

# Pre-Packaged Heat Trace Cable

These instructions are to be followed when installing LMI's Pre-packaged Heat Trace Cables on pipes in ordinary locations. **DO NOT** install this cable in hazardous locations.

## Important General Notes Regarding Installation of Heat Tracing System:

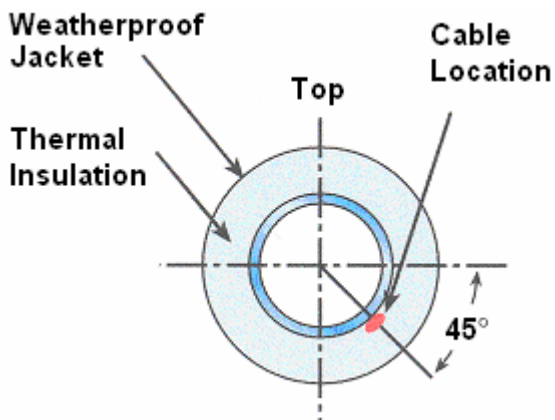
1. Ensure all pipes, tanks, etc. have been hydrostatically tested prior to the installation of the heating cable.
2. Ensure that this cable does not get wet, or stay exposed to environments containing excess moisture.
3. This cable should **not** be overlapped onto itself.
4. Only 3 watt per foot cable should be used when heat tracing plastic (non-metallic) pipes. **DO NOT USE 6 WATT PER FOOT CABLE ON PLASTIC (NON-METALIC) PIPES.**
5. Do not heat trace a piece of equipment which will not be insulated.
6. Do not install heating cable on equipment which could become hotter than the heating cable's maximum exposure temperature. (Maximum continuous exposure temperature, power off = 185°F / 85°C.)
7. Do not install heating cable in any area or on equipment which contains potentially corrosive materials.
8. The minimal bend radius for this cable is 1-1/8".
9. Allow a minimum of 2" between cable runs.
10. Never install heat tracing over expansion joints without leaving slack in the cable.
11. Never use wire-tie or pipe straps to secure cable.
12. Pumps and small vessels should be heat traced and controlled with the piping on the inflow end. The cable on the pump or vessel should be physically separate to permit disconnection during maintenance or removal.
13. Use foil application tape to cover the heating cable, whenever the cable is not in good contact with the pipe (i.e. at supports, valves, pumps, etc.) or whenever its use is specified by the LMI Design Guide PJ304.
14. The minimum installation temperature for this pre-packaged heat trace cable is -31°F (-35°C).

## INSTALLATION

**Warning:** installation must be performed by a qualified person, and within an area where all wiring is in accordance with the latest versions of the National Electrical Code and/or local electrical codes.

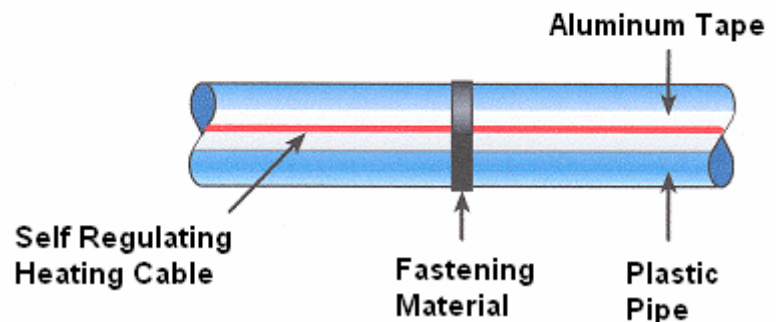
### Single Run:

Install heat tracing at the 5 or 7 o'clock position on a pipe (see fig. 1). If it is a plastic pipe, we strongly recommend that you install with aluminum tape, either underneath or over the top of the cable (see fig. 2). This will insure proper heat transfer from the cable, increase its efficiency, and decrease energy usage. Remember only 3 watt per foot heat tracing may be used on a non-metallic (plastic) pipe. Affix cable to the pipe with either glass tape, foil tape, or plastic cable ties at 12" intervals, keeping it taut enough so that the cable remains in contact with the pipe throughout its length. This method will ensure that the cable stays in total contact with the pipe. In any case, be certain that the fastening material used has a temperature rating compatible with this heater cable (150°F). Once affixed, the heating cable should be covered with closed cell insulation. This will ensure that the energy produced by the heating cable is being used to heat the pipe, rather than the atmosphere surrounding the pipe. You may then cover the installation with a weatherproof jacket, which will help to extend the life of the cable.



