THERMOSTATS & TIMERS

With Retro-FM, control devices such as thermostats and timers are not a requirement but a beneficial accessory used to increase energy efficiency.

It is important to understand that while self-regulating technology is very efficient, the heating cable can never completely turn off and as a result is always a minimal consumer of energy when powered (turned on or plugged in directly). The addition of a thermostat or timer will duty-cycle the heating cable on/off thus decreasing the energy consumed further.

Depending on the application, combining insulation and a thermostatic control can increase energy savings by as much as 80%.

INSULATION

One extremely important feature of self-regulating heating cables is the fact they can be thermally insulated without fear of overheating.

A thermally insulated pipe is not as susceptible to freezing and erratic changes in the environment’s temperature.

The insulation creates greater thermal consistency throughout the pipe and increases the efficiency of the Retro-FM system. When the warmth generated by the heating cable system is captured by insulation, the amount of energy consumed by the heating cable is vastly reduced.

It is recommended that all new or exposed pipes are insulated. Depending on the application, combining insulation and a thermostatic control can increase energy savings by as much as 80%.

SPECIAL REQUIREMENTS

Since 1988 Heat-Line has been specializing in freeze protection of all types. If you have a special application of any kind, give us a call. Special system designs are common to us. We manufacture many other innovative products not mentioned in this brochure.

Heat-Line® Freeze Protection Systems

Heat-Line, Retro-DWS, Retro-FM and Paladin are all registered trademarks of Heat-Line Corporation.
ABOUT RETRO-FM®

Retro-FM is a job-ready, advanced internal self-regulating tubular heating cable system that is used for efficient and reliable pipe freeze protection of both metallic and non-metallic pressurized septic and large diameter potable water supply pipe applications.

Retro-FM is manufactured using a pre-determined length of Heat-Line certified, self-regulating heating cable, factory installed inside a HDPE tube finished with a proprietary fusion end-seal. The purpose of the HDPE tube is to provide a barrier from fluids such as grey and black water, while providing extremely efficient heat transfer. The HDPE tube also certifies the Retro-FM system to be used in high pressure systems up to 230PSI and potable water supply pipes.

The Retro-FM system is supplied complete with a 1 inch stainless steel MIP fitting and a 1 inch FIP X 2 inch MIP PVC bushing to quickly interface into most 2 inch FIP force main tee and wye fittings.

INSTALLATION

The Retro-FM system is supplied job-ready with certified plumbing fittings to interface with a 1 inch stainless steel MIP fitting and a 1 inch FIP X 2 inch MIP PVC bushing to quickly interface into force main tee and wye fittings. This versatile interface process of the Retro-FM makes the system suitable for installation in pipe diameters 2 inches and greater.

The Retro-FM system will easily push inside most pipes for distances up to 150 feet (46m) and in some cases greater. For distances greater than 150 ft. (46m) the Retro-FM can be drawn in with a plumbing/electrical fish tape or rope.

In large diameter pipe applications, Retro-FM is designed to provide a melt-water path, thus allowing continuous flow through the entire channel. This allows the fluids to carve their way through large diameter pipes without having to install energy-expensive high watt density heat tapes. Even in applications where the pipes are intended to be dry for short or extended periods of time, the Retro-FM presents no danger of overheating or melting the pipe, making it suitable for all metal and non-metal pipes which may not always contain liquids.

Retro-FM can be used as a system to prevent freezing or as a precautionary system to use only if a freeze-up occurs. The Retro-FM is a fully serviceable product. If a blockage occurs, the entire heat system can be removed and re-installed.

APPLICATIONS

The Retro-FM heating cable system is a safe and reliable solution for both metallic and non-metallic pressurized water supply and sewage pipes.

Applications include but not limited to:

- Existing sewage, septic and effluent pipes
- Existing large diameter and high pressure water supply

For non-pressurized pipe systems such as sewage drains and waste water drains refer to Heat-Line Retro-DWS.

For new or exposed pipes refer to Heat-Line Paladin/EXT systems.

SELF-REGULATING TECHNOLOGY

Retro-FM employs the unique and advanced performance of self-regulating heating cable technology. Self-regulation allows the heating cable to effectively increase heat and energy output to sections along its length which are cold and simultaneously reduce heat and energy output to sections which are warm. Retro-FM gives you the peace of mind of reliable freeze protection without the risk of burning out or over heating. Retro-FM has become an essential product for home owners, engineers and building maintenance professionals to provide safe and reliable freeze protection in specialized applications.