilising state-of-the-art 'Dry Air' technology. The system delivers air at a humidity level where any ice on operating equipment is removed through sublimation (changes straight to vapour, skipping liquid state). The exposed plant can then be inspected and remediated without the need to shut down.

Positive Pressure Habitats

KAEFER enables the use of non-hazardous area certified equipment in potentially hazardous environments. Positive pressure enclosures isolate hazardous area equipment, allowing works in the area to be managed under a hot work permit. Positive pressure air supplied from a designated safe area via a carbon filter system ensures no hydrocarbon or hazardous vapours can enter the habitat, allowing works to proceed safely.



KAEFER

When it counts, count on us.

KAEFER Integrated Services Pty Ltd

Level 4 /218 St Georges Terrace,
Perth, Western Australia 6000
Australia

KAEFER (Malaysia) Sdn. Bhd.

No 8-02 Jalan Permas Jaya 15/1
Bandar Baru Permas Jaya
81750 Masai, Johor Baru
Malaysia

KAEFER (Borneo) Sdn. Bhd.

Lot 1615, Block 16, KLD
Kidurong Light Industrial Estate,
97000, Bintulu, Sarawak
Malaysia

KAEFER Engineering (Thailand) Ltd.

9/9 Prapa 1, Sukhumvit Road
Nernpra, Muang, Rayong 21150
Thailand

KAEFER PROSTAR Pte Ltd

#01-11 ICON @ IBP
3A International Business Park,
Singapore 609935
Singapore

PT KAEFER - Batam

Jl. Bawal No.11,
Batu Merah Industrial Park
Batu Merah, Batam 29432
Indonesia

PT KAEFER - Jakarta

6th Floor, Suite 603, Sastra Graha Building
No 21, JL Raya Perjuangan, Kebon Jeruk,
Jakarta 11530, Indonesia

KAEFER Engineering (Vietnam) Ltd.

302, Sport Hotel Building
Le Van Thiem, Nhan Chinh
Thanh Xuan, Hanoi, Vietnam

KAEFER Insulation (Shanghai) Co. Ltd.

Room 1610-1612, Emerald Intl. Plaza,
No. 1008 East Jie Fang Road,
Fengxian District, Shanghai PR China

 www.kaefer-apac.com

 www.linkedin.com/company/kaefer-apac