



Electrical Tank Container Heating Systems

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**„Onshore or at the deep-sea:
We maintain your product temperature
and ensure your tank container fleet
is running smoothly.“**





From A to Z Your One-Stop-Shop

› Serial Resistance Trace Heaters

for freeze prevention and process temperatures in industrial plants and facilities.

› Parallel Resistance Trace Heaters

Parallel trace heaters with constant wattage output and a single end power input. For applications in hazardous and non-hazardous locations.

› Self-Regulating Trace Heaters

for freeze prevention and temperature maintenance in industry and building & construction. Applications up to 250 °C.

› Mineral-Insulated Trace Heaters

exclusively manufactured and finished from Alloy 825 or high-quality stainless steel. The unique "Clean Laser Seal" Technology (CLS) guarantees a homogenous, 100% stable system and reliable function up to 700 °C.

› Heated Analytic, Pressure and Loading Systems

for reliable and safe transport of pressurised or non-pressurised fluids and gases without temperature loss, up to 450 °C.

› Heating Mats and Jackets

custom-engineered and tailor-made, for heating valves, pumps, drums, barrels, hobbos and flange covers, up to 450 °C.

› Power and Control Panels

including temperature sensors, display and operating devices, monitoring and controls plus accessories for reliable, safe functioning.

› Accessories

for safe and effective assembly and operation of complete heat tracing systems in facilities from small to large.

Applications



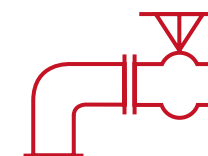
Temperature
maintenance



Freeze prevention



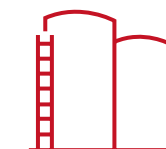
Pipelines



Valves, pumps



Tank container



Silos, vessels, tanks



Open area



Railway



Antenna



Special solutions

› Your scope of application is not included? We will advise you individually.



From Process to Product

The eltherm Story

Founded in 1991 in Burbach, Germany, eltherm has developed into a global engineering solution provider with own production facilities and a one-stop-shop for electrical heat tracing products and systems. The company has attained worldwide recognition as a turn-key partner for engineering, design, installation and commissioning of electrical heat tracing for complex industrial plants and facilities.

With its own comprehensive production facilities for all types of heating cables and accessories, eltherm has built up the engineering expertise to become one of the leading manufacturers of electrical heat tracing systems in the world.

Besides frost protection and temperature maintenance applications up to 900 °C, eltherm is the competent partner for complete system solutions like heating whole chemical or other industrial plants. eltherm proved its potential and expertise in different industries such as oil and gas, power plant, construction, automotive and food.

› Portfolio Focus

We provide a comprehensive range of electrical heat tracing products, systems and solutions from A to Z. Your One-Stop-Shop.

› Customer Focus

Our focus on the benefits to our clients sets us apart from competitors. We understand and solve our clients' needs with technological passion.

› Technical Focus

We specialise in electrical heat tracing. That is our core competence and inspiration.

› Global Focus

We are a global engineering company with our own production facilities, serving international markets and projects from 13 locations on 5 continents – and with a staff force of 300.



Our production Made in Germany

Our entire product range is manufactured in-house at our Burbach site in Germany, in accordance with the latest standards and in compliance with international approvals and certifications. Our in-house production not only includes the production and assembly of heating cables, but also the customized production of heating mats and heating sleeves for valves and pumps as well as the assembly of special heating and pressure hoses.

