

**HEAT TRACE**

***INTANK***  
***Oil Tank Heating System***



*Domestic Fuel Oil Tanks*

*Commercial/Industrial Fuel Oil Tanks*

# Oil Tank Heating System

## The Problem

For optimum safety and convenience, fuel storage facilities may be located in remote positions, outside buildings, or in unheated areas. In winter this can cause problems in waxing or coagulation of the fuel, resulting in clogged filters, plugged fuel lines and pumping difficulties, with subsequent heating system failure.

## The Solution

INTANK from Heat Trace is an effective and reliable method of freeze protecting fuel oil storage tanks and associated pipe work. This ensures continuous trouble free operation and increased performance of the heating system.

## Safe, Efficient, Reliable

The use of self-regulating heating cables ensures system safety through low heater surface temperatures and energy efficiency through self-regulation of the heater output.

The self-regulating characteristics of the heater means that as the temperature falls, so the output from the heater increases, thus ensuring the oil in the tank does not fall below the cloud point temperature.

As the oil then reaches the desired temperature, so the output from the heater reduces.

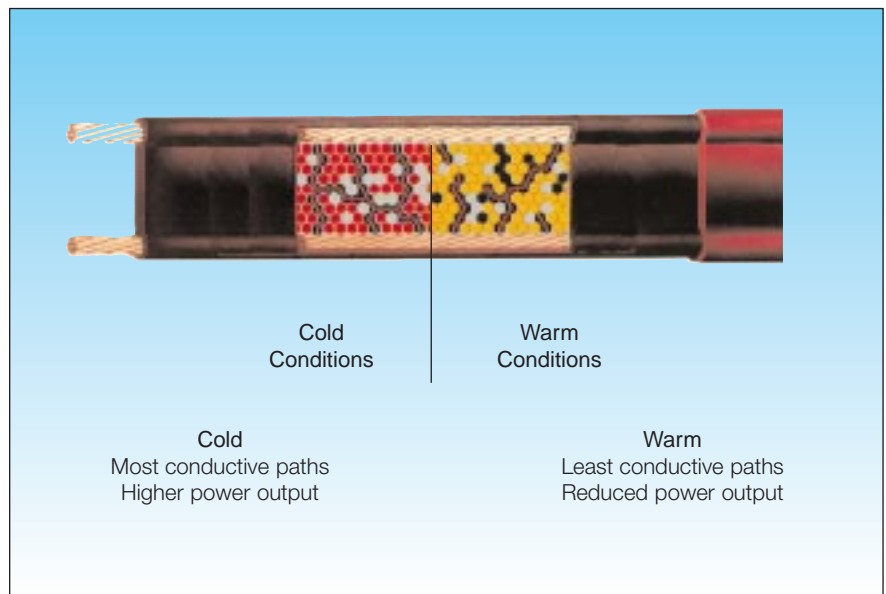
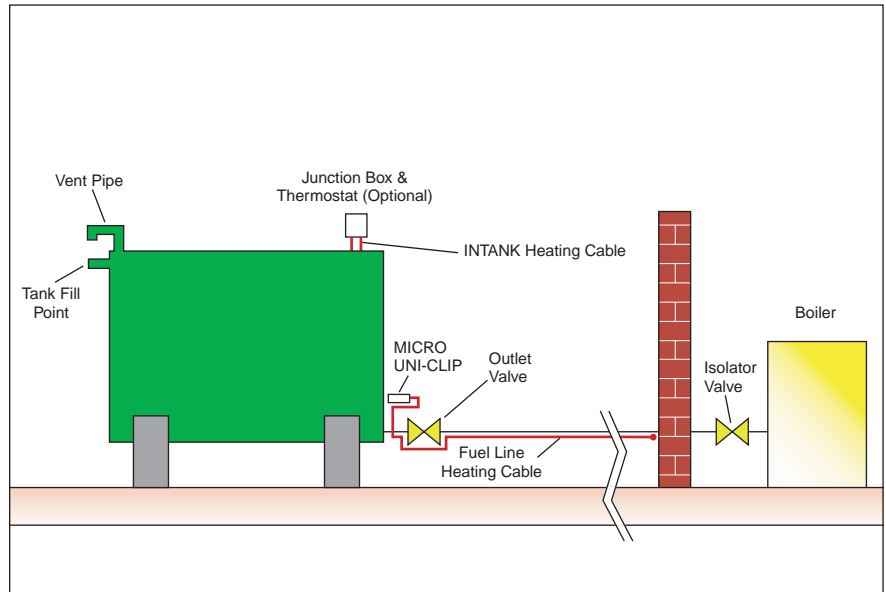
An additional air sensing thermostat is recommended to energise the system when the ambient temperature falls to +5°C.

