Raychem

excellence is everything

Data Center Solutions

- Leak Detection
- Heat Tracing
- Project Services

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chemelex

Advanced Leak Detection and Heat Tracing Solutions

DATA CENTER SOLUTIONS

Data Centers rely on Raychem Electric Heat Trace and Leak Detection solutions and services. Our systems ensure facility protection, performance, and winter safety throughout the design, construction, and ongoing operation and maintenance.

LEAK DETECTION SOLUTIONS

Our Raychem TraceTek water and fuel leak detection systems with sensor cables, probes and monitoring systems, let you quickly detect and pinpoint the source of a leak, allowing you to take corrective action before the leak can cause significant damage to property, data or customer goodwill.

The TraceTek leak detection system is a versatile system with many interchangeable components that can be configured as needed for each application. The broad range of TraceTek alarm modules and modular components allows you to tailor the monitoring approach and layout to the application.

With more than 10 million meters of sensing cable sold and thousands of installations completed worldwide since 1984 you can rely on Raychem TraceTek leak detection solutions for greater performance for your building.

ELECTRIC HEAT TRACE SOLUTIONS

We provide quality solutions for winter safety, comfort, and performance. From Raychem pipe freeze protection, flow maintenance for generator diesel fuel lines, de-icing roofs and gutters, and melting snow for critical entrances, you can rely on Chemelex solutions for greater winter safety, comfort, and building performance.

SERVICE SOLUTIONS

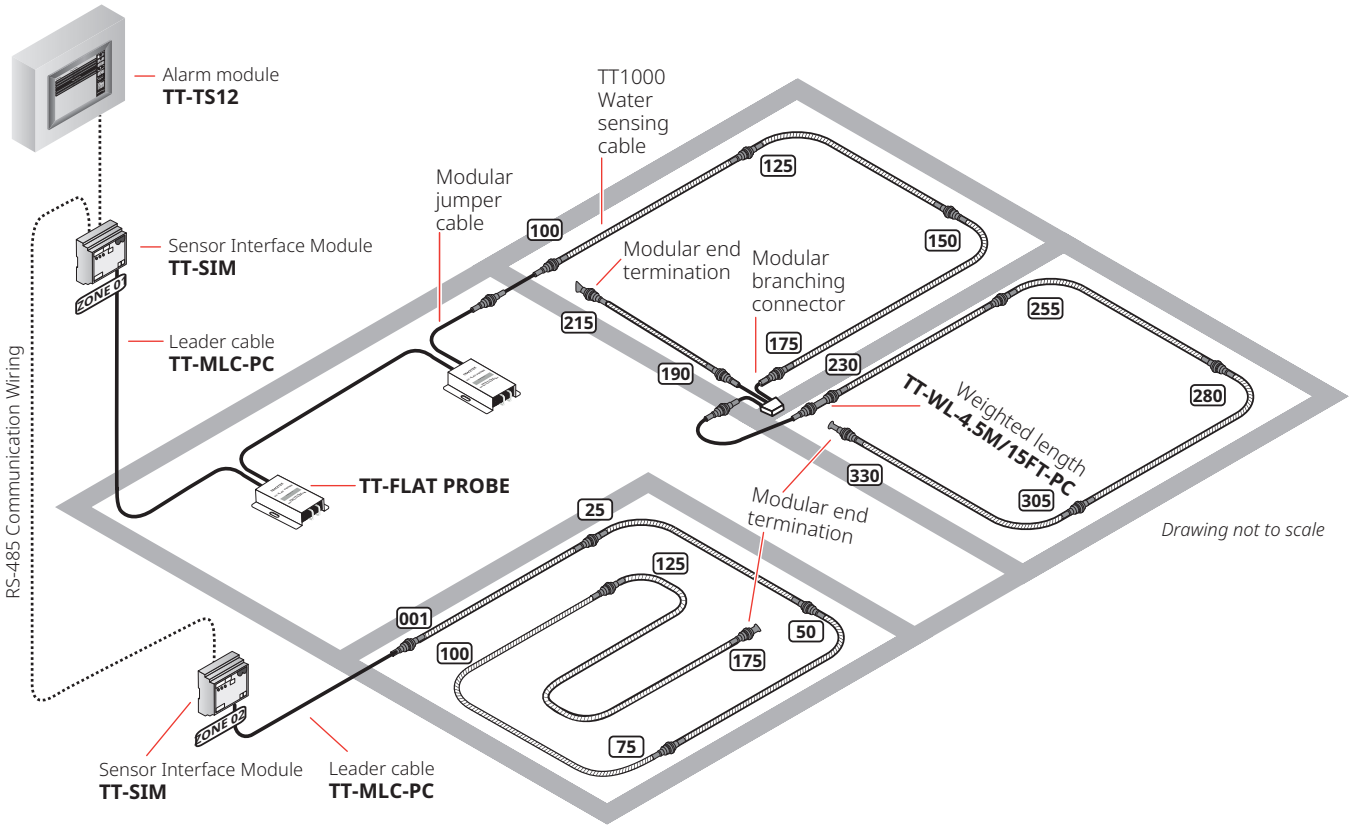
The Chemelex Projects & Services team of experts partner with you to address all types of projects, from design to installations, commissioning and ongoing service we deliver optimized solutions to enhance safety, comfort and performance. Consulting engineers can rely on our extensive capabilities and expertise in all building types to ensure every heating system and leak detection system performs per the original design specifications. Contractors can count on Chemelex to work with you to provide best-in-class deliverables to reduce risk and maximize your installation productivity.