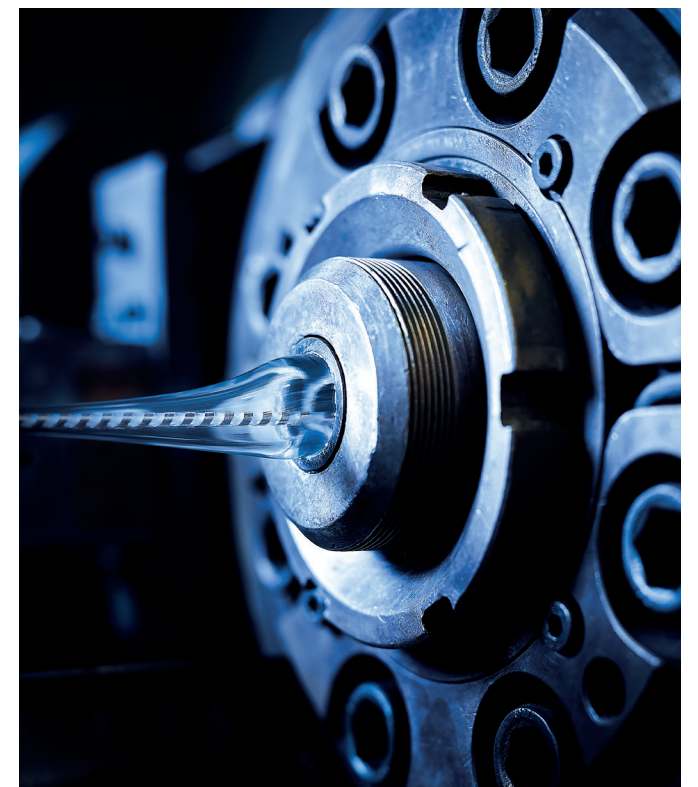
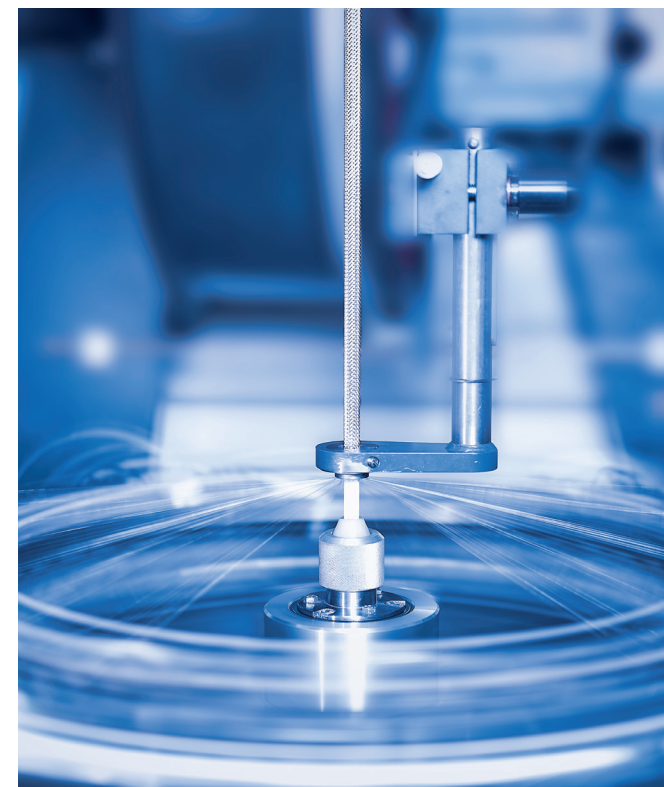
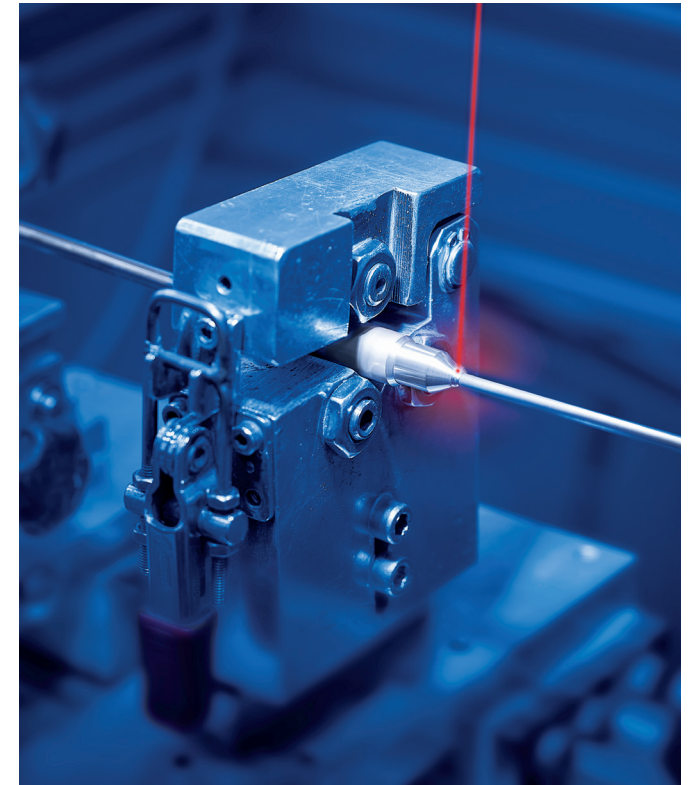
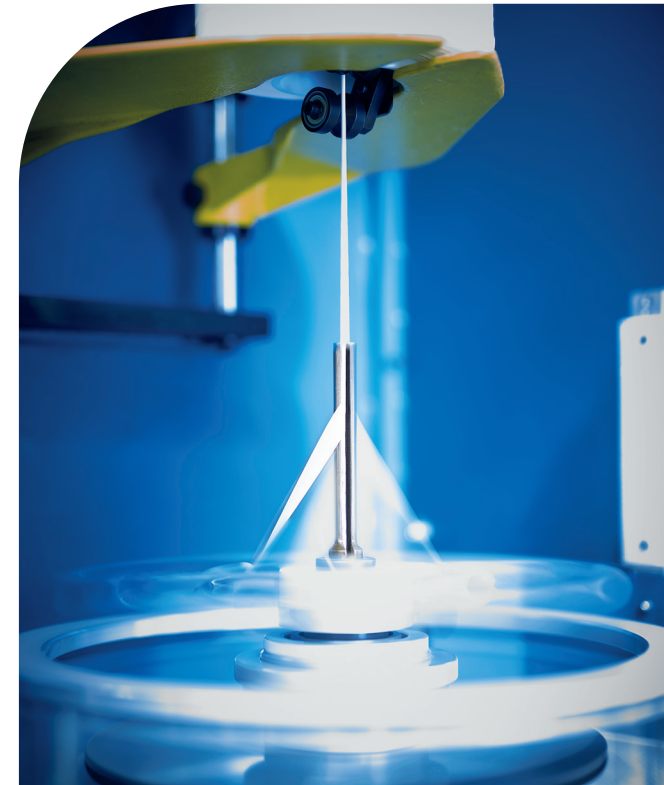
We deliver your heat tracing systems all over the world, supervise their installation and commissioning, and support you with maintenance and servicing. At eltherm, you experience a seamless supply and service chain that extends from your enquiry or problem definition through consultation to the finished product or fully operational system.

