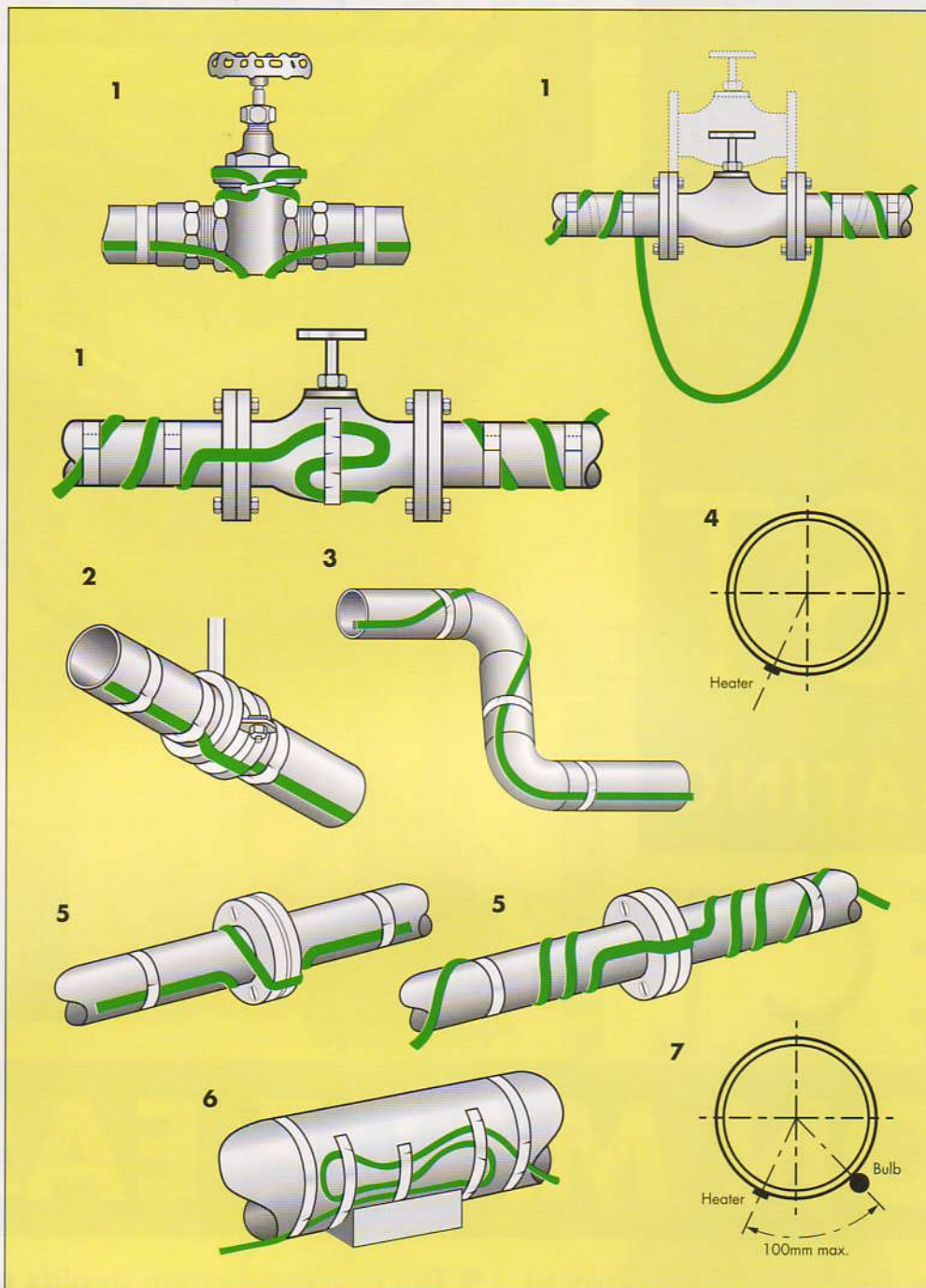


# INSTALLATION GUIDELINES

1. Allow extra heater length for each valve. Generally, the heater should be installed to facilitate removal of the valve for maintenance purposes. **Zoneheat or Zoneplus must not touch or overlap itself.**
2. Fix heating tape to the outside of pipe supports.
3. Install heating tape on the outside of pipe bends.
4. Always ensure maximum thermal contact between heating tape and pipe, installing a straight run of heating tape at the 5 or 7 o'clock position on the pipe, secured with fixing tape at intervals not exceeding 300mm. When wrapping heating tape ensure to maintain a uniform spiral pitch and secure in position with fixing tape approximately every 2 metres of pipe.
5. To compensate for additional heat loss at pipe flanges extra heater length can be applied as shown.
6. To compensate for additional heat loss from pipe supports a close spiral of the heater can be applied to each side of the support, or where the heater is straight run on the pipe it can be applied in a 'snake' formation as shown.
7. Pipe sensing thermostats should have the sensor bulb firmly fixed to the pipe surface with fixing tape, the bulb being positioned at a point 100mm max. distance from the heater and at least 900mm from the nearest pipe support or other heat sink.

Guidelines conform to the industry standard BS6351



## TESTING

### Prior to the installation of pipe insulation:-

- a) Visually check the heater and connections, splices etc.
- b) measure the insulation resistance
- c) test function of heater.

### After thermal insulation is installed:-

- a) measure insulation resistance
- b) test function of heater.

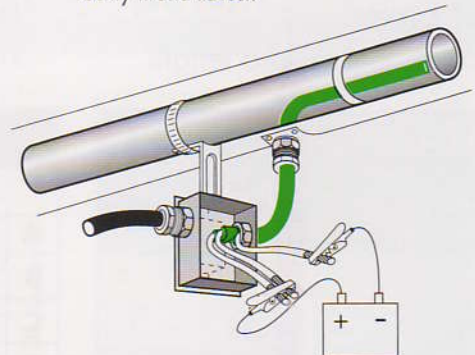
**Zoneheat systems: also check conductor resistance and continuity.**

### Visual check to ensure:-

- a) satisfactory installation of the system
- b) no mechanical damage (cuts, cracks etc.)
- c) no thermal damage (solder, weld splashes etc.)
- d) check all connections including power supply, splice braids etc.

### Measurement of Insulation Resistance:-

The insulation resistance of each circuit should be measured and recorded. The reading between the conductors and the braid or metal pipe should be checked using a 2,500 VDC megger. Minimum readings should be 10 Megohms regardless of the heating cable length. For insulation resistance below 10 Megohms identify circuit with fault, rectify it and re-test.



Test between heating cable and braid.

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