What we offer

- Project Design
- Value Engineering
- Project Management
- Start-Up and Commissioning
- Annual Service Programs

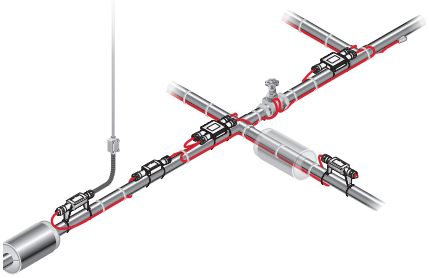
Key Applications

LEAK DETECTION



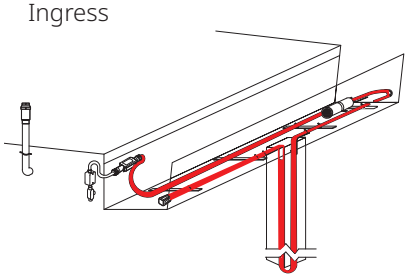
PIPE HEATING APPLICATIONS

- Freeze Protection
- Process Temperature Maintenance
- Hot Water Temperature Maintenance



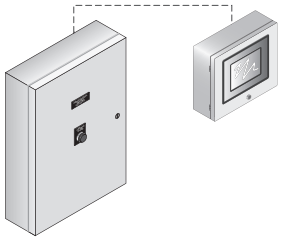
ROOF & GUTTER DE-ICING

- Prevent Ice Dams and Icicles
- Maintain Water Flow Paths
- Avoid Roof Damages due to Water Ingress



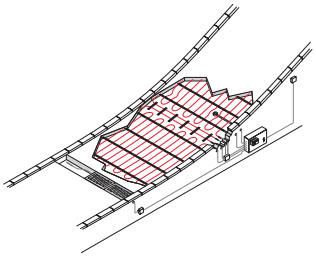
CONTROL AND MONITORING

- Smart Building Technology
- Power Distribution and Control
- Controls all Heat Tracing Applications