## Complete System

INTANK is a complete system comprising heating cable, power junction box and mounting bracket, termination kits, tank entry glands, caution labels.

## Associated Pipe Work

Freeze protection may also be required on the associated tank outlet pipe work. This may be achieved using Heat Trace's 17FSM2-CF self-regulating heating cable straight traced to the pipe beneath thermal insulation.

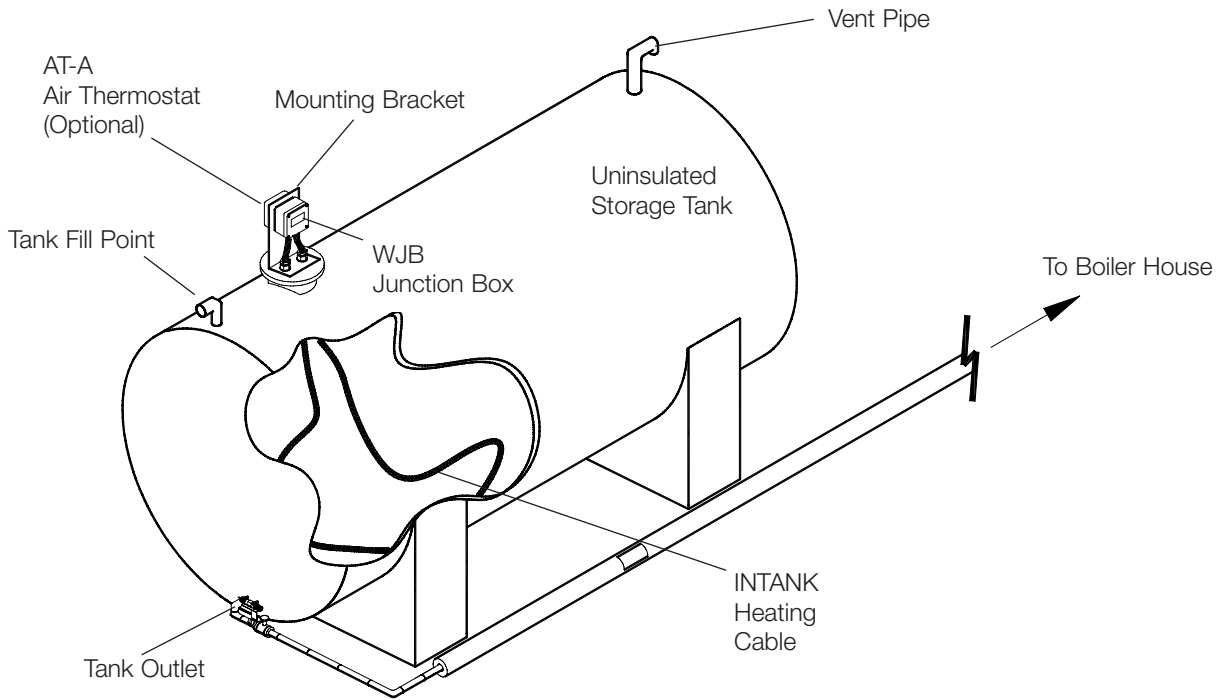


## Design Guide

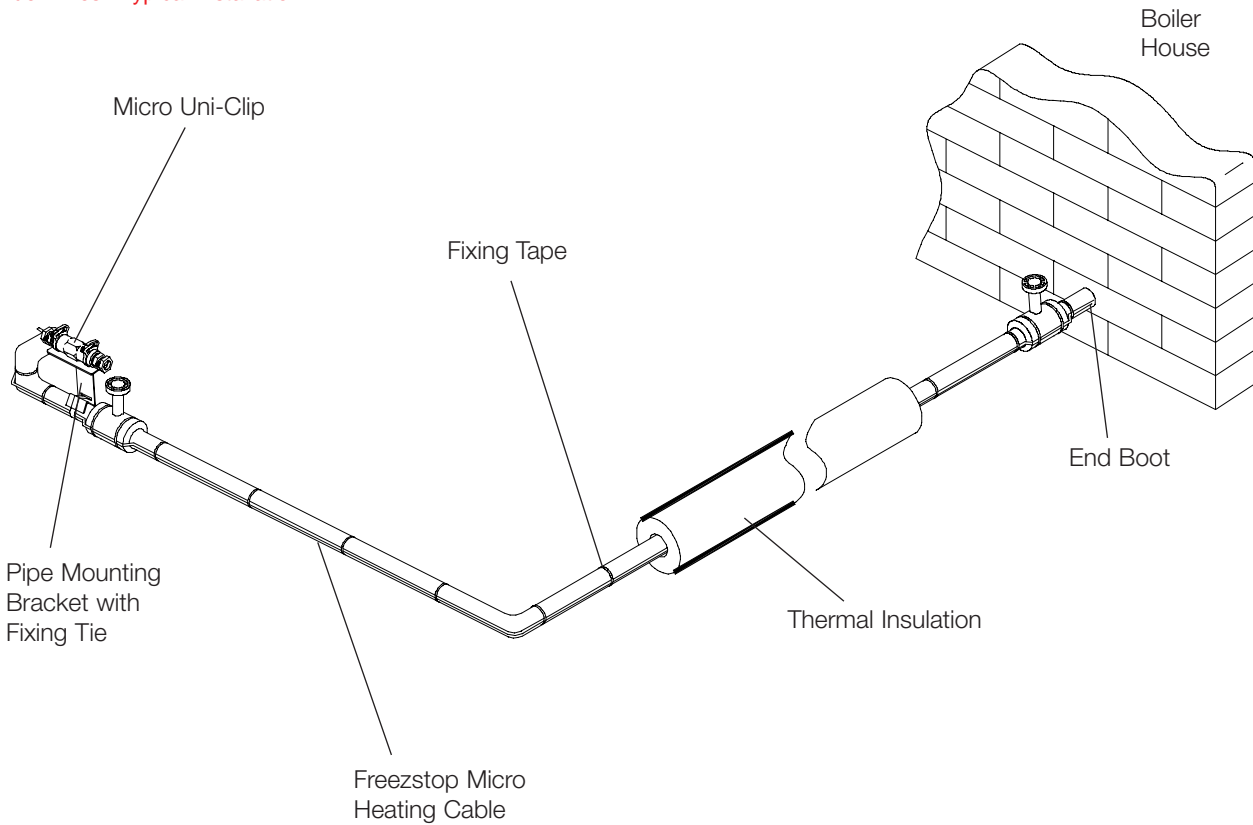
Available INTANK kit sizes	Tank Size (Litres)	INTANK Product Ref	Installed Load (W)	Breaker Size Type C (Amps)																
	up to 2000	IT-2	600	6																
	5000	IT-5	1000	10																
	10000	IT-10	1300	10																
	20000	IT-20	1800	16																
<i>NB. For larger capacity tanks, and for flow rates exceeding 500litres/hour contact your local Heat Trace representative</i>																				
Kit Contents	Heating cable Termination kits	Junction box Tank entry components	Mounting bracket CAUTION label																	
<p><u>Optional Item</u> AT-A air sensing thermostat. Maximum capacity 16 Amp. <i>Suggested set-point +5°C</i></p>																				
Fuel Lines Frost Protection System	<p>For frost protection of fuel lines on pipes sizes up to 38mm nominal bore, with a minimum of 20mm mineral wool thermal insulation complete with a waterproof cover or cladding.</p> <p>Heater type 17FSM2-CF, self-regulating heating cable, should be straight traced to the pipe work, in accordance with standard installation instructions.</p> <p>Required heater length will be the total pipe length plus an additional 0.5 metre for each termination into the junction box. Max length with 10 Amp breaker is 56 metres at -20°C.</p>																			
