

# ALL YOUR HEAT TRACING NEEDS

ELECTRIC HEAT TRACING • HEATED TUBING BUNDLES • STEAM TRACING



**THERMON The Heat Tracing Specialists®**

# **THERMON HAS A SOLUTION FOR ALL YOUR HEAT TRACING NEEDS**

Thermon engineers and specialists located throughout the world ensure that all factors are considered. Thermon can provide detailed design engineering, project management with project drawings and documentation, commissioning and maintenance.



INITIAL PLANNING



DESIGN / ENGINEERING



PROJECT MANAGEMENT



MANUFACTURING



COMMISSIONING



MAINTENANCE



**The Heat Tracing Specialists®**

## THERMON OFFERS COMPLETE SOLUTIONS



Thermon can help you with all aspects of heat tracing for pipes, vessels, instrumentation and other process equipment. Together we can ensure that materials selection, circuit layout, installation and operating costs will all be considered for **your** particular application.

From initial planning stages through installation and final commissioning, Thermon provides a total systems approach precisely tailored to meet **your** heat tracing needs.

## OPTIMIZED SYSTEMS PROVIDE LOWEST TOTAL COST OF OWNERSHIP

Solely focused on the heat tracing industry since 1954, Thermon's experience will ensure that all factors are considered. Thermon can include detailed design engineering and project management with project drawings, documentation, commissioning, site audits and maintenance.

We can help you make informed decisions about the heat tracing options available to you based on materials, installation, maintenance and operating costs.



# OIL & GAS INDUSTRIES

Thermon provides heat tracing solutions to the petroleum industry in the upstream, midstream and downstream components of oil and gas production, processing, storage, and distribution. The upstream sector requires elevated temperatures to move the crude oil and/or raw natural gas to the surface. The downstream sector requires winterization to the refining, petrochemical, and distribution of the products.

EXPLORATION AND PRODUCTION  
OIL SANDS  
GAS PROCESSING  
HEAVY OILS AND SYNFUELS  
PETROCHEMICAL AND CHEMICAL  
REFINING  
STORAGE TERMINALS



**The Heat Tracing Specialists®**

# ELECTRICAL POWER GENERATION

Thermon is a world leader in providing heat trace solutions in the power generation industry. Heat tracing needs vary from providing winterization for steam and water lines, to maintaining fly-ash hoppers and “CEMS” sample lines above the flue gas dew point, to providing solutions for critical post accident applications in the nuclear industry. Equipment must operate reliably in order to produce energy and maintain control of the plant. Thermon expertise and experience is unparalleled.

COAL FIRED & “RESOURCE RECOVERY” PLANTS  
COMBINED CYCLE COGENERATION  
NUCLEAR POWER GENERATION  
SOLAR THERMAL POWER  
GEOTHERMAL POWER



# THERMON HAS A SOLUTION FOR ALL YOUR ELECTRIC HEAT TRACING NEEDS

Whatever the application - freeze protection, high temperature maintenance or sensitive process analyzer lines - Thermon's complete line of products provides superior heat tracing solutions.

## Process Lines

- Complex Piping
- Long Transfer Lines

## Tank Heating

- Vessel Heating
- Tank Foundation Heating
- Hopper Heating

## Process Instrumentation

- Flow, Level and Pressure Transmitters
- "CEMS" Continuous Emissions Monitoring Systems
- Process Analytical Sample Lines

