Contact us now!



Gas carriers

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Developing tomorrow's solutions

Technical expertise and individual consulting

Since 1965, KAEFER's Corporate Technology & Research (CTR) department has been the technology provider for thermal insulation, noise, surface and fire protection. This is where research and development work is carried out in the fields of material and system qualification and where innovative solutions are generated. Whenever standard methods fail and individual solutions need to be provided, CTR supports the operating units around the KAEFER world with its expertise.



Specialised competences and implementation

KAEFER's Corporate Competence Centers (CCC) focus on highly specialised areas in the field of insulation. CCC own and further develop specific know-how as well as competences in these fringe areas and offer high quality services. In these particular markets, the CCC have global responsibility. Besides this, the CCC maintain close contact to key account customers around the world.

KAEFER's Corporate Competence Centers are:

- > CCCL Liquid Gases
- CCCM Mattresses / Materials
- > CCCN Nuclear
- > CCCP Pre-insulation
- > CCCR Renewable Energies



Safety first!

KAEFER's safety culture: Zero-tolerance for accidents

At KAEFER, we take care of the well-being of our people. High standards of health and safety and strict regulations are in place in order to ensure a safe working environment for each and every employee.



Our company's safety record is testament to the significant investment which is made, to ensure that all our employees benefit from relevant technical and safety training such as inductions, active workshops and tool box meetings.

Health and safety has always been a top priority at KAEFER and will remain so. We uphold this safety culture in all our locations and project sites no matter how remote.



Excellence in quality

Quality is a key business objective for KAEFER and we believe it is essential in order to stay successful. For us, this means providing excellent quality in everything we do, whilst also being committed to improvement at all times. Our efforts and high standards in the areas of quality, environment and safety are confirmed by the ISO 9001, ISO 14001 and OSHAS 18001 certifications.

Cultivating talents worldwide

Training and qualification at the KAEFER Academy

Through several professional training programmes, which form the KAEFER Academy, we help our people to achieve their full potential.

Our programmes are adapted to the unique demands of the industry, provide answers to KAEFER's business needs and are closely tailored to the challenges which our professionals face in their day-to-day business, such as:

- > Leadership Development Programmes
- > Project Management Qualification
- > KAEFER Excellence in Estimation Programme
- > Lean Leader Training
- > Trainee Programme



On board the Lean Journey

A road to success: Implementation of Lean at KAEFER

Originally invented to increase efficiency in the production of automobiles, Lean has found its way into multiple sectors and disciplines. Lean aims to eliminate any forms of waste by continuously evaluating and improving existing processes.

Since 2013, KAEFER has been following its own Lean Journey. We have established a growing pool of trained Lean Leaders, who coach onsite personnel, implement Lean principles and share best practices around the KAEFER world.

By now, Lean has become an integral part of our company culture, resulting in:

- > a safer work environment
- > standardised processes and
- > increased efficiency

LEA

From peat to high-tech

The history of an idea and how it developed

In 1918, Carl Kaefer from Bremen came up with the idea of using peat to insulate cold stores on ships. Back then, he achieved what we now call "energy efficiency". It was the beginning of a success story, which has now been told for more than 95 years. Today, KAEFER has transformed into a global company with sophisticated technology, expert craftsmanship and a great deal of flexibility.

KAEFER – Recognised, Efficient, Different

Our Vision

"To eliminate the energy waste."

Our Missio

"To support our clients' success by delivering the most professional integrated services and solutions for the Industry, Marine & Offshore, and Construction business worldwide."

In order to best meet our vision and to stay ahead of competition, KAEFER has developed a strategy to increase its competitive strength by being recognised, more efficient and different – in short: RED!







recognised e

efficient

different

Your partner in LNG





KAEFER - expert in LNG ...

KAEFER holds a worldwide leading position as an integrated services and solution provider and is a leading player in cryogenic insulation for LNG – a market which is growing in both size and importance. With over 40 years of experience in the LNG industry, KAEFER has been developing steadily and successfully executing works on major LNG projects worldwide.

KAEFER's LNG business covers high-performance insulation on gas plants, pipelines, as well as storage and transportation tanks. Our services include engineering, detailed design, project execution, purchase of materials, job site management and consultancy to each related KAEFER activity – onshore as well as offshore. In conclusion, we cover the whole chain of gas handling, from exploration to the receiving party.



... and beyond!

With an annual turnover of around €1.4 billion, KAEFER's business is carried out in its Industry, Marine & Offshore and Construction divisions. Headquartered in Bremen, in the north of Germany, we have operations in over 50 countries with a current workforce of 26,000 employees who deliver safe, reliable and intelligent solutions.