<p><u>Components</u></p> <table border="0"> <tbody> <tr> <td>17FSM2-CF</td> <td>Heating cable (pipe length + 0.5m for connection)</td> </tr> <tr> <td>UC/M</td> <td>Micro Uni-Clip connection unit (Max. 20 Amp)</td> </tr> <tr> <td>PB/UCM</td> <td>Pipe mounting bracket for Micro Uni-Clip</td> </tr> <tr> <td>BES1</td> <td>Boot end seal</td> </tr> <tr> <td>RTV0.5</td> <td>Silicone sealant</td> </tr> <tr> <td>PFS025</td> <td>Pipe fixing strap</td> </tr> <tr> <td>CL</td> <td>Caution labels (1 every 6 metres of pipe)</td> </tr> <tr> <td>FT/HTP</td> <td>Adhesive fixing tape</td> </tr> </tbody> </table>					17FSM2-CF	Heating cable (pipe length + 0.5m for connection)	UC/M	Micro Uni-Clip connection unit (Max. 20 Amp)	PB/UCM	Pipe mounting bracket for Micro Uni-Clip	BES1	Boot end seal	RTV0.5	Silicone sealant	PFS025	Pipe fixing strap	CL	Caution labels (1 every 6 metres of pipe)	FT/HTP	Adhesive fixing tape
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Design Data	<p>The above system design is based on maintaining +5°C with a minimum ambient temperature of -20°C. For different parameters contact Heat Trace's Design Office, or your local Representative.</p>																			
Electrical Protection	<p>Supply voltage 220/240 VAC Residual current device (rcd) 30mA Minimum switch-on temperature -20°C</p>																			