**Thermon**  
Electric Heat Tracing Cables



**TubeTrace®**  
Heated Instrument Tubing



**TubeTrace®**  
Analytical/CEMS Bundles



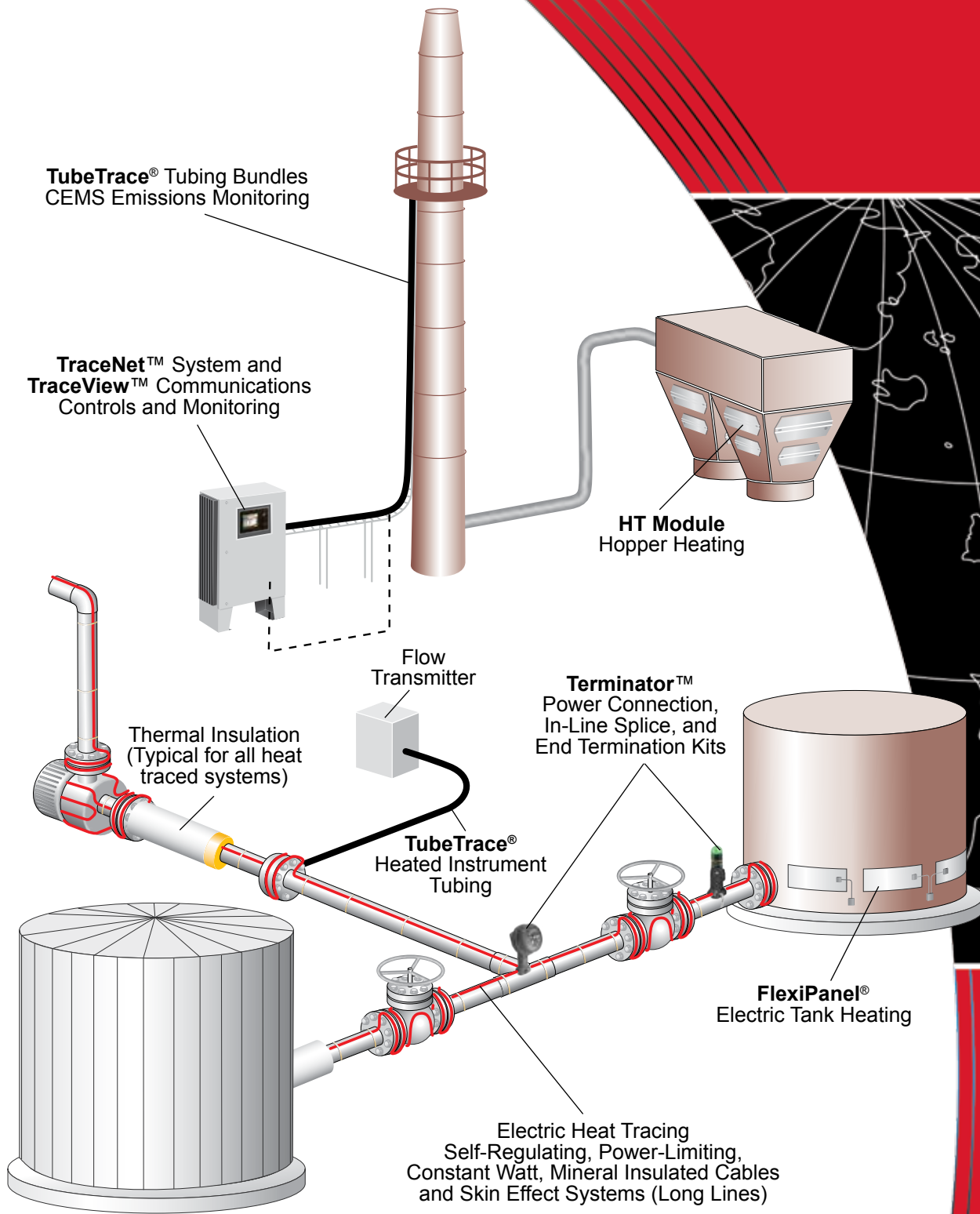
**FlexiPanel®**  
and HT Module  
Surface Heaters



**Controls and Monitoring**  
Electronic and Mechanical



**The Heat Tracing Specialists®**



**TubeTrace®** Tubing Bundles  
CEMS Emissions Monitoring

**TraceNet™** System and  
**TraceView™** Communications  
Controls and Monitoring

**HT Module**  
Hopper Heating

Flow  
Transmitter

Thermal Insulation  
(Typical for all heat  
traced systems)

**Terminator™**  
Power Connection,  
In-Line Splice, and  
End Termination Kits

**TubeTrace®**  
Heated Instrument  
Tubing

**FlexiPanel®**  
Electric Tank Heating

Electric Heat Tracing  
Self-Regulating, Power-Limiting,  
Constant Watt, Mineral Insulated Cables  
and Skin Effect Systems (Long Lines)

# ELECTRIC HEAT TRACING

# THERMON OFFERS A STEAM TRACING SOLUTION FOR EVERY APPLICATION

Steam applications range from freeze protection to maintaining temperatures close to that of the steam itself. “Thermonized” systems also provide predictable operation and maintenance that process plants demand.

