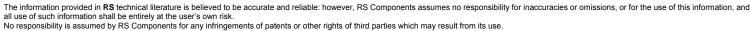


# **Self Regulating Trace Heating Systems Installation** and Maintenance

### Non-Hazardous Area Installations

#### Installation

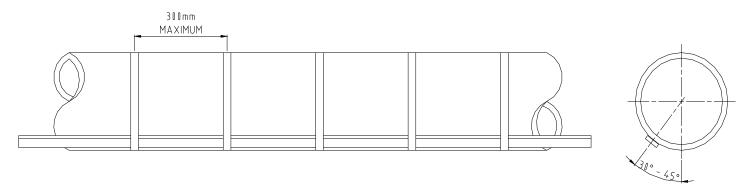
- Heating tape should be installed on clean, dry pipe free from burrs, weld splatter or any rough, sharp projections.
- Heating tape may be straight traced or spiralled along the pipe. If straight traced, the heating tape should be held in place with adhesive tape at 300mm intervals. For spiral tracing, fixing at 1m intervals is suitable.
- Use the correct adhesive tape suitable for the temperature application.
- A 30mA trip Residual Current Circuit Device (RCCB) or Earth Leakage Circuit Breaker (ELCB) is recommended for use with heating tapes.
- If in doubt about electrical installation consult a qualified electrician.
- Use mineral or glass fibre insulation and ensure that it is kept dry for maximum efficiency.
- Fit warning labels on the outside of thermal insulation at approximately 3-meter intervals.
- For PVC, ABS, Polythene and other 'Plastic' pipes use heating tape not exceeding 12 watts per meter and having an earth screen covering. It is recommended that heating tape be covered in 50mm wide adhesive aluminium foil. An RCC or ELCB unit must be used in conjunction with this type of installation.
- It is recommended that all Heating tape should be installed in conjunction with a thermostatic controller.
- Heating cable should be terminated using a suitable termination kit.



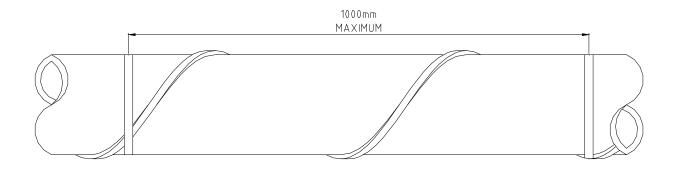
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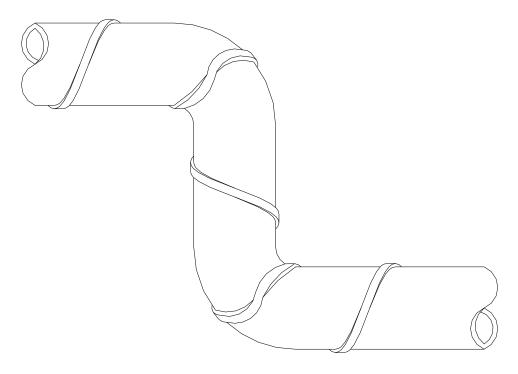
#### Heating Tape Straight Traced - Fixed at Max 300mm



### Heating Tape Spirally Traced - Fixed at Max 1000mm



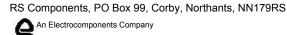
### When Spiral tracing keep turns evenly spaced



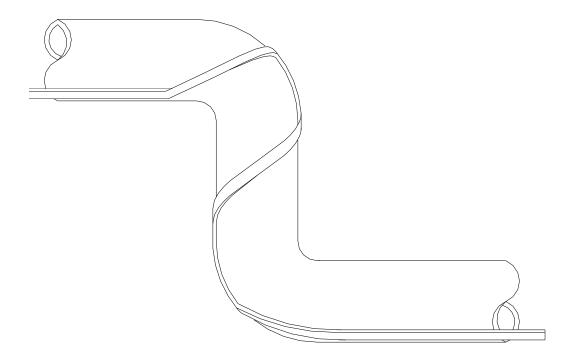
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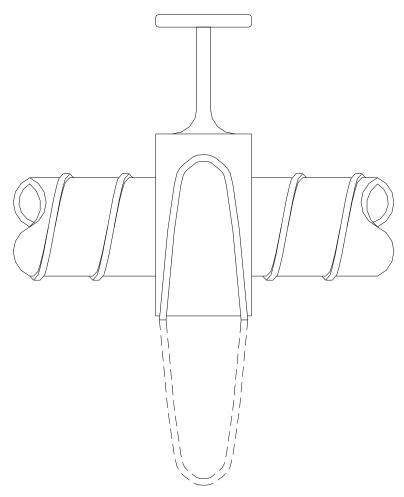
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### Straight Trace along the outside of pipe bends



Valves may be traced with extra tape to allow for increased heat loss for larger valves (>2"). The use of extra tape around valves also enables removal of the valve.

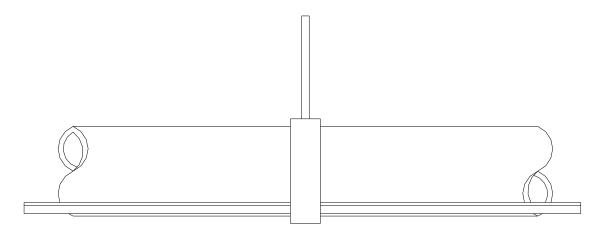


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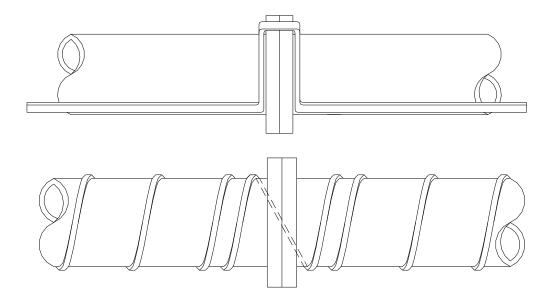
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Heating Tape should pass through pipe mounting supports/Insulation blocks with clearance but **MUST NOT** be fitted between pipe mounting clamps and the pipework.



#### Flange heating loss can be compensated by additional tracing.



It is the responsibility of the installer to ensure that the final installation complies with all relevant standards and current wiring regulations.

If in doubt, consult a qualified electrician.

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## **System Testing**

Test all heating cable:

- Prior to installation
- **Following Installation**

Depending on the type of heating cable installed, the following tests must be carried out and recorded.

#### **IMPORTANT**

- All electrical testing and system checking should be carried out by an electrician or other competent person(s).
- Drawings/Sketches/Photos Should be taken of the installation
- All tests should be carried out at every stage of the installation
- All results should be recorded and signed-off at every stage of the installation

SELF REGULATING - Maintenance

The system will operate automatically via the thermostatic or temperature control set point.

No maintenance of the system is required but it is recommended that the system is checked for operational and electrical integrity periodically or prior to the winter.

With electrical supply disconnected the Insulation Resistance should be tested using a minimum 500Vdc tester and should record a resistance reading of  $<20M\Omega$  to ensure that there is no damage to the heating cable.

To ensure efficient operation of the trace heating system it is recommended that the system is controlled via a suitable thermostat unit.

Depending on the application requirements there are several RS Components Ltd thermostats that will be suitable for trace heating projects.