



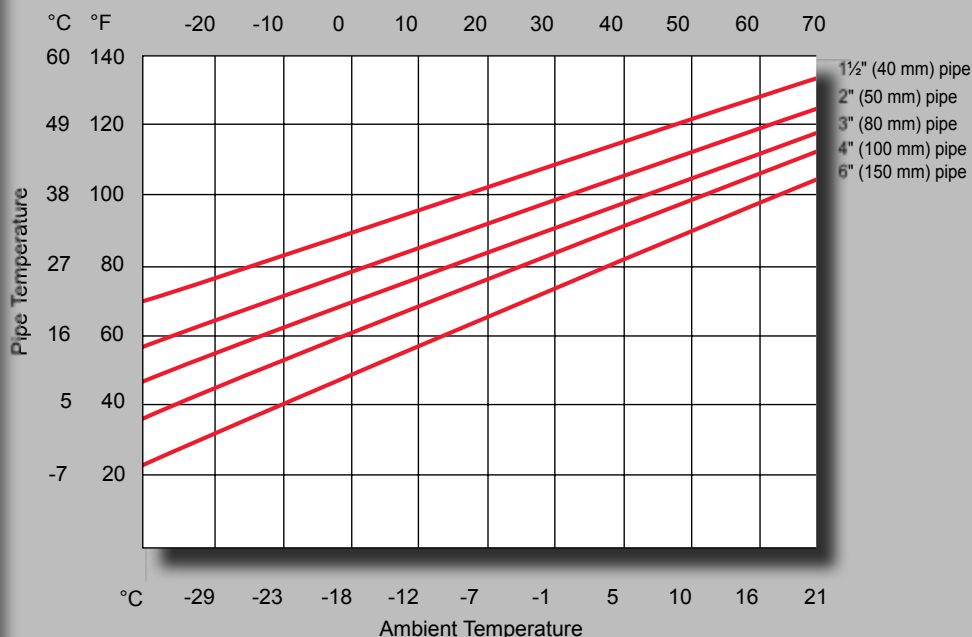
SafeTrace™ Isolated Steam Tracers

Thermon created the SafeTrace family of isolated steam tracers specifically to winterize pipes while reducing burn risks it also decreases 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.

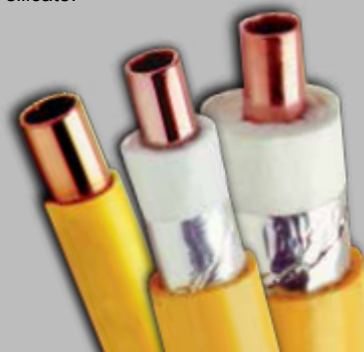
SafeTrace steam tracers are designed to be easily installed without the need for channels, spacer blocks or metallic banding. The tracers are simply attached to the pipe or vessel with a high temperature adhesive tape.

Two SafeTrace versions (DLS and SLS) can be installed from the steam supply header, along the heat-traced line and continue to the condensate return manifold without splices or fittings. SafeTrace makes this possible through a composite construction (patent pending) that includes a safety yellow polymer jacket.

Typical Pipe Temperatures With SafeTrace DLS-IT
Ambient Temperatures
Wind Load 25 mph (11 m/sec)



Given: 15 psig (1 bar) steam @ 250°F (121°C).
Insulation is 1" (25 mm) thick calcium silicate.



SafeTrace Isolated Trace Provides . . .

Increased Safety

SafeTrace IT tracers comply with ASTM Std C-1055 for skin exposure temperatures of less than 136.4°F (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 most any size of pipe.

Provides predictable temperature performance.

Eliminates hot/cold spots associated with bare metal tracers and spacer blocks.

Reduces the risk of over heating temperature-sensitive or corrosive products.

Reduced Costs

Installed Cost

- 1/3 less labor than spacer blocks
- Reduces number of trap stations
- Install with tape
- Can eliminate need for transition lines and fittings

Operating/Maintenance Costs

- Reduce steam usage by 20% to 50%
- Fewer fittings reduces maintenance and repair

SafeTrace DLS-IT



Specifications/Ratings . . .

Available tube diameters 3/8" and 10 mm
 Available tube materials copper & stainless steel
 Typical pipe temperature range 40°F to 130°F
 (5°C to 54°C)
 Maximum exposure temperature 420°F (215°C)
 Minimum installation temperature -40°F (-40°C)
 Maximum recommended steam pressure 250 psig
 (17 bar)

SafeTrace SLS-IT



Specifications/Ratings . . .

Available tube diameters 3/8" & 1/2"
 and 10 mm & 12 mm
 Available tube materials copper & stainless steel
 Typical pipe temperature range 75°F to 200°F
 (24°C to 93°C)
 Maximum exposure temperature 420°F (215°C)
 Minimum installation temperature -40°F (-40°C)
 Maximum recommended steam pressure 250 psig
 (17 bar)

SafeTrace BTS



Specifications/Ratings . . .

Available tube diameters 3/8" & 1/2"
 and 10 mm & 12 mm
 Available tube materials copper & stainless steel
 Typical pipe temperature range 100°F to 250°F
 (38°C to 121°C)
 Maximum exposure temperature 420°F (215°C)
 Minimum installation temperature -40°F (-40°C)
 Maximum recommended steam pressure 250 psig
 (17 bar)

DLS-IT vs. Bare Metal Tube Energy Consumption Comparison

Pipe Size in (mm)	Bare Tracer °F (°C)	DLS-IT °F (°C)	Temp. Diff. °F (°C)	Energy Savings
2 (50)	193 (89)	118 (48)	75 (41)	24%
4 (100)	159 (71)	87 (31)	72 (40)	35%
6 (150)	120 (49)	70 (21)	50 (28)	42%
8 (200)	101 (38)	57 (14)	44 (24)	44%

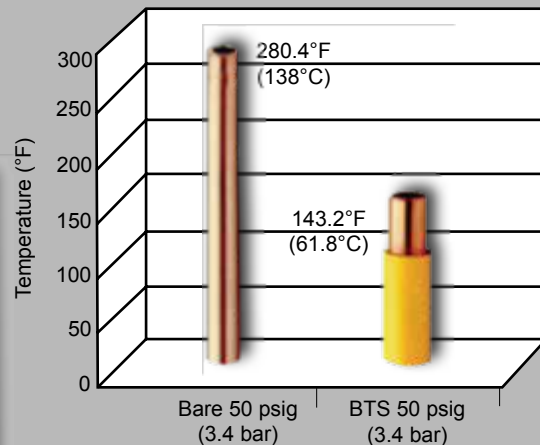
Design Conditions: Maintain 50°F, Low Ambient 0°F, Insulation 1½" Calcium Silicate, Steam 50 psig. Energy savings is based on 60°F annual mean temperature.

SLS-IT vs. Bare Metal Tube Energy Consumption Comparison

Pipe Size in (mm)	Bare Tracer °F (°C)	SLS-IT °F (°C)	Temp. Diff. °F (°C)	Energy Savings
6 (150)	120 (49)	85 (29)	35 (20)	28%
8 (200)	101 (38)	67 (19)	34 (19)	34%
10 (250)	92 (33)	60 (16)	32 (17)	35%
12 (300)	79 (26)	50 (10)	29 (16)	36%

Design Conditions: Maintain 50°F, Low Ambient 0°F, Insulation 1½" Calcium Silicate, Steam 50 psig. Energy savings is based on 60°F annual mean temperature.

BTS vs. Bare Metal Tube Skin Contact Temperature



Skin temperature after 5-second contact with tracer (per ASTM C-1055).

BTS provides equivalent thermal performance to bare tracing.

