



INDUSTRIAL HEATERS



APPLICABLE IN:

- Chemicals & Fertilizer Industries
- Pharmaceutical Industries
- Steel and Metal Industries
- Wind Blade Manufacturer
- Cement Industries

- Food Industries
- Aromatic Industries
- Dairy Product Manufacturing Industries
- Glass Manufacture Industries
- Oil & Petrochemical Industries
- Plastic and Rubber Industries.

ELECTRIC HEAT TRACING:

Electric heat tracing is a system used to maintain the temperature of pipes and vessels. Trace heating takes the form of an electrical heating element run in physical contact along the length of a pipe. The pipe must then be covered with thermal insulation to retain heat losses from the pipe. Heat generated by the element then maintains the temperature of the pipe. Trace heating may be used to protect pipes from freezing, to maintain a constant flow temperature in hot water systems, or to maintain process temperatures for piping that must transport substances that solidify at ambient temperatures. Electric trace heating cables are an alternative to steam trace heating where steam is not available or unwanted.

Hot water service piping can also be traced, so that a circulating system is not needed to provide hot water at outlets. The combination of trace heating and the correct thermal insulation for the operating ambient temperature maintains a thermal balance where the heat output from the trace heating matches the heat loss from the pipe.

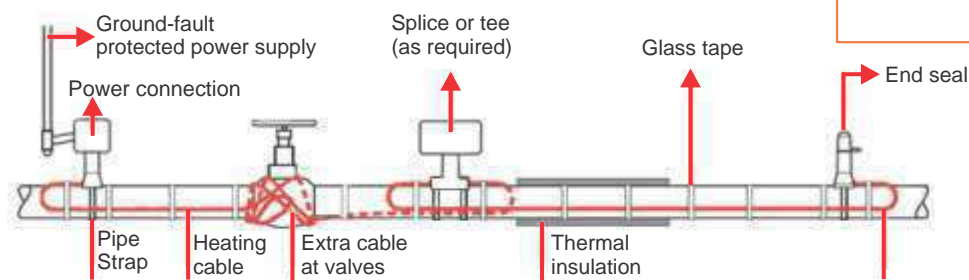
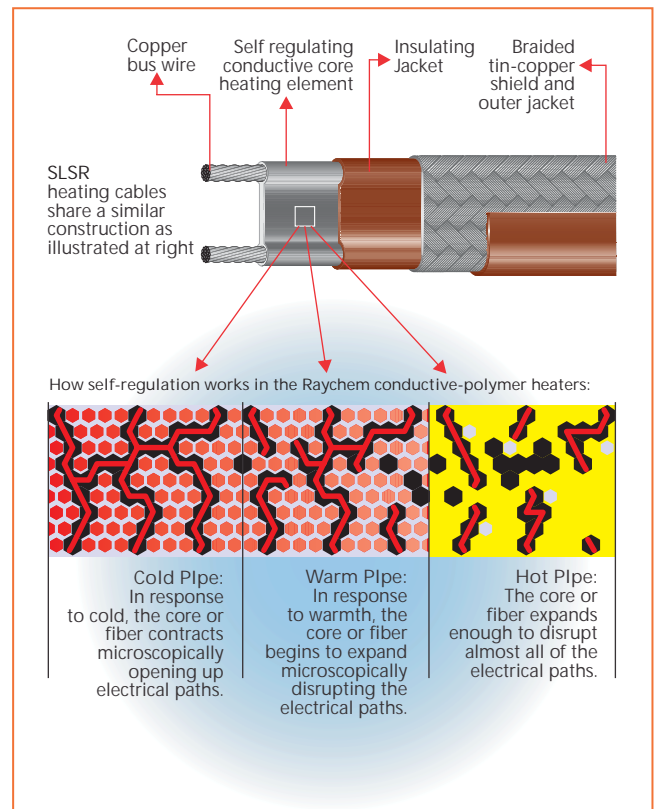
A similar principle can be applied to process piping carrying fluids which may congeal at low temperatures, for example, Furnace oil, HFO, edible oils, tars or molten sulphur. Trace heating element can prevent blockage of pipes.

