

HEAT TRACE™

SETTING THE STANDARDS LEADING THE WAY

The Heat Tracing Authority™





Heat Trace Limited.....

40 YEARS ON!

The History

When Neil Malone founded Heat Trace Limited in 1974, electric heat tracing was still in its formative years. In the four decades since then, it has developed into a significant industry based on quality principals.

Throughout this time, Heat Trace Limited has been at the forefront, deeply involved in the development of BS6351 - Electric Surface Heating, the first European standard published in 1982, through to IEC62086 - a harmonised World Standard launched in 2000 - now IEC60079-30.

From the start, Heat Trace developed products and systems not only satisfying the new standards, but also meeting Heat Trace's own corporate objectives of improving...

"safety, efficiency, reliability and performance".

These highly focused objectives engendered a corporate culture within the company that remains to this day. The result has been a stream of novel, patented products – both heating cables and control and monitoring equipment – that have seriously influenced the direction and focus of the heat tracing industry.

Heat Trace's ground breaking "EVOLUTION" Heat Tracing System Design Software enables engineers, either within the Heat Trace organisation, or in Engineering Houses, to quickly, accurately and competitively design and engineer heat tracing systems of the highest calibre - with emphasis on safety, efficiency and lowest cost of ownership for the end user.

In 2014 Heat Trace won the prestigious Queens Award for Enterprise in the category of Innovation. This was in recognition of the continuing technological development in the field of semi-conductive polymer heating cables.

Today Heat Trace Limited is a global company providing complete heat tracing solutions. In addition to systems manufacture, services include consultancy, system design, installation and commissioning, project management, maintenance and training.

Heat Trace Limited has become

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Innovation

Heater Technology

Heat Trace Limited developed and patented the world's first cut-to-length parallel resistance heating cable in the 1970's. This was followed in the early 80's by 3 phase Longline series cables for heating long pipelines. Both of these heaters were based on foil conductor technology, a principle that remains within the company's product range today.

More recent developments include the patented AHT, the world's first mineral insulated, metal-sheathed cut-to-length parallel resistance cable for high temperatures or high power duties.

Today, Heat Trace Limited manufacture the widest range of heating cables, including what is now considered to be the world's largest range of self-regulating, semi-conductive heating cables, with voltages from 12 volts to 1000 volts, outputs up to 150W/metre and withstand temperatures of up to 300°C. With the self-regulating style of heater accounting for around 80% of the world market for heating cables, Heat Trace are the world leaders in this technology.

Heat Trace invests a significant proportion of its revenue into research and development, resulting in many new patents and innovative products and processes.

A recent investment in a purpose-built state of the art metal extrusion facility, installed at our Innovation and Technology Centre in Bredbury, Cheshire, now improves our ability to extrude continuous lengths of metallic sheathing on our range of heaters.

New product developments also include patented self-regulating heated tubes for the automotive and aerospace industries, as well as "Hotwat Pipe" an insulated and heated tubing for maintaining hot water distribution systems in residential, commercial and industrial buildings.



Control and Monitoring

Heat Trace Limited were perhaps the first heat tracing company to recognise the important link between control technology and the "safety, efficiency, reliability and performance" of heat tracing installations.

The company patented Powermatch, a self-regulating controller (as opposed to ON/OFF control) that turns heater power up or down in response to changes in heat losses. Although launched over 20 years ago, the benefits are even more relevant today now that energy efficiency is one of the world's major environmental issues. The new PowerMatch Micro Plus Controller incorporates these benefits in a small low cost digital controller, with the extra benefits of additional line control and High / Low temperature alarm facilities.

Today, Heat Trace's range of electronic control and monitoring equipment extends from simple thermostats, to microprocessor controls capable of integration with full plant SCADA and DCS systems.

Innovation led technology has ensured that Heat Trace remains

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Research & Development

Research & Development

Work is currently being carried out in several important fields, such as:

- Polymer technology
- Metallurgy
- Composites
- Electronics
- Programmable power control.

This work is carried out within the group's own R & D Laboratories, sometimes in conjunction with major research and educational establishments. Product proving often takes place with the assistance of Government Departments, such as the Department of Energy.

In addition to becoming one of the world's leading manufacturers of heating cables and associated equipment, Heat Trace's Research & Development Division ensures that we continue in.....

"Setting the Standards and Leading the Way".



Quality Assurance

In addition to manufacturing products, a high quality Design and Engineering facility is available from a number of globally located design centres. Together with the manufacture of a complete and comprehensive product range, our worldwide installation and commissioning service, enables us to offer complete, or partial, turnkey projects.

System design and manufacture is carried out in accordance with all International Standards for electric heat tracing systems. System Design is in accordance with BS EN ISO 9001 Quality Management System. All products carry International Approvals, such as ATEX; IECEX; VDE; CSA; FM; EAC/TR-CU; DNV and other approvals from accredited International Test Houses.



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Applications

INDUSTRIAL

Electric heat tracing

Industrial applications may be found in oil and petro-chemical plants, refineries, pharmaceutical production, power generation, water and waste treatment plants, food processing, plus many others.

Heat Trace manufacture full heat tracing systems for:

- Short or long pipelines
- Complex in-plant piping systems
- Above ground, buried, or sub-sea pipelines
- Externally or internally traced pipelines
- Safe or hazardous area installations
- Heated helidecks
- Tanks and vessels
- Hoppers
- Instrumentation and sample lines
- Instrument enclosures
- Temperature maintenance, or heat raising, to temperatures up to 600°C.

Steam heat tracing

Since the early 1900's, steam tracing has been the primary means of industrial heat tracing – even today 70% of all industrial heat tracing systems are in fact steam.