# Installation

## Oil Tank Heater - Typical Installation



## Fuel Lines - Typical Installation



# Bill of Materials - Order Form

**CUSTOMER NAME AND ADDRESS:**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Contact: \_\_\_\_\_

Tel: \_\_\_\_\_

Fax: \_\_\_\_\_

Order Number \_\_\_\_\_

Order Date    /    /    Date Required    /    /

**SUPPLIER DETAILS:**

Heat Trace Limited

Tracer House, Cromwell Road,

Bredbury, Stockport

Cheshire, SK6 2RF

England

Contact: Sales Department

Tel:    +44 (0)161 430 8333

Fax:    +44 (0)161 430 8654

\_\_\_\_\_

\_\_\_\_\_

QUANTITY	TYPE REF.	DESCRIPTION	UNIT PRICE	EXTENDED
<b>OIL TANK HEATER</b>				
pcs	IT-2	600W kit for up to 2000 litre tank	_____	_____
pcs	IT-5	1000W kit 5000 litre tank	_____	_____
pcs	IT-10	1300W kit 10000 litre tank	_____	_____
pcs	IT-20	1800W kit 20000 litre tank	_____	_____

**FUEL LINE HEATER**

m	17FSM2-CF	Heating tape (pipe length + 0.5m per termination)	_____	_____
pcs	UC/M	Micro Uni-Clip Connector	_____	_____
pcs	PB/UCM	Micro Uni-Clip Pipe Mounting Bracket	_____	_____
pcs	BES1	End Seal	_____	_____
pcs	RTV0.5	End Seal Adhesive	_____	_____
pcs	NT/SF	Fixing tie (1 per PB/UCM)	_____	_____
pcs	CL	Caution Labels (1 per 6m of heat traced pipework)	_____	_____
pcs	FT/HTP	Adhesive PVC fixing tape, 12mm x 33m	_____	_____

**THERMOSTAT CONTROL (Optional)**

ea	AT-A	Air sensing thermostat, 16A single phase max	_____	_____
			SUBTOTAL	£ _____
			C & P	£ _____
			VAT	£ _____
			TOTAL PRICE	£ _____

Additional materials needed to complete the heat tracing installation:

- All mains and interconnecting cables/glands
- Thermal Insulation

Presented by:



BS EN ISO 9001 Certificate No. 0160

## **HEAT TRACE LTD**

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