SELF REGULATING TECHNOLOGY

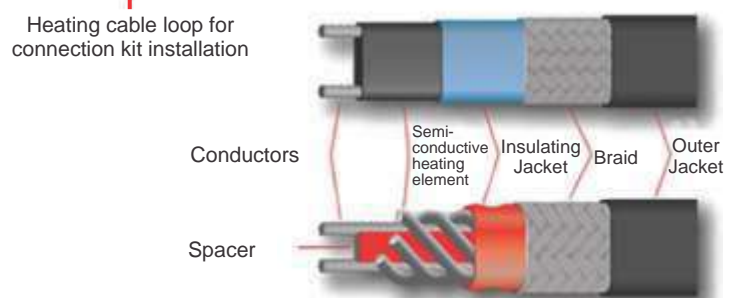
Self-regulating cable is made of polymer mixed with conductive carbon. The special formulation of materials create an electrical path for conducting current between the parallel bus wires along the entire cable length. In each heating cable, the number of electrical paths between the bus wires changes in response to temperature fluctuations.

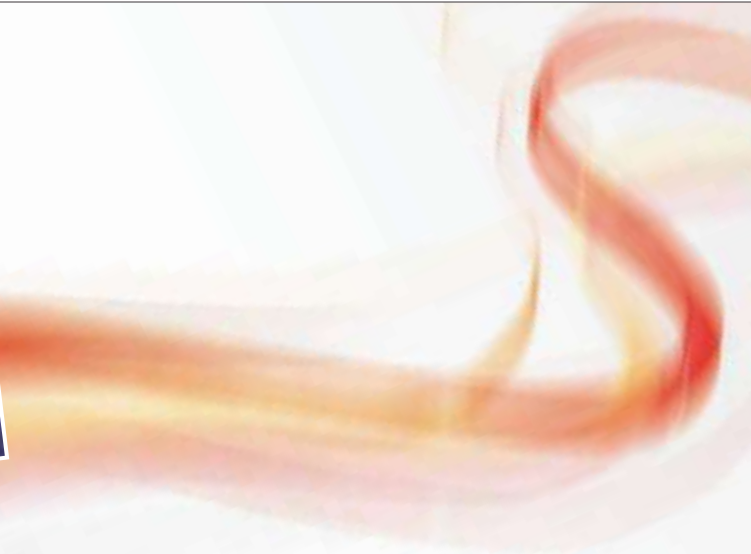
As the temperature surrounding the heater decreases, the conductive core or fiber contracts microscopically. This contraction decreases electrical resistance and creates numerous electrical paths between the bus wires. Current flows across these paths to warm the core or fiber.

As the temperature rises, the core or fiber expands microscopically. This expansion increases electrical resistance and the number of electrical paths decreases. The heater automatically begins to reduce its power output.



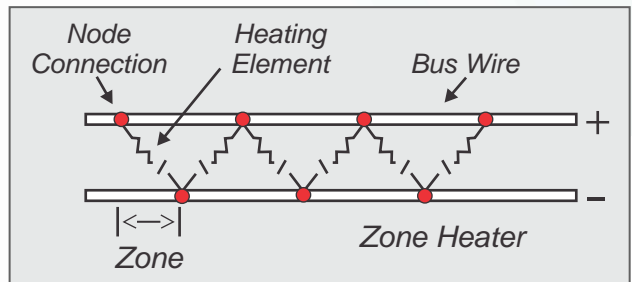
Typical self-regulating heating cable system





CONSTANT WATTAGE PARALLEL RESISTANCE HEAT TRACER.

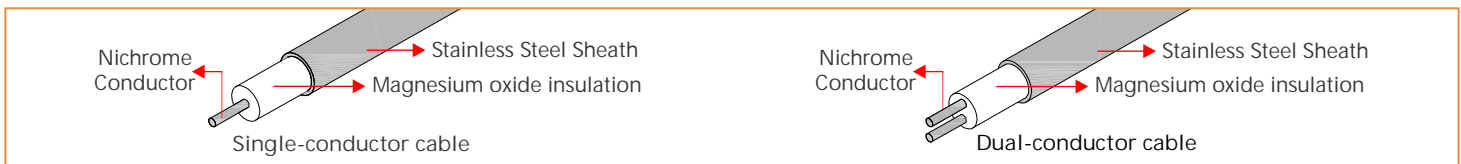
Constant electric power zone cable is made by wrapping a fine heating element around two PTFE insulated parallel bus wires, then on alternating sides of the conductors a notch is made in the insulation. The heating element is then normally soldered to the exposed conductor wire which creates a small heating circuit; this is then repeated along the length of the cable.