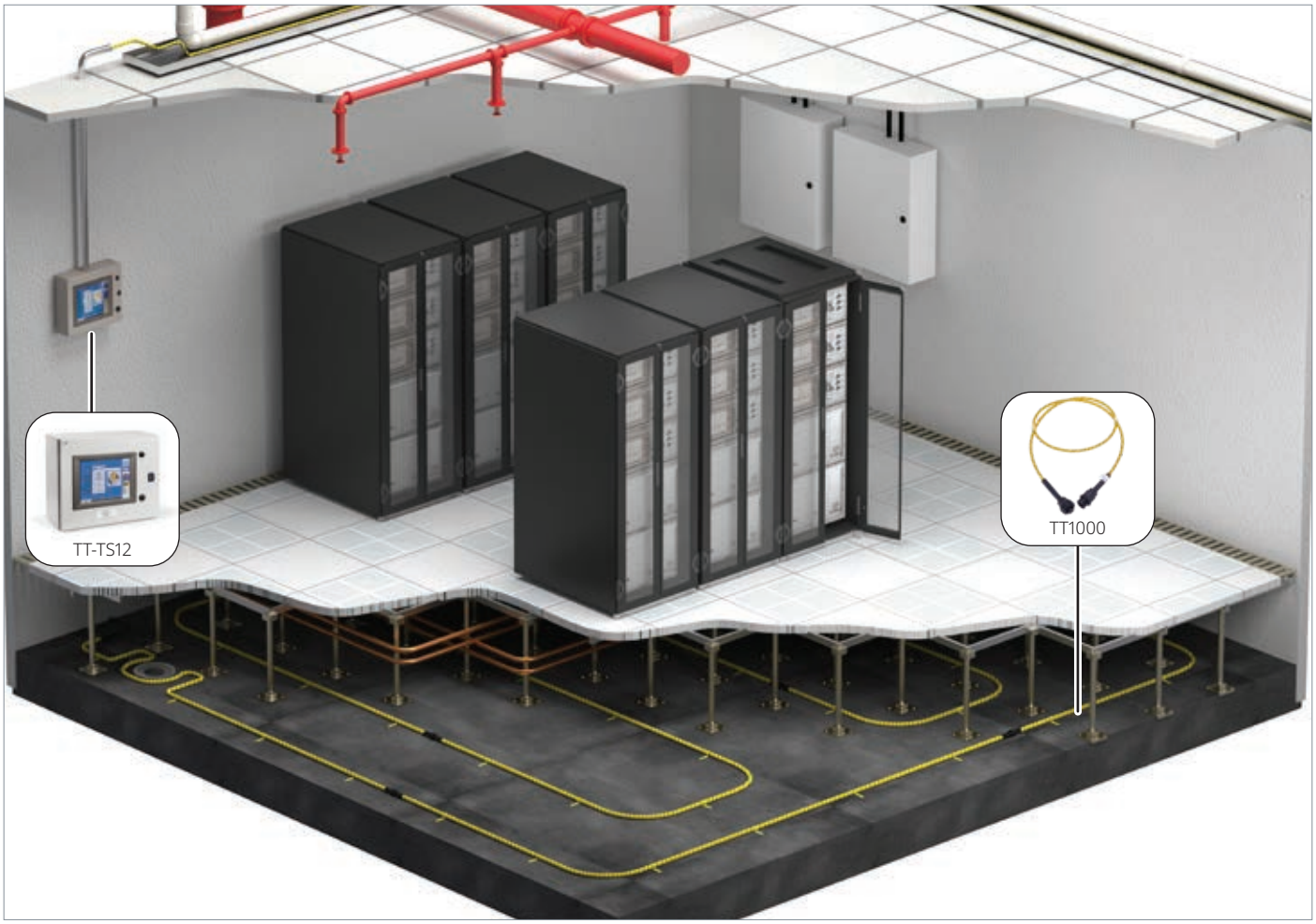
RAMP HEATING APPLICATIONS

- Keep Ramps Free of Snow and Ice
- Avoid Slipping Danger on Entrance Ways or Emergency Routes



