



Raychem



TRACER

MAINTENANCE, REPAIR, OPTIMIZATION (MRO) HEAT MANAGEMENT SERVICES

THERMAL MANAGEMENT SOLUTIONS

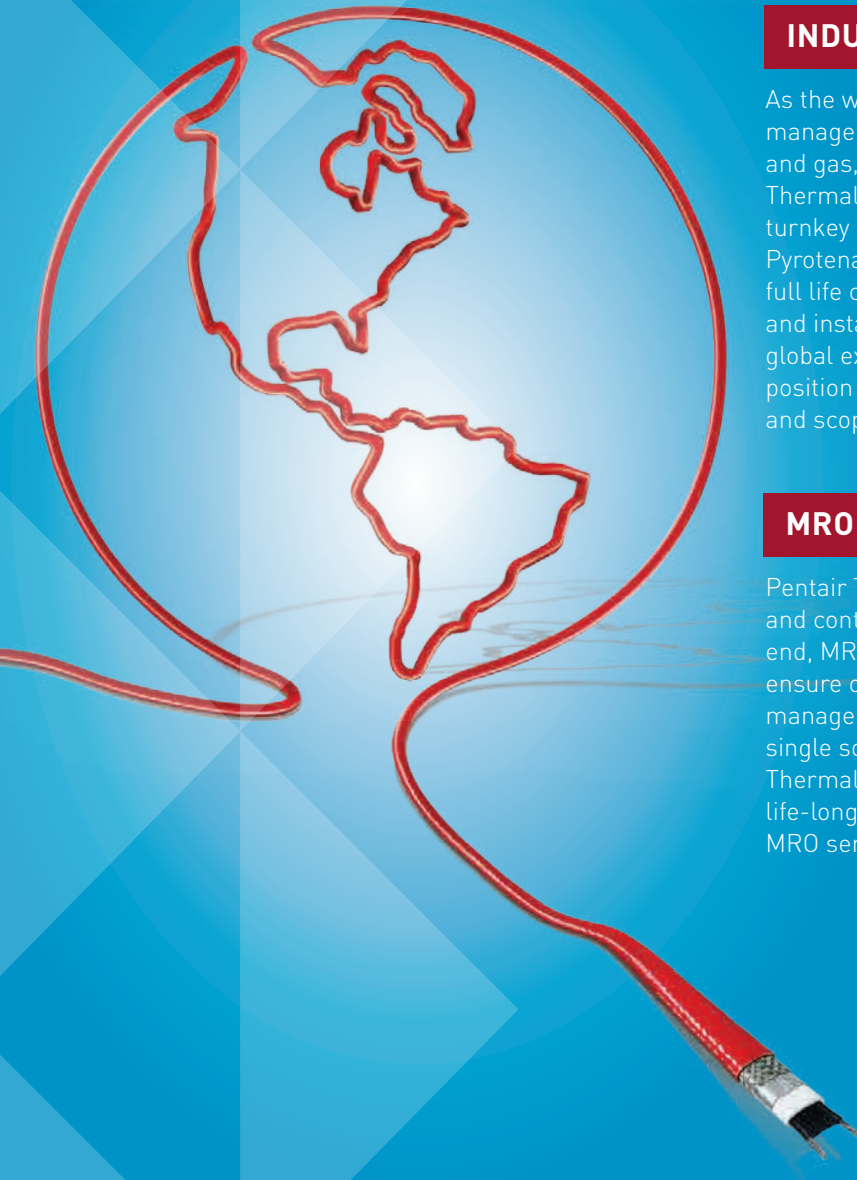
WWW.PENTAIRTHERMAL.COM

INDUSTRIAL SOLUTIONS

As the world's largest provider of complete electrical heat management systems, primarily for the general process, oil and gas, chemical, and power generation industries, Pentair Thermal Management provides innovative products and turnkey solutions under market-leading brands—Raychem, Pyrotenax, and Tracer. Our premiere turnkey solutions include full life cycle support—ranging from front-end engineering and installation to maintenance and operation services. Our global experience and office presence in 48 countries uniquely position us to manage the heat needed for projects of any size and scope.