MINERAL INSULATED HEATING CABLE

The range of Stainless Steel sheathed Mineral Insulated Heating Cable has been developed to meet the specific need for a cable having high temperature capacity and electrical resistance value. To meet the requirement, its combined stainless steel sheath with heating conductors enables an operating temperature up to 600 Deg C with ranging resistance value. MI Cables have excellent mechanical strength and are resistant to corrosion.

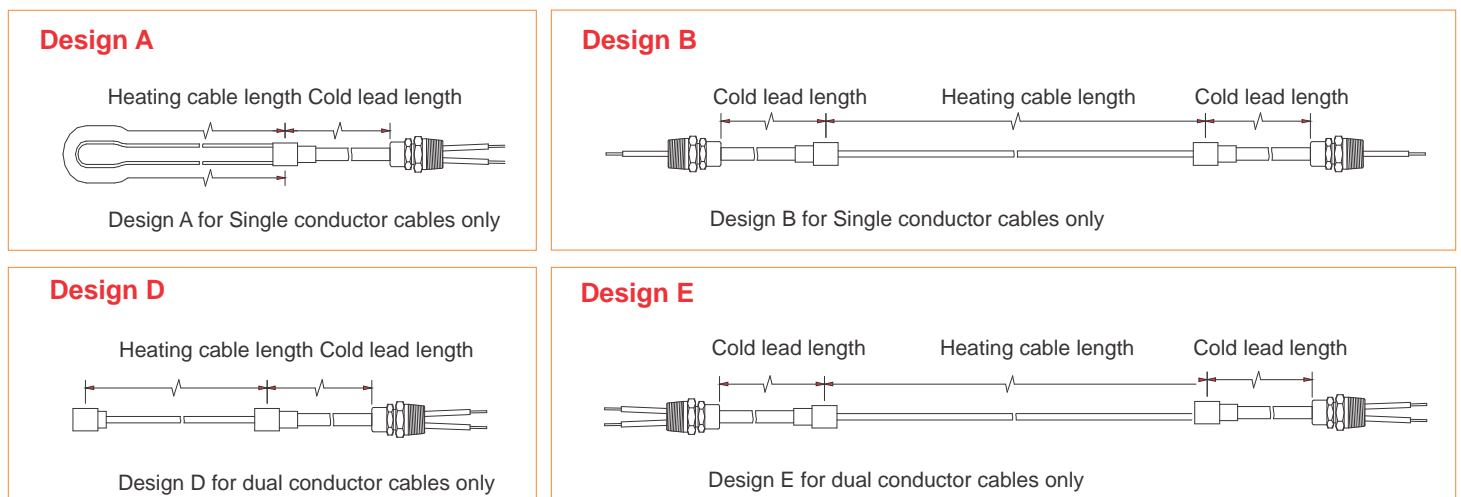
CABLE CONSTRUCTION



APPLICATIONS

Nuclear Industry --- Sodium loops	Building Industry --- Bitumen/asphalt heating
Metal Forming Industry --- Melting of low melt alloys	Tank/vessel Heating
Underfloor heating	

TABLE - 1 CABLE CONFIGURATIONS



HOPPER HEATER (TUBULAR / JACKET)

For Hoppers, process vessels, storage tanks, lube drums etc.

We supply both tubular type and jacket type hopper heaters. Jacket type hopper heater are having more life as it provides uniform heating in hoppers, vessels etc. Whereas Tubular hopper heaters are placed in a aluminium box which makes it easy to replace without removing insulation above it. So both are having their own advantages. Hence we supply both types of hopper heaters.



CONSTRUCTION

Heating jackets comprise of flexible heating elements, distributed very uniformly on to a fibreglass or quartz cloth carrier. The fibreglass or quartz cloth carrier is tailored to the shape of the vessel to be heated. Eye-lets and laces provided on the panels, ensure a snug fit of heater on the surface being heated, avoiding any air gaps. The heating elements terminate on cold leads, which are connected to the power supply. The otherside of the heating jacket is provided with insulation to avoid the heat losses and covered with Teflon coated fibreglass or silicon coated fibreglass cloth to make it waterproof and suitable for outdoor applications.