- Process Lines, Utility Piping and Equipment
- Instruments and Analyzer Lines
- Tank Heating

**SnapTrace®** and  
Heat Transfer Compounds



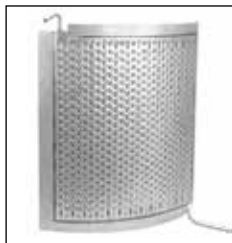
**TubeTrace®**  
Heated Instrument Tubing



**SafeTrace®**  
Isolated Tracers



**HeetSheet®**  
Steam Tank Heating



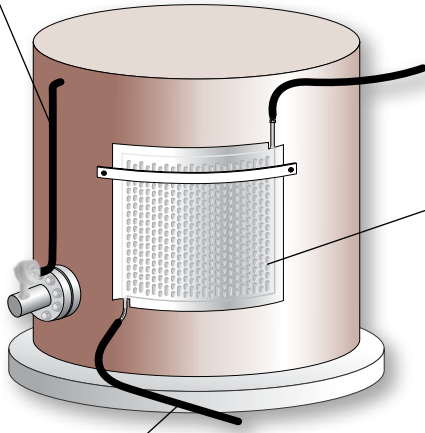
**ThermoTube®**  
Pre-Insulated Tubing



**The Heat Tracing Specialists®**

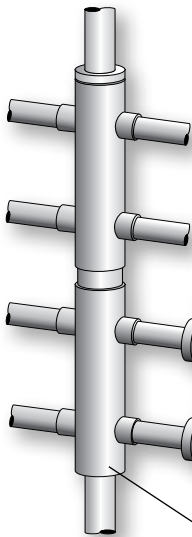


**TubeTrace®**  
Heated Tubing for  
Level, Flow and  
Pressure Instruments

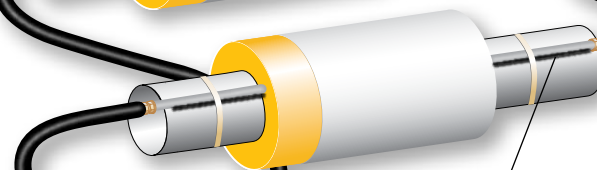
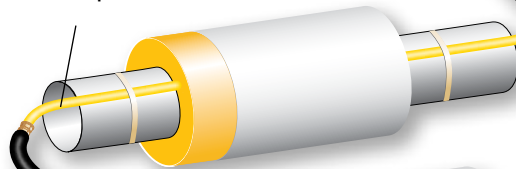


**HeatSheet®**  
Steam Tank Heating

**ThermoTube®**  
Supply/Return Lines



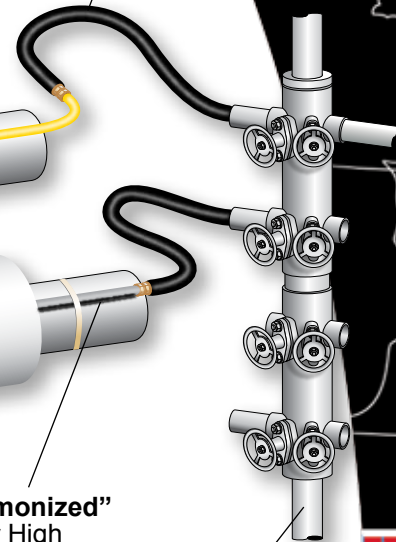
**SafeTrace®**  
Isolated Tracing for  
Low Temperatures