Water Leak Detection Solutions for Data Center Applications and Server Rooms

TraceTek is installed in more than 5000 data centers worldwide



THE THREAT

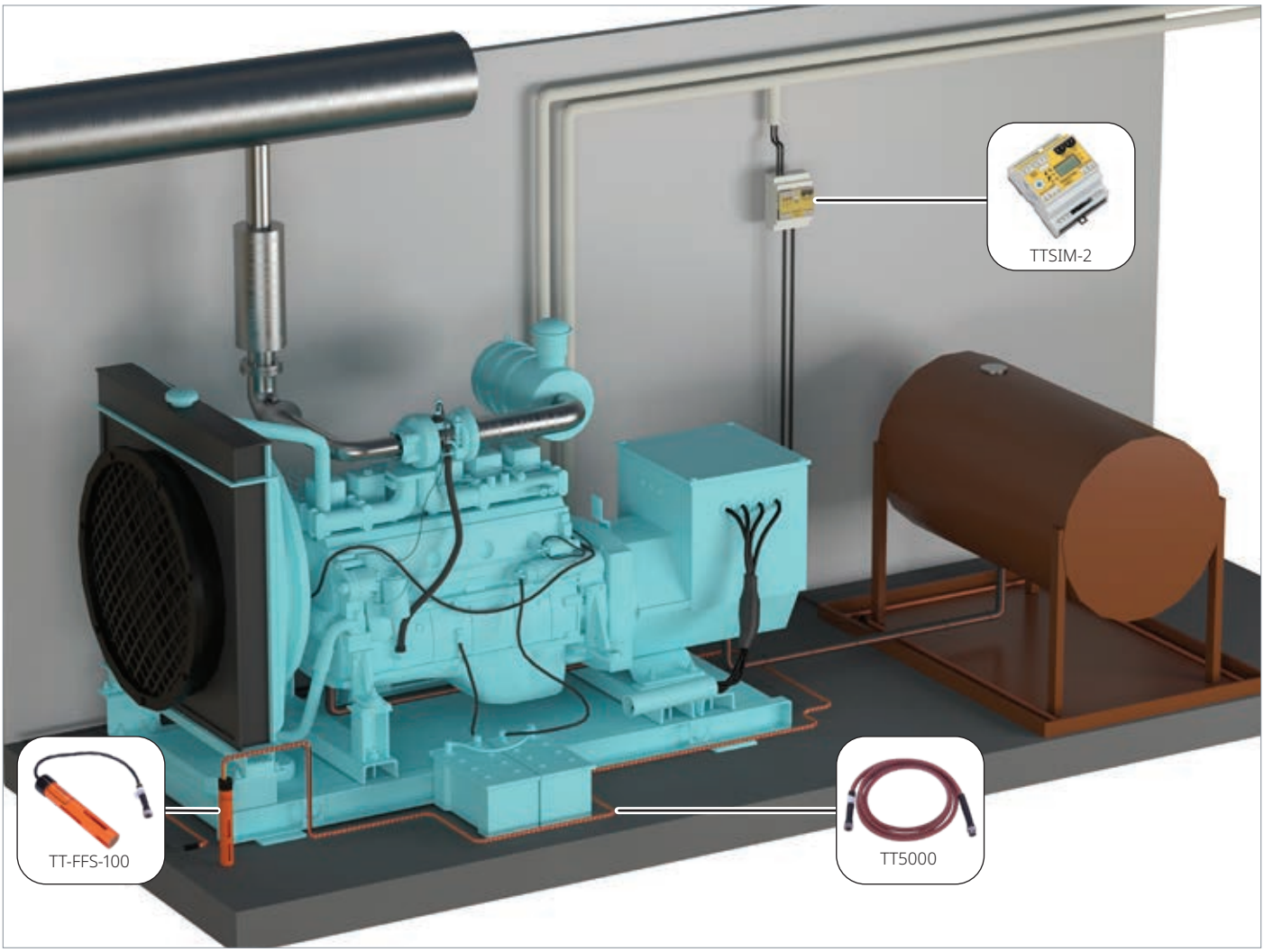
Server facilities are the nerve centers for most modern businesses. Thousands of optical and electrical connections are concentrated in a densely packed space. Racked equipment generates a large amount of heat and in order to prevent equipment failures, the heat must be extracted. The HVAC equipment must pump chilled water into and out of the facility to manage this heat extraction. However, water and electronics don't mix. Water accumulating on the floor or water dripping from overhead piping can and does interrupt and threaten server operations.