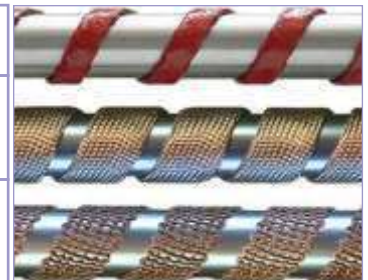
FEATURES

Uniform heating	Every close insulated distributed heating element ensures effective and uniform heating.
Highly Efficient	Heat is applied on the surface from where heat loss occurs resulting in minimal heat loss.
Easy Maintenance	Being external heating system maintenance is possible without the need for costly disturbing shutdowns.
Precise Temperature Control	Thermostatic controls associated with heaters enable very precise temperature control with minimal thermal lag.
Adaptability	The high flexibility of the carrier material enables the heaters to fit snug on complicated shapes and bends and hence suited to all shapes and sizes.
Long Life	The high flexibility also ensures good heating element contact resulting in lower element temperatures and hence long life.
Custom-built	Heating Jackets are designed to suit individual requirements incorporating cut outs to accommodate any shape and size.

FLEXIBLE HEATING TAPES

These are highly flexible in nature and are ideal for heating columns, pipes, valves and transfer lines particularly when these applications required to be observed. These heating tapes can be applied to metal pipes as well as glassware.

Length	1 Mtr.	2 Mtr.	3 Mtr.	4 Mtr.	5 Mtr.	6 Mtr.
25 mm Width	200 watts	400 watts	600 watts	800 watts	1000 watts	2000 watts
50 mm Width	400 watts	800 watts	1200 watts	1600 watts	2000 watts	4000 watts



The wattages are maximum wattages at 230V 1ph.AC. Other wattages and voltage is optional.

Heating tapes are made with nichrome wire element wound on a fibre glass core, then braided 2 times and lapped 2 times with fibreglass yarn. This element is sandwiched between two layers of fibreglass cloth with the cold leads at one end for connecting to supply point. These heating tapes can withstand up to 400°C and for 800°C application, quartz yarn and cloth will be used instead of fibreglass.

These heating tapes are available in different lengths from 1 mtr to 10 mt length with maximum 250 watts per Mtr.

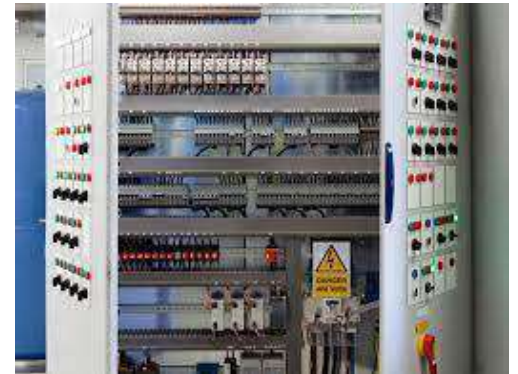
CONTROL PANEL

HEATER AND HEAT TRACER PANEL

ThermoHub assembles all types of heater and heat tracer panel. We offer all types of automated panels for heaters, heat tracers, motors through which output can be taken to PLC through RJ 45 ethernet cable / wireless sim card. We also provide VFD panels and Thyristor controls.

ALL OTHER TYPES OF CONTROL PANELS

power control center panel
motor control center panel
automatic power factor correction panel
plc automation panel
cathodic protection panel
fire detection alarm panel
relay panel
local push button switch
human machine interface
instrumentation panels



ELECTRIC HEATERS:

ThermoHub offers Immersion, Outflow & In Line Heaters for Storage Tanks and Service Tanks to raise the Temperature of contents.

Immersion Heaters

Use in tank heating, usually for stagnant liquid to heat up and maintain at certain desire temperature. Multiple heaters are used for a bigger tank dimension where heat distribution can be spread more widely. Temperature control by means of ON/OFF thermostat or contractor is adequate where precise control is not required.