You reap the benefits of obtaining everything – from enquiry to approval – from a single source.

Our solutions are focused on maximum homogeneity and reliability in the system. Due to different designs of heating cables, our heating systems can cover temperatures up to 900 °C and offer the best possible protection against e. g. aggressive chemicals. In addition, they are resistant to both heat and moisture. This resistance is particularly essential in potentially explosive atmospheres.

The advantages of eltherm

- › Made in Germany
- › In-house development and production
- › Continuously high production quality
- › Custom-made and application-oriented solutions
- › Maximum homogeneity and reliability within the system
- › Our portfolio includes everything from heating cables, heating mats and heating sleeves to heating and pressure hoses as well as the corresponding measurement and control technologies
- › Worldwide service



At a Glance

Benefits

- › Precise constant temperature throughout the production and transport process
- › Exact constant temperature for loading and unloading
- › Monitoring and storage of temperature data
- › No cold zones, even if a cable is damaged
- › Corrosion resistant
- › Low net weight of trace heating
- › Fast and simple repairs and maintenance even on a laden tank
- › Safe, problem-free operation
- › Highest availability and lowest life cycle costs compared to all other heating solutions available

Approvals



- › UL approval on request

Electrical Tank Container Heating Systems

Electrical trace heating for tank containers provides a safe, sophisticated and reliable alternative to heating with glycol or steam. The eltherm portfolio combines high-quality systems and accessories for eltherm trace heating with special solutions developed for individual customers. Fleet operators worldwide benefit from the engineering and application know-how of our technicians. Paired with our global organisation, this forms a reliable basis for problem-free operation.

Application

Electrical trace heating from eltherm is used to keep temperature constant and for reliable transport with no heat loss of sensitive chemicals including MDI, high-viscosity substances in the chemical and petrochemical industries, oil, grease, resin, paints, bitumen, adhesives, food-stuffs and sealants in tank containers, SWAP containers, road tankers and IBCs (Intermediate Bulk Container). Because electrical trace heating is resistant to sea water and corrosion, it can be used reliably on land or in the water.