Early detection of any water leakage can get maintenance on scene in time to deal with the threat. Raised floor facilities are even more vulnerable because leakage is concealed. A water leak in a visible area might be noticed by employees but if the leak occurs beneath raised floors, the first alarm may occur when a critical system shuts down or water begins to rise through the structural floor to lower levels in the building.

The Solution

TraceTek water sensing cable detects and precisely locates any water leakage. Raychem TraceTek TT1000 sensor cable is designed to work on flat surfaces and is installed directly on the concrete slab beneath all data and power cabling. Any water leaking from HVAC units, chilled water fittings or back-up drains is detected immediately with location accuracy sufficient to pick the right floor tile. For racked equipment, TraceTek TT1100-OHP can be fitted to the underside of overhead pipe or used in drip trays.

Leak Detection Solutions for Generators and Fuel Lines



NOT ALL PIPES CONTAIN WATER

Increasingly, commercial facilities must have back-up power sources and the most common way to provide that power is with diesel powered generators. However, pumping and storing diesel fuel inside of a building introduces a risk of fire that exceeds the rapid acceleration that the water sprinkler system can control. Early detection of these fuel leaks minimizes fire risk and protects lives and building infrastructure.

THE PROBLEM

Hospitals, server facilities, large office buildings and many other commercial and institutional facilities require diesel powered back-up generators. In many older buildings, generators have been squeezed into spaces that were not originally designed for that purpose. Each generator requires a day tank, fuel pumps, valves, hose connections and similar fittings. Frequently there will be a supply and return piping connection to a larger underground diesel storage tank outside of the building footprint. An undetected diesel fuel leak presents a major fire risk and if ignited could lead to a rapidly growing fire beyond the extinguishing capacity of sprinkler systems.

The Solution

TraceTek Fast Fuel Sensor (TT-FFS) and TT5000 Fuel Sensor Cable can be deployed around the generator pad, under day tanks, in double wall pipe or trenches connecting supply and return piping, and in similar applications. The TT-FFS probe can react to the presence of diesel within a few seconds. It will detect a puddle of diesel spreading across a flat surface or a layer of diesel floating on water. TT-FFS can be tested as desired, re-used and reset after a leak encounter. The TT5000 sensor cable can monitor tens of hundreds of meters of piping and provide the same precise leak location information that is a feature of all TraceTek cables.

Advanced Heat Tracing Solutions

Chemelex is a global leader in electric thermal and sensing solutions, protecting the world's critical processes, places and people. With over 50 years of innovation and a commitment to excellence, we develop solutions that ensure safety, reliability, and efficiency in diverse environments – from industrial plants and data centers to people's homes. We deliver future-ready technologies, advanced engineering capabilities and local expertise backed by global standards. Our offering includes a leading portfolio from our trusted brands: RAYCHEM, TRACER, NUHEAT and PYROTENAX.

THE HEART OF OUR SOLUTIONS

Raychem heat trace systems offer superior reliability with the highest lifetime value at lower installed cost and lower cost of ownership. Over 1.8B feet of premium safety, performance, and comfort systems installed worldwide are protecting people, buildings, infrastructure and industry. As the inventor of self-regulating heat tracing in 1972, our Raychem solutions and services are recognized for technical leadership in the industries we serve. Our cables deliver the right amount of heat exactly when and where it is needed. As the temperature drops, more heat is produced. Conversely, as the temperature rises, less heat is produced. However, there are many more benefits:

- The smart cables can be overlapped without any risk of overheating.
- The heating cables can be cut to length 'in the field'. This means additional flexibility when plans do not correspond to the "real life" situation on site.

