

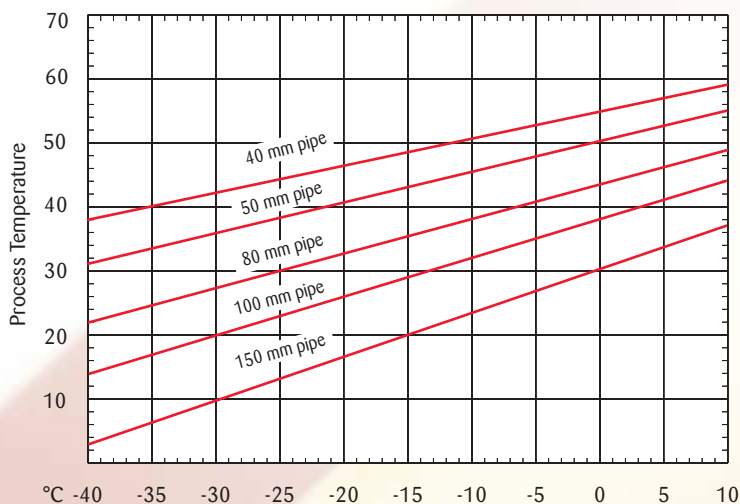
SafeTrace™ Isolated Steam Tracers

For over four decades Thermon has helped heat tracing customers get more heat out of their steam tracer tubing. Today many heat tracing customers are demanding less—heat that is! To meet these demands, Thermon created a family of isolated steam tracers, SafeTrace, specifically designed to winterize pipes while reducing burn risks and decreasing steam consumption when compared to conventional bare tube steam tracing. Additionally, SafeTrace steam tracing tubes provide accurate and predictable heat transfer properties necessary to maintain temperature-sensitive or corrosive products.

SafeTrace steam tracers are designed to be easily installed without the need for channels, spacer blocks or metallic attachment bands. The tracers are simply attached to the pipeworks or vessel with a temperature-rated adhesive tape.

Two SafeTrace versions (DLS and SLS) can be installed continuously from the steam supply header, along the heat-traced line and continue to the condensate return manifold. SafeTrace makes this possible through a composite construction (patent pending) that culminates with a safety yellow polymer jacket.

Typical Pipe Temperatures With SafeTrace DLS-IT
Ambient Temperatures, Wind Load 40 km/hr



Given: 1 barg steam @ 121°C
Insulation is 25 mm thick mineral wool

Increased Safety

- SafeTrace IT tracers comply with ASTM Std C-1055 for skin exposure temperatures of less than 58°C when in contact with a hot surface for five seconds.
- Safety yellow jacket alerts plant personnel to inherently dangerous materials such as steam per ASME/ANSI A13.1-1996.

Precise Heat Transfer

- Permits winterization for any size of pipe.
- Provides predictable temperature control.
- Eliminates hot/cold spots associated with bare metal tracers and spacer blocks.
- Prevents damage to temperature-sensitive or corrosive products.

Reduced Costs

- Installed Cost
 - 1/3 less labor than spacer blocks
 - Reduces number of trap stations
 - Installs with tape
 - Eliminates need for transition lines and fittings
- Operating/Maintenance Costs
 - Reduce steam usage by 20% to 50%
 - Fewer fittings cut maintenance and repair



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ISO 9001
REGISTERED

Specifications/Ratings



SafeTrace DLS-IT

Available tube diameters 3/8" and 10 mm
 Available tube materials copper & stainless steel
 Typical pipe temperature range 5°C to 54°C
 Maximum exposure temperature 215°C
 Minimum installation temperature -40°C
 Maximum recommended steam pressure .. 17 barg
 Skin contact temperature <58°C

**DLS-IT vs. Bare Metal Tube
Energy Consumption Comparison**

Pipe Size mm	Bare Tracer °C	DLS-IT °C	Temp. Difference °C	Energy Savings
50	101	66	35	22%
100	84	49	35	31%
150	67	37	30	37%
200	56	28	28	39%

Design Conditions: Maintain 10°C, Low Ambient -20°C, Insulation 40 mm Mineral Wool, Steam 3.5 barg, Bare tracer is 10 mm OD tubing. Energy savings is based on 15°C annual mean temperature.



SafeTrace SLS-IT

Available tube diameters 3/8" and 10 mm
 Available tube materials copper & stainless steel
 Typical pipe temperature range 24°C to 93°C
 Maximum exposure temperature 215°C
 Minimum installation temperature -40°C
 Maximum recommended steam pressure .. 17 barg
 Skin contact temperature <58°C

**SLS-IT vs. Bare Metal Tube
Energy Consumption Comparison**

Pipe Size mm	Bare Tracer °C	SLS-IT °C	Temp. Difference °C	Energy Savings
150	67	47	20	26%
200	56	35	21	29%
250	49	29	20	31%
300	44	24	20	32%

Design Conditions: Maintain 10°C, Low Ambient -20°C, Insulation 40 mm Mineral Wool, Steam 3.5 barg, Bare tracer is 10 mm OD tubing. Energy savings is based on 15°C annual mean temperature.



SafeTrace BTS

Available tube diameters 3/8" and 10 mm
 Available tube materials copper & stainless steel
 Typical pipe temperature range 38°C to 121°C
 Maximum exposure temperature 215°C
 Minimum installation temperature -40°C
 Maximum recommended steam pressure .. 17 barg

**BTS vs. Bare Metal Tube
Skin Contact Temperature**



Skin temperature after 5-second contact with tracer.
BTS provides equivalent thermal performance to bare tracing.