Our wide range of services



Insulation



Access



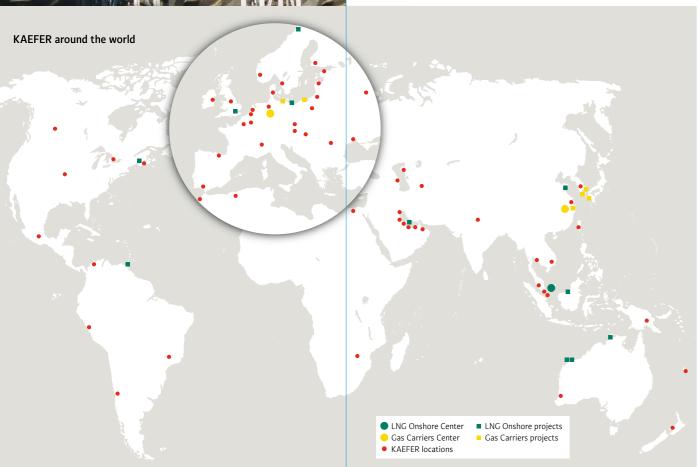
Surface protection

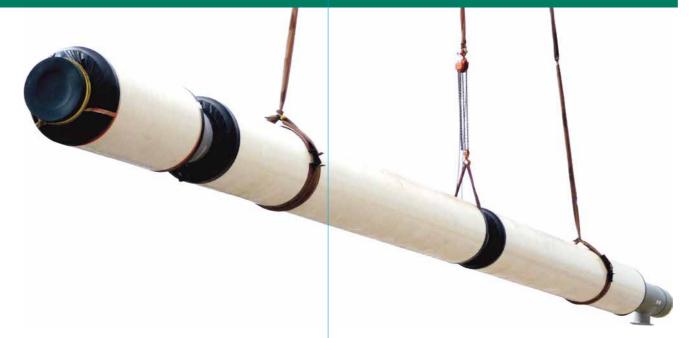


Passive fire protection



Interior outfitting





Insulating pipes with focused knowledge ...

With a growing global demand for clean energy and LNG technology, KAEFER established a Solutions Centre dedicated to LNG.

The main task of this LNG Solutions Centre is to provide our clients with sophisticated, flexible and versatile work practices, transition plans, local trainings and logistics.

Smart insulation: The Box Project

When insulating valves and flanges in major LNG projects, metal boxes are built around them, which are then filled with insulation material. These boxes are usually individually matched to the corresponding item. Due to an automated standardisation process, KAEFER's "Box Project" solution reduces the number of different box shapes, sizes and designs required over the length of a project. It is applicable to over 80% of the boxes required on LNG projects and also greatly assists the manufacturing and installation of non-standard boxes.

Advanced materials: Aerogels

KAEFER implements advanced insulation materials, such as aerogels, which are adjusted e.g. for cryogenic applications including cryogenic pipelines, vessels, and equipment. Its advantages are:

- > Three to five times more insulating than polyurethane foam
- > Freight savings / storage space, simplified inventory
- > Environmentally friendly
- > Fire resistant
- > Durable
- > Hydrophobic

... and innovative solutions!

Inventing new methods: Pre-insulation

KAEFER's pre-insulation process is based around a modular plant and facilities which can be mobilised around the globe to efficiently insulate the pipes before they are installed on-site, thus freeing the process from difficult outdoor conditions. This pre-insulation method is predominantly used on LNG plants and receiving terminals, such as the jetty, load out and vapours return lines. We have refined a mechanised process which results in a high-quality overall solution. This can be completed anywhere, on-time and at competitive prices.

Advantages of KAEFER's pre-insulation method

- > Ensuring consistently high quality
- > Time saving in critical project phase
- > Reducing on-site manpower and scaffolding requirements
- > Eliminating potential construction delays
- > Improving project profitability for all parties involved



Offering multiple gas carrier services ...

When it comes to the insulation of gas carriers for LNG usage, our people at KAEFER's Corporate Competence Centre Liquid Gases (CCCL) are the experts.

Corporate Competence Centre Liquid Gases

Our activities:

- Engineering and design, research and process development
- Class approvals, product certifications and accreditations
- Material supply, foam block production and machining
- > Fabrication of sandwich / hybrid insulation panels
- > Installation and supervision

Our products and services:

- > Cryogenic cargo and fuel tank insulation systems
- > Pipe and gas plant insulation, high density pipe supports
- > Spray foam systems, vacuum insulation solutions
- > Fluid handling solutions, cryo energy storage
- > On- and offline repair services for cryo tanks and
- > Acoustic enclosures and passive fire protection systems

A new base in Shanghai

Due to its European-based location, KAEFER's CCCL also signed a joint venture in 2014 with Shanghai Broadway Packaging & Insulation Materials Co., Ltd (SHBW), establishing itself in the Chinese market. The objectives of the joint venture KAEFER Broadway Insulation Systems (Shanghai) Co., Ltd. are the engineering, manufacturing and sales of various insulation systems for gas carriers, as well as enlarging the scope of services for the local Chinese market.

... and many years of experience!

Crossing the oceans: Insulating gas carriers

For the transportation of cold and cryogenic substances, we at KAEFER offer several systems which can withstand extreme temperatures and mechanical pressures. A good example is the multi-layered insulation system, which allows transportation of temperatures down to -163°C. At higher temperatures, a detached insulation system of polyisocyanurate foam (PIR) is used.

Our further insulation systems include:

- > Type C-tank panel insulation system
- Moss technology: specially machined Polystyrene (PS) and/or
 Polyurethane (PU) panels are fixed to the spherical tanks
- > LNG fuel tank insulation
- > Deck cargo pipes and equipment
- > GTT membrane insulation system, KAEFER is appointed supplier for the Chinese market

Advantages of KAEFER's insulation system on gas carriers

- > Condensate-free surfaces
- > Optimal heat flows
- > High level of efficiency and safety

KAEFER is actively involved in the development of new cargo containment systems for liquid gases and floating LNG (FLNG), as well as on ice-going LNG carriers.

Other areas of application for KAEFER in LNG carriers are structural insulation, engine rooms, catering facilities, public spaces, and accommodation.