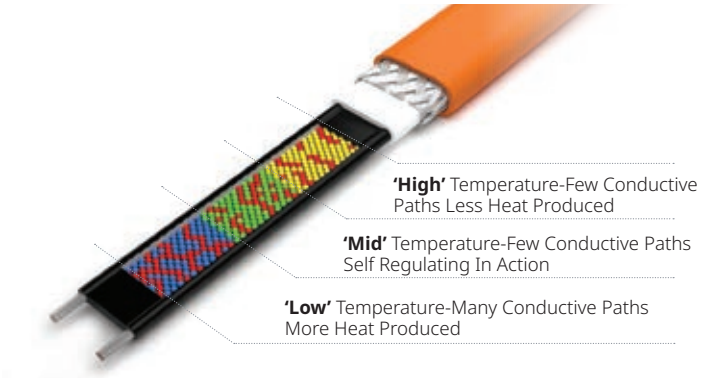
50+ years of time-tested quality, high power retention, reliability and proven performance minimizes downtime and damage while ensuring ease of use, lower installed cost, lower cost of ownership, and worry-free operation.

In addition to this product family that addresses a full range of temperature needs, we also offer other types of heating cables, control and monitoring solutions, and a full range of heating product services.

Our mineral insulated heating cables and wiring have led the industry for more than 80 years. Able to withstand extreme, harsh environments, our cables provide the most reliable heat tracing solution for high-temperature applications.

HOW SELF-REGULATION WORKS IN OUR CONDUCTIVE-POLYMER HEATERS

At higher temperatures, the polymer expands, reducing the number of electrical paths thereby reducing the power output of the cable. At low temperatures, there are many conductive paths, allowing higher level of current to flow between the bus wires. Producing the 'right amount of heat' saves you money with no wasted energy.



Tested and Qualified

Raychem heating systems are tested to the most stringent industry standards to ensure maximum reliability and performance for our customers.

FM APPROVED · UL LISTED · CSA · CE · UKCA

Robust Construction

Long service life assured advanced through modified polyolefin or fluorpolymer insulation and jacket materials.

Highest Lifetime Value

Our extensive scientific testing and field history prove that when properly installed and maintained, Raychem self-regulating cables are expected to work for many decades.

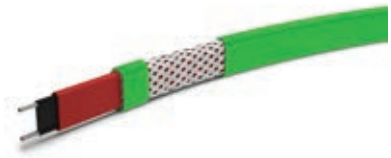
Our proven 20+ and 30+ year service life ratings are backed by our industry-leading 10 year warranty.

In 1972, the heat tracing division of the Raychem Corporation (now a part of Chemelex) patented and produced the first commercially successful electric self-regulating heat tracing cable. The technology was celebrated as the 200th induction into IEEE's historic Milestones Program in 2019. Chemelex is the proud producer of the world's #1 conductive polymer self-regulating heat tracing cable.

Protect Pipes

Unprotected pipes

10XL2-ZH



15XL2-ZH

26XL2-ZH

31XL2-ZH

Water lines and fire protection lines can freeze and burst when exposed to cold temperatures. Our systems help you prevent this.

PIPE FREEZE PROTECTION OF WATER LINES

Raychem pipe freeze protection systems are flexible and easy to attach to the exterior of the pipe to keep pipes from freezing, bursting, and causing water damage. XL-Trace LSZH (Low smoke zero halogen) systems can add a precise level of heat to prevent water pipes from freezing.

PIPE FREEZE PROTECTION OF FIRE PROTECTION LINES

XL-Trace LSZH fire sprinkler freeze protection systems can protect above ground and buried supply pipes, fire standpipes, branch lines and branch lines containing sprinklers when run in areas subject to freezing. The materials are tested and compliant with IEC60754-1 and zero halogen tests. Added to this, it provides extreme resistance under the IEC62395 flammability test and is immediately self-extinguishing, exceeding the highest test standards.

The vertical flame test included in IEC62395 is designed to test a heating cable's resistance to fire as well as its ability to prevent proliferation of the fire to other areas of the building. XL-Trace LSZH exceeds the performance of any other tested solution.