Industrial immersion heaters are designed for direct contact heating of water, oils, viscous materials, solvents, process solutions and gases for many industrial heat applications. Since all heat is generated within the liquid or process, virtually 100% energy efficiency is achieved. Design temp varies according to material grade i.e SS321, INC 800, SS304, INCONEL, MAX TEMP 650° C

TYPICAL APPLICATION : Closed Drain Drum / Open Drain Drum Storage Tank s / Lube Oil Reservoir / Any other Liquid Drum.



INLINE HEATERS

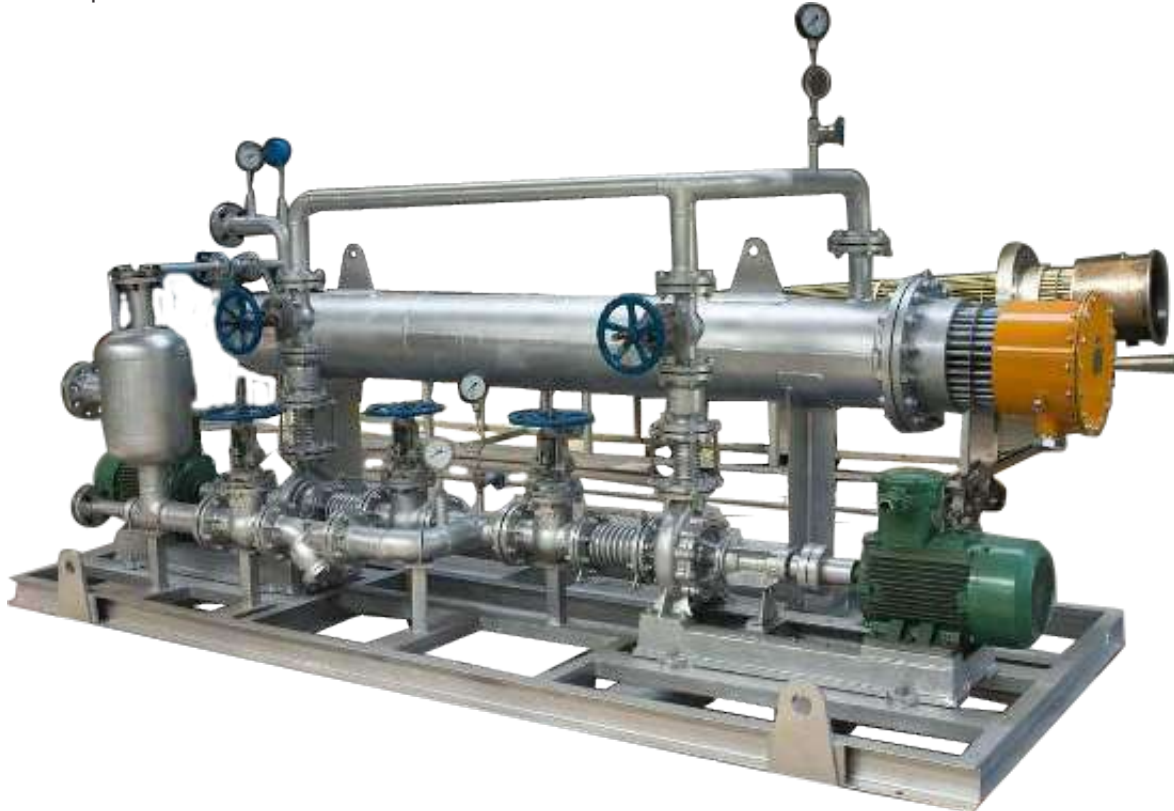
For safe Area & Hazardous Application

Process heater also refers as Inline heater which is part of Process equipments.

Complete Process heater consisting of Pressure Vessel, Heater Bundle with weather proof & Explosion proof Junction & Terminal box along with Control Panel for Safe Area.

These heater is custom made to suit specific requirements.

- Heater Power range can be from 1kW to 2MW in Single shell and up to 3MW in Double Shell.
- Elements are hermetically sealed to Protect Moisture Ingress.
- Operating temperature up to 450°C.
- Suitable to Use in Ambient Temperature of -50°C + 50°C.
- Very Low pressure drop achieved through Mesh type baffles.
- Thyristorised Control Panel.
- Explosion Proof Heater , certified for use in a Zone 1 or Class I, Div.2 and Suitable for Gas Group IIA,IIB & IIC, Class-1 Div-II and Temperature Class T1-T6.