eltherm benefits in technical features

- › Temperature accuracy of $\pm 1^\circ\text{C}$ during storage and transport
- › Standard output up to 18 kW, other power levels available on request
- › PTFE heating cables are resistant to cargo loading temperatures up to 260°C
- › Designed for power supply between 220 V and 500 V for worldwide transport
- › The empty tank can be heated pre loading
- › Reliable compensation for heat loss on thermal bridges such as suspension areas or equipment like valves
- › Undisturbed operation, even under voltage peaks during ship transport
- › The heating cable is laid redundantly, so even if one heating cable is damaged in each heating circuit, secure cargo transport is ensured



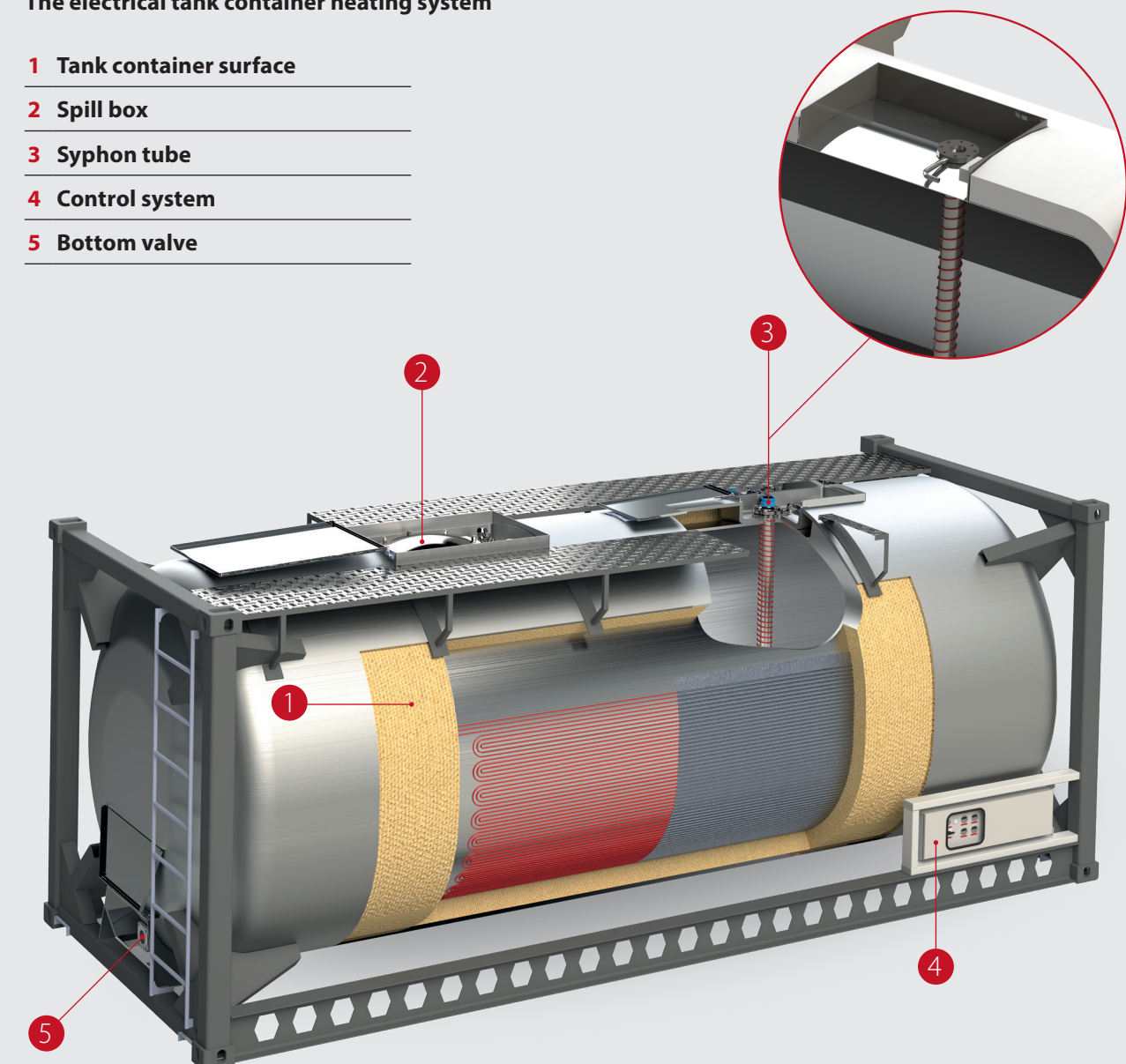
eltherm is a member of ITCO!