Protect Roofs, Gutters and Downpipes

Unprotected
roof and gutters

Ice dams can form on roofs, in gutters, and downpipes preventing water from properly draining which can result in water damage. Heavy icicles can fall and cause serious injury. Standing water can leak through to interior walls and furnishings. Our systems help you protect roofs, gutters, and downpipes.

ROOF & GUTTER DE-ICING – GM-2X(T)

The Raychem GM-2X and GM-2XT heating cables are advanced, high performing, specified roof & gutter de-icing solutions ideal for commercial buildings exposed to heavy winter weather. It can be cut to length for easy installation in plastic, copper, steel, or aluminum gutters, and on flat or pitched roofs, valleys and overhangs. The low operating temperature of the heating cable also makes it safe for use on modern membrane roofs. Multiple accessories and components are available to complete and facilitate the overall installation of this solution.

GM-2X(T) self-regulating
heating cable

ROOF & GUTTER DE-ICING FOR FLAT ROOFS AND DRAINPIPES – RIM DRAINTRACE (RIM-DT) SYSTEM

Raychem RIM-DRAINTRACE KIT keeps your flat roof drain free of snow and ice. Its unique design will transfer the heat efficiently to the snow and will keep the area around the roof drain free of snow and ice. It can be retrofitted to new or existing flat roof drains. The kit comes with the aluminium roof panels and a preterminated GM-2XT cable.

RIM-DRAINTRACE KIT

Projects & Services

The Chemelex Projects & Services team of experts partner with you to address all types of projects, from **buildings** to complex **infrastructure,** delivering optimized solutions to enhance safety, comfort and performance. For **consulting engineers,** you can rely on our extensive capabilities and expertise in all building types to ensure every heating system performs per the original design specifications. For **contractors,** you can count on Chemelex to provide best-in-class deliverables to reduce risk and maximize your installation productivity.

Front End
Evaluation & Optimization

- Work with design team on Leak Detection and/or Heat Trace for piping and building envelope
- Conceptual design
- Preliminary budget and schedule

Engineering & Design

- Scope review and project kick off meeting with contractors and GC
- System design (Leak Detection & Heat Trace)
- Isometrics
- Plot plan
- Heat tracing calculation and electrical load schedules
- Total Bill-Of-Materials

Procurements & Buyouts

- Manufacturing
- Procurement of:
  - Electrical panels
  - Cold scope (power distribution & controls)
- Material deliveries on site begin

Training & Installation

- Project design review with project team
- Training at the site of all involved contractors
  - Scope review
  - Installation training
  - Trade coordination

Commissioning & Start-Up

- Inspection & final testing
- Approvals
- Warranties
- Owner Training
- Start-up assistance

Turn over & Maintenance

- Annual audits
- Assistance in system redesigns as the facility's needs evolve

Beyond front end assistance of proposals, engineering and design, the Projects & Services team can be there every step of the way through construction and installation, to commissioning and post installation services.

Why Choose Raychem Solutions

TIME-TESTED QUALITY

QUALITY

We are the **inventor** of self-regulating heating technology. Our cables are designed & manufactured in USA since 1972.

We offer complete systems

20+ year design life

10-year product warranty

First low smoke zero halogen cable

100+ expert designers
15,000+ Certified installers

EXPERTISE

We have a **global network of technical experts** with design, installation, optimization and operation knowledge.

Design, calculation and modeling software

100+ expert designers

15,000+ trained installers

Installed in iconic engineering landmarks

600,000 km (2b ft) installed
= 15x around the globe

RELIABILITY

Our systems provide maximum performance with 600,000 km of cable installed in 100+ countries.

Reduction of carbon footprint

Reduction of energy, water, and landfill waste

Lower installed cost

Broad range of heating cable technologies

Highest **QUALITY** Products + **EXPERTISE** Optimal System Design & Installation = **RELIABLE** Protection, Performance & Energy Efficiency

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