(Fig. 1)

**Note: Aluminum tape must be used under or over heating cable to spread heat transfer.**

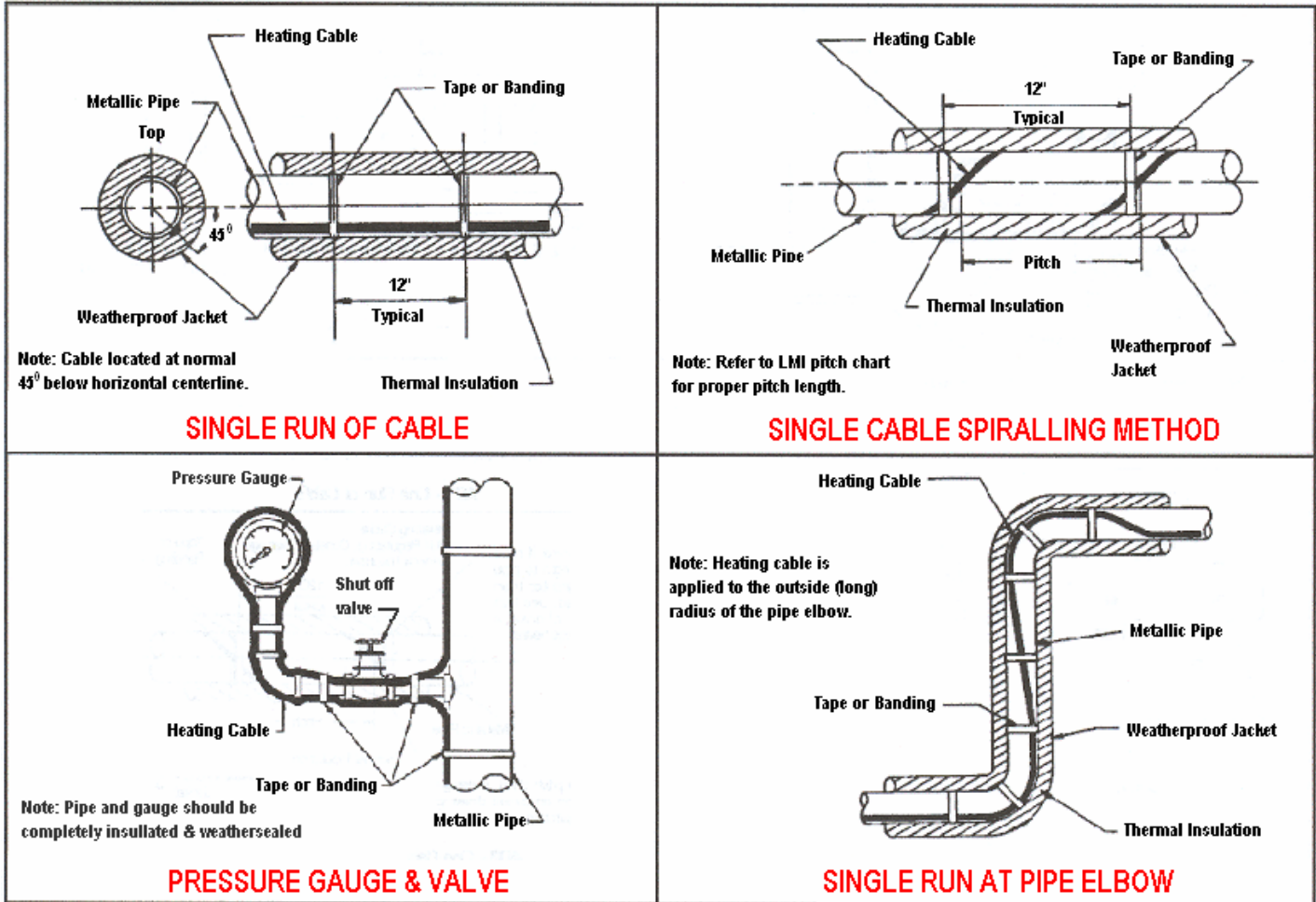


(Fig. 2)

### Spiraled Run:

If heat cable is to be spiraled, note the path of the heater cable and the spiral factor of the design. A simple way to think about spiral factor is: A "1.1" spiral factor, for instance, requires that you install 11 feet of heating cable for every 10 feet of pipe, etc. At about every 10 feet of pipe, suspend 11 feet of cable by attaching the opposite ends to the pipe. Rotate the loops around the pipe until all the slack has been taken up. Even out the spirals of the heater cable and secure the pipe as necessary to obtain good contact. The entire cable can be installed with hanging loops with the spiraling method. As with the single run method, the heating cable should be covered with closed cell installation and a weatherproof jacket.

## TYPICAL INSTALLATION DETAIL



**WARNING: Hazard of Fire;** do not overlap heating cables.

**Caution:**

1. Use only on distribution systems 125VAC/15AMPS 60HZ Maximum.
2. GFCI is a safety device, do not use as an on/off switch.
3. All Ground Fault Circuit Interrupters (GFCI) do not protect against electrical shock resulting from contact with both current carrying conductors of an electrical circuit. Care should be taken during the installation of this cable to avoid such things as; pulling the cable over sharp edges, forcibly pulling the cable free if it snags while being paid out, allowing the cable to be walked on or subjected to other abuse that may cause mechanical damage, etc. Visually inspect the heater cable and temperature controls (if used) for signs of mechanical damage before use.
4. If GFCI fails to trip when test button is pressed, or fails to reset, the device is defective and should be replaced.
5. GFCI products will provide protection against ground faults when used with a 2-wire receptacle and a 3-wire to 2-wire adapter. However, it is best to use on a 3-wire grounded outlet, since ground provides additional protection against electrical shock hazards.



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