As part of a global association, we support you in helping to shape the future of the tank container industry.

Checklist

The electrical tank container heating system

- 1 Tank container surface
- 2 Spill box
- 3 Syphon tube
- 4 Control system
- 5 Bottom valve



This is just a schematic overview, not an installation instruction.
For detailed information, please contact our engineers.

» Our support

On your way with us

Your requirements are top priority for us. Because of this we have structured our team so you always have a direct contact person you can turn to. We build on reliability and the trust of our customers as we strive to give you the best support possible. Our specialists for trace heating in tank container applications will keep your tank container fleet ready for use. We help you to ensure the reliability of your fleet. To do that we provide extraordinary and custom-made support solutions.

We offer you the end-to-end worry-free package: Service and trained personnel, dedicated to serve you personally with their ample experience.

PERSONAL & DEDICATED

Practical experience and skilled service, directly on site. We are there for you.

Contact us

tc@eltherm.com



On site globally

Trained personnel are always on site for you to support you reliably for your requirements. We ensure worldwide support.



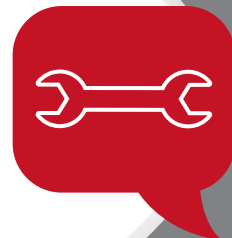
Maintenance & servicing

We check to ensure the reliable function of our systems, carry out timely maintenance and repairs on site and make certain you are spared expensive downtimes.



Warranty

24 months warranty if assembled by eltherm-certified specialists.



Spare parts

Do you need a spare part? We have all the necessary parts, available for you on site. Our dedicated team will be pleased to support you with practical experience in professional assembly.



Installation & commissioning

We ensure your trace heating system is delivered, professionally installed and ready for operation. We provide all the conditions needed for an on-time start and smooth, long-term operation.

➤ Frequently asked questions – our experts reply

What is our approach to design container heaters?

Our task is to design your container heater specifically for you, to be suitable for your highest possible standards. Whether onshore or offshore: We offer you trace heating solutions tailor-made to your needs.

How do we ensure fast support for you as a customer?

We are available for you as a direct contact person for advice and active support. We support you through the entire process, from the design of your container heater to implementation and commissioning.

Corrosion protection of your switch cabinet – why is that so important?

Does your tank container fleet operate worldwide, even under extreme environmental and ambient conditions? We offer sea water-resistant switch cabinets for these requirements. Maximum protection that pays for itself. Choose the best solution for you individually from our extensive assortment.

When you need a spare part, how do we support you?

No matter which spare part or component you need: You can contact us directly and reach us at any time. We ensure your system availability with our fast support. So your tank containers are always ready for operation.



What advantages do we offer you?

Every application is very specific in its own way. We bring the necessary experience and know-how to support our customers and offer them individual solutions. We place great emphasis on personal contact and long-term contact persons. Assembly is performed by our skilled employees. We are ready to provide advice or active support for you whenever you need help. As a manufacturer, eltherm is familiar with all the interfaces, so we are able to offer you the advantage of everything from a single source.

80.000 km

of trace heaters spanning twice the circumference of the globe in the course of a decade are used in a wide range of industries.

30 year | 5 Continents 13 Locations

life cycle time is considered in the tank heaters' design.

300 Staff Members

work for eltherm all over the world. And for you and your heat tracing challenges.

300 °C | Eight

is the maximum holding temperature at which the temperature-sensitive chemicals and raw materials safely retain their product properties even during worldwide transport.

Engineering Hubs

provide engineering solutions for turnkey projects and EPC requirements all over the world.

Twenty-three Nations | 1200m

The eltherm team is multinational. We are natives of a total of 23 nationalities.

of serial heating cable are installed on average in our high-temperature applications on ISO tank containers.



A contribution to sustainability and climate protection: eltherm is pursuing various projects to reduce greenhouse gas emissions. On the way to climate neutrality, the Group's accrued CO₂ emissions are fully offset through the promotion of climate protection projects (Scope 1 and 2).

More at: www.eltherm.com/sustainability

At Your Service eltherm globally

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Shanghai/China
Barcelona/Spain
Singapore
Newbury/United Kingdom
Burlington/Canada
Calgary/Canada
Johannesburg/South Africa
Burbach/Germany
Casablanca/Morocco
Santiago de Chile/Chile
Astana/Kazakhstan
Delhi/India

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