**"Thermonized"**  
for High  
Temperatures

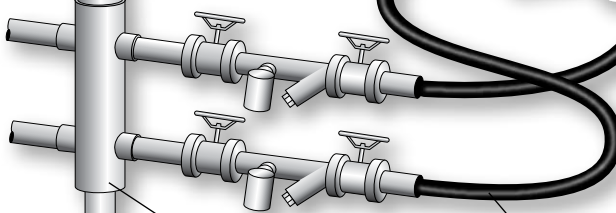
**ThermoTube®**  
Steam Supply

**ThermoTube®**  
Steam Supply



**Condensate  
Return Manifold**

**ThermoTube®**  
Condensate Return Lines



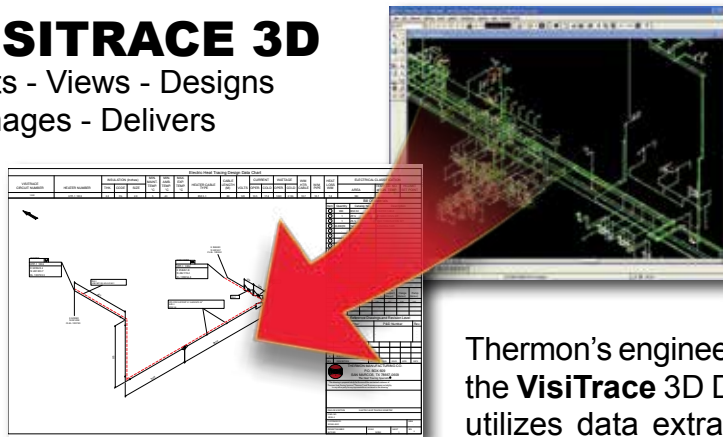
# MAINTAIN DIFFERENT TEMPERATURES WITH ONE STEAM PRESSURE

## DESIGN TOOLS

Thermon has developed sophisticated, yet easy-to-use software packages that provide detailed design and performance information for electric and steam tracing. Users of **CompuTrace**<sup>®</sup> are able to input design data into the program and obtain detailed system and thermal performance information.

## VISITRACE 3D

Sorts - Views - Designs  
Manages - Delivers

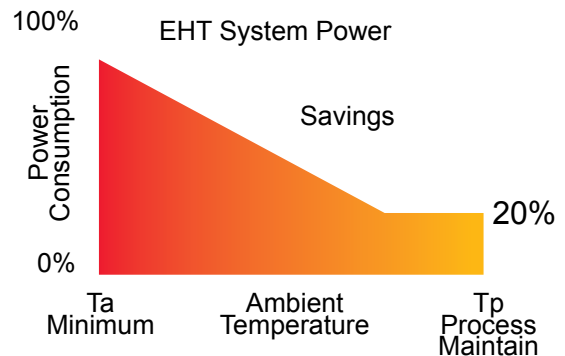


Thermon's engineering capabilities also include the **VisiTrace 3D** Design System. This system utilizes data extracted directly from the customer's 3D model database, automating the heat tracing design from start to finish. This allows Thermon to reduce client engineering man-hours to design large projects and provide "as-built" drawings in much less time.

## ENERGY CONSERVATION = LOWER OPERATING COSTS

Heat tracing systems are not often a priority when energy reduction initiatives are being considered. However, when the total heat tracing load in a large system is considered, savings can be significant.

### Energy Consumption with APC \*



\* APC: Ambient Proportional Control



**The Heat Tracing Specialists<sup>®</sup>**

## WORLDWIDE APPROVALS

Every product must undergo a multitude of performance tests including stability and long-term reliability. All products are further tested and certified by major approval agencies to verify compliance to international industry standards.



DNV LLoyds GGTN TIIS CQSTEx ABS

For the continued advancement of heat tracing technology, Thermon actively participates in professional organizations such as those listed below.



## GLOBAL PRESENCE

Thermon engineers and specialists located throughout the world provide design, product selection, installation packages, training and supervision, and commissioning. These dedicated professionals take projects from conception through completion and review each project's needs to make recommendations based on specific applications and code requirements.

Thermon is committed to measurable contributions in health, safety and environmental aspects of our products, services, and operations. To realize this, all Thermon operations and employees work together to protect our environment and the health and safety of our customers, employees, and neighbors around the world.