Where steam supplies are available, steam for heat tracing is considered to be “free” surplus energy. However, steam tracing of pipe work and vessels is generally inefficient and difficult to control, when compared with electric heat tracing systems. Furthermore, no energy can be considered “free”!

Heat Trace can assist in ensuring that steam tracing systems operate at their optimum efficiency.

For several decades, Heat Trace's thermal transfer compounds have been successfully aiding the efficiency of steam tracing systems around the world in petro-chemical, processing, power generation and other strategic industries.

Heat Trace's thermal transfer compounds cover temperatures up to 600°C. Additional low temperature “flexible” compounds complete a comprehensive product line capability.



OFFSHORE

In the harsh offshore environment safety and reliability are high priorities. Heat Trace are able to supply high quality products and services to meet the demands of the industry. Flexible sub-sea heated pipelines, heated riser systems, topside pipeline heating (freeze protection and temperature maintenance) helicopter platform snow and ice prevention systems - these are just some of the application solutions available from Heat Trace Limited.

SPECIALIST APPLICATIONS

For above ground and buried long pipelines, where a limited number of power supplies are available, Heat Trace is able to provide a comprehensive range of special long pipe line heating systems, using series resistance heaters and skin effect current tracing systems.

Other specialist applications include hopper heating modules for electrostatic precipitator hoppers, oilwell downhole heating systems, flexible sub-sea heated pipe system for off-shore use in deep sea oil and gas exploration and production applications, also in-shore applications for FPSO and tanker off-loading systems.

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TRANSPORTATION

Heat Trace's Transportation Division specialises in heating systems for all modes of transport.

The range of track and points heating systems is designed to meet the exacting standards required in the transportation industry. Whether the requirement is for high power constant wattage output heaters, or for high power self-regulating heaters, you may be sure that the Heat Trace range of products has the reliability and durability required for all heating applications, including the heating of points systems, swing nose crossings, live contact rails, monorail system tracks, urban transit systems and tramway rails.

Heat Trace provide complete systems incorporating heaters, ancillary equipment and all the necessary control and weather monitoring systems.

Additional products have also been developed for door threshold heaters, pantograph shoe heaters, snow and ice prevention systems for platforms, walkways, access ramps, station canopies, etc., Under-floor heating for offices and waiting rooms, together with freeze protection systems for rolling stock water and fuel supplies.



COMMERCIAL

Commercial applications for heat tracing exist almost everywhere and systems may be found in domestic, municipal and institutional buildings; hospitals; nursing homes; office blocks; leisure complexes; educational establishments; etc.

Heat Trace can supply energy efficient systems for:

- Freeze protection of pipes/tanks
- Heating of hot water pipes
- Heated walls
- Roof and gutter heating for snow/ice prevention
- Snow/ice prevention on roads/ramps/walkways/steps & access areas, etc.
- Heating fuel storage tanks

RESIDENTIAL

A new brand, 'HeatSafe', has been launched to satisfy the heating requirements for residential applications.

The HeatSafe system comprises a complete range of safe, modular, easy-to-fit, heating and freeze protection solutions, designed by the customer to meet his own specific requirements. All systems are designed to be easily installed in residential and light commercial applications without the need for a professional installer, or electrician.

Employing multi-purpose, self-regulating heaters, incorporating Inherently Temperature Safe technology, the HeatSafe range is a low cost, affordable solution for the consumer. Systems can be designed and then purchased directly using a step-by-step on-line guide on the HeatSafe interactive e-commerce site at: <http://www.heat-safe.com>

Applications are available for, pipe freeze protection; roof and gutter heating; snow and ice prevention on paths, steps and driveways; horticultural soil warming for seed and plant propagation; plus many others.

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Design & Engineering Services

As you would expect from a high calibre company, Heat Trace is able to fulfil the expectations of clients who wish to entrust the widest possible range of services to a single contractor able to manage all aspects of a heat tracing project.

A complete range of Design & Engineering Services is available - ensuring that all requirements of the client are satisfied.

Consultancy

From Concept through to Commissioning – Heat Trace Limited offers a full turnkey project capability, from the initial enquiry through site surveys to final client handover.

Design

All design work is carried out in accordance with ISO9001 certification. Using Evolution, Heat Trace's own state-of-the-art electric heat tracing design software, ensures that system design complies with the latest national and international standards for electrical heat tracing systems.

Bespoke Software

Heat Trace's Evolution Design Software empowers our partners, be they customers, distributors or engineering houses, to produce safe, reliable, competitive and detailed heat tracing system designs. Designs for frost protection, temperature maintenance and heat raising of pipes, tanks and vessels are all possible, calculating stabilised designs and temperature control requirements where appropriate. The completed design package can then be assembled and presented, either as a quotation, or tender document, for submittal to the client, all from within a single software package.

Installation

Fully qualified installation and site supervision engineers are available to ensure that systems are installed in full accordance with the specified design and that systems conform to national and international standards and codes.



Commissioning

Our commissioning engineers will carry out final inspection and testing, ensuring system operation is in accordance with design specification, prior to handing over to the client.

Project Management

Dedicated Project Managers will ensure the smooth operation and completion of all major projects.

Maintenance

Annual Maintenance Contracts are available to ensure the system always remains at its optimum operating efficiency.

Personnel Training

Training in product knowledge, system design, installation and maintenance procedures can be provided, either on-site, or at one of our Affiliate/ Partner company premises.

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WORLDWIDE REPRESENTATION

Heat Trace is represented throughout the world in over 40 countries. Our network of Affiliate Offices, Partner Companies, Distributors and Agents work, both independently and jointly, with our Corporate Headquarters, resulting in an integrated team of heat tracing and surface heating specialists having a global capability.

For full details of overseas offices please contact
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