MRO SERVICES

Pentair Thermal Management is committed to quality and continuous improvement in everything we do. To this end, MRO services are designed to preserve, maintain and ensure optimized performance for your existing heat management system. As the industry leader in offering single source responsibility in heat management, Pentair Thermal Management is uniquely qualified to provide life-long support for your heat-tracing systems with MRO services.



MRO SERVICES

BENEFITS

- Valuable resources are unconstrained to focus on your core site duties
- Reduced probability of unplanned process shut-downs through proactive maintenance
- A single point of responsibility and accountability for total care of your HMS
- Specialized MRO expertise and local support
- Optimized solutions for capital returns
- Award-winning safety practices
- Best-in-class products and services



SYSTEM REVIEW

System Review is typically done prior to any contract signing. This detailed system review allows us to establish a benchmark understanding of your heat management system (HMS) while identifying critical site observations such as weakest links and recommendations for maintenance, repair and optimization (MRO) of your heat management system.



BASIC CONTRACT

Pre-Season Freeze Protection Start-Up

We conduct pre-season force-on testing to verify the parameters of freeze protection circuits in order to eliminate the potential interruptions caused by improper functioning of these circuits at the first onset of cold weather.

Spare Parts Management

We work with you to analyze and identify the critical spare parts needed to keep your HMS operational. This service ensures proper management of long lead-time/vulnerable HMS spare parts which serves to minimize future downtimes and ensures timely repairs of your system.

STANDARD CONTRACT

Includes the Basic Contract plus:

Preventative Maintenance Audit

We conduct a systematic inspection and diagnosis of all elements of your HMS, such as thermal insulation, control and monitoring equipment, power distribution panels, heat-tracing cable and connection kits. These maintenance inspections can increase the life of the system and minimize process interruptions of HMS component failures.

Personnel Training

Our Pentair Thermal Management experts will perform customized in-person training on heat-tracing technologies, design, installation, programming, commissioning and troubleshooting. The training not only prepares you to make educated decisions when problems arise, but also increases your awareness about the latest solutions available for your future HMS needs.

FULL CONTRACT

Includes the Standard Contract plus:

Documentation Administration

We completely review, update and / or create your HMS documentation such as isometric drawings and control panel drawings to reflect current as-built status in the field. Up-to-date documentation minimizes costly downtime by ensuring efficient troubleshooting and improving personnel safety in the field.

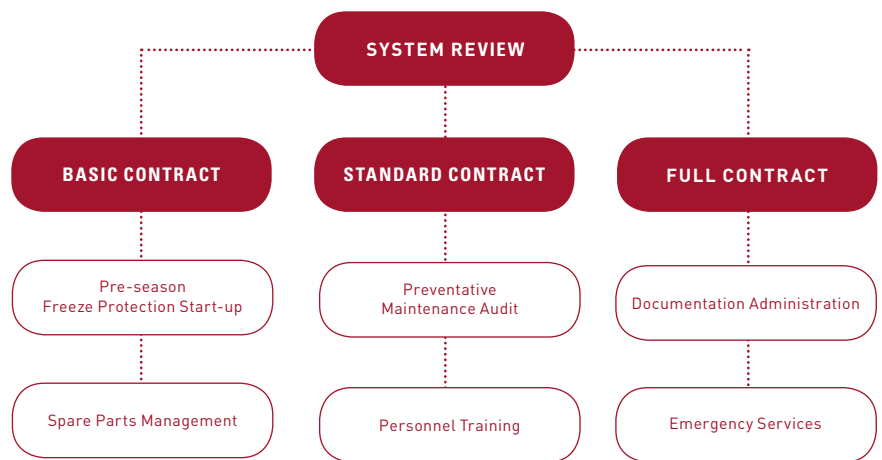
Emergency Services

We guarantee prompt HMS emergency repairs and disaster recovery services. Your HMS will be taken care of with priority while minimizing your downtime.



MRO service elements are highly differentiated as they are designed to oversee the entire heat management systems (HMS) including heat tracing, control and monitoring, utility distribution and thermal insulation systems. The bundled services deliver unparalleled value to protect and extend the life of your HMS while **freeing up your valuable resources for core site duties**.

The MRO service components are flexible. You can select different contracts based on your needs. However, the full value of these services is realized when they are combined into one comprehensive MRO program for your HMS.





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