MATERIAL OF CONSTRUCTION : • Carbon Steel (SA515, SA516 Gr 60/70) • Stainless steel (SS304, SS316,SS321 etc) • Low alloy Steel • Alloy Steel (Incoloy, Inconel)

THERMAL INSULATION



To minimize heat loss of any application, Thermal insulation is the most critical aspect for conservation of energy.

Thermicon offers complete solution for prevention of energy losses on pipes or tanks with the provision of thermal insulation. We are offering thermal insulation with diversified arrangement customized as per requirement of customer.

JACKET

Aluminium
Stainless Steel
Steel
Galvalume

INSULATION

Fiber Glass
Cellular Glass
Polyisocyanurate
Mineral Wool
Calcium Silicate
Expanded perlite

PACKING MACHINE HEATERS

ThermoHub offers complete range of Packing machine heaters used in food and pharma manufacturing industries.

Pencil Heater / Cartridge Heater

Our heaters are custom-designed for use in dies, platens, and blocks, with different wattage options available. They are known for being highly functional and dependable in the hot runner bushings, die and plates, and packaging industries.



Roller disc Heater

The roller and disc heaters are designed for heat sealing in production line packaging machinery. They are available in different materials including aluminum, mild steel, and stainless steel. The heaters feature a 5mm square section heater coil that is fitted into the roller or disc. These heaters offer efficient and reliable heat transfer for sealing applications in packaging processes.



Strip Heaters

High Density Strip Heaters offer superior heat transfer, durability, and efficiency thanks to their highly compacted refractory insulation and precise placement of resistance wire. These features allow for low internal temperature and extended service life, making them ideal for demanding applications. Their ability to quickly conduct heat from the resistance wire to the sheath ensures optimal performance and reliability, making them an excellent choice for a wide range of industrial and commercial heating applications.



U type Air Heaters

U Type Air Heaters are extensively used for heating air and gases with even heat dissipation due to the presence of fins along the tubular length. They possess mild steel fins that are copper brazed to the heating element sheath, ensuring durability and longevity. These heating elements are widely popular in industries and are suitable for a range of applications due to their efficient heating capabilities.



SPACE HEATERS

We offer space heaters for installation inside electrical control panels, distribution boxes for removing moisture which might damage electrical feeders.



Other Products : RTD, Thermostat, Aluminium tape, Fiber glass tape, .

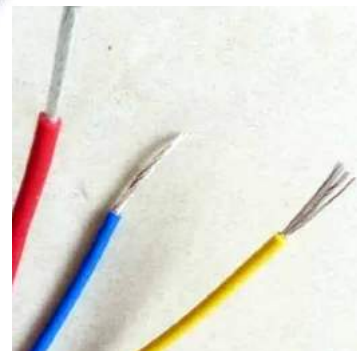
Industrial Heating Blankets

Industrial heating blankets play a crucial role in maintaining consistent temperatures during curing and thawing processes across various industries like construction, aerospace, marine, and wind energy. These blankets offer ease of installation on large surfaces, ensuring safe and uniform temperature distribution for diverse materials. Their adaptability, flexibility, and moisture resistance make them suitable for protecting valuable goods and facilitating composite material curing in different settings. It can be designed with 10mm insulation.



Resistance Heating Cables

We offer PTFE / TEFLON insulated heating cable with different resistance mostly used for mould heating in Wind blade manufacturing units. It is also used in cold store doors for maintaining temperature. We offer both silver plated copper as well as nickel plated copper. We can provide conductor resistances from 1 ohm to 550 ohms.



CERAMIC & MICA BAND HEATERS

Thermohub Ceramic band heaters feature a spiral-wound resistance coil that runs through ceramic tiles for even heating. These tiles are housed in a stainless-steel sheet with notched edges that fasten the two ends. Ceramic band heaters are an excellent choice for high-temperature applications since ceramic materials can withstand temperatures up to 2400°F.



UNDERFLOOR HEATING MATS & CABLES / DOOR HEATING CABLES

We have complete range of heating mats and cables for cold storages:

1. Underfloor heating mats for Tile/ Marble/ Concrete Floors.
2. Heating Cables for door heating.
3. Aluminium laminated underfloor heating mats.



An ISO 9001-2015 certified organisation

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