

## RETRO-LINE AT A GLANCE

- Retro-Line systems are cCSAus and NSF ANSI 61 certified
- Five year warranty with optional 10 year extended
- Retro-Line can be fully insulated to decrease energy costs
- Retro-Line will never melt or burn out your water pipe, even if the pipe is dry
- Retro-Line can be easily installed in most existing pipes, without their removal
- Fast Installation – Retro-Line comes ready to use
- Internal systems come complete with Philmac fittings to make pressure connections simple
- Retro-Line is available to fit a variety of existing pipe materials and sizes

## 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.



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Heat-Line® Freeze Protection Systems

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## THERMOSTATS & TIMERS

With Retro-Line, 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%.

Other control options such as simple switches, computer controllers, monitoring services and automation systems can also be employed. Consult Heat-Line directly for control option questions.



## 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 environments temperature.



The insulation creates greater thermal consistency throughout the pipe and increases the efficiency of the Retro-Line 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. Heat-Line offers a variety of insulation materials which when combined with Heat-Line heating cable systems have been proven to keep water flowing in pipes above ground in temperatures below -40°C.

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

## SELF-REGULATING TECHNOLOGY

Every Heat-Line product, including the Retro-Line system, is manufactured with self-regulating technology, producing a system that can be completely enclosed in insulation, while preventing maintenance costs due to overheating. A Retro-Line system WILL NOT overheat, even when insulated. As a result Retro-Line systems are ideal for wet or dry pipe systems, such as drain back installations and sump pump lines.



# Retro-Line®

Energy Efficient Internal Heating Cable  
System for Existing Water Pipes.



NSF/ANSI 61

## ABOUT RETRO-LINE®

Developed in 1988 Retro-Line is an advanced, self-regulating heating cable system that is used for safe, efficient and reliable internal pipe freeze protection. Retro-Line is designed for new or existing, water pipes and lines without the need to excavate or expose the pipe for installation.

Retro-Line is an internal, self-regulating heating cable system certified Drinking Water Safe as per NSF/ANSI 61 regulations making it a perfect solution for potable water supply pipes.

Retro-Line systems are supplied complete with the necessary plumbing components and heating cable factory terminated for a fast and efficient installation.

## APPLICATIONS

Retro-Line can be used in many applications including but not limited to:

- Lake and river water supply
- Well water supply including dug, drilled and artesian wells
- Building to building water supply
- Sump pump discharge pipes
- Commercial/ Industrial Facilities
- Large drains
- Suitable for jet pump and submersible pump applications

Retro-Line can be used in all pipe types with inside dimensions ranging from 3/4 inch to 2 inch including but not limited to:

- Polyethylene (ID, OD and CTS Controlled)
- ABS
- PVC
- PEX
- Copper
- Galvanized
- Ductile Steel

NOTE: Pipes to be protected must not have elbows, or sharp fittings.

For high pressure or constant pressure systems see CARAPACE.

For non-pressurized drains, waste and sewer pipes see Retro-DWS.

For pressurized sewage pipes see Retro-FM.

For large diameter potable water supply pipes see Retro-FM.

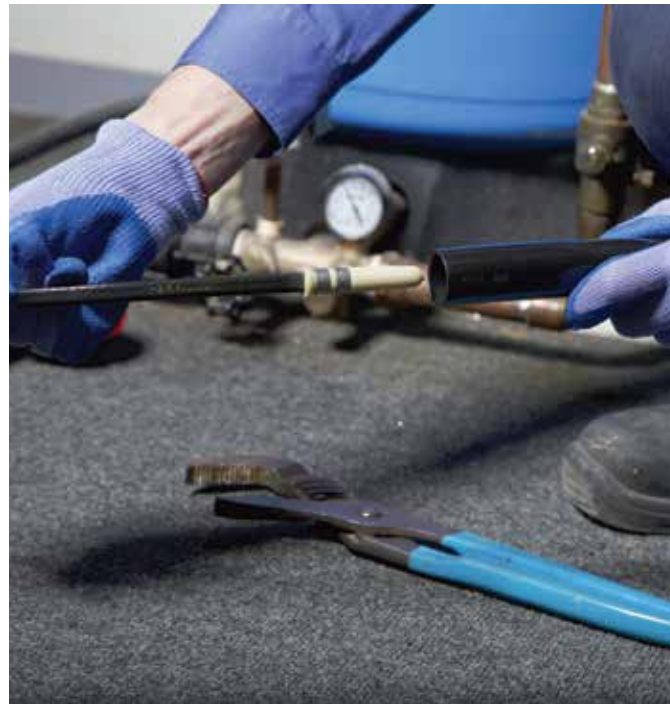
## INSTALLATION

The Retro-Line system is constructed using an exclusive high quality, industrial grade heating cable which is robust and flexible, making installations easy, even in long length applications.

Short Retro-Line systems can simply be pushed into the pipe while longer systems may need to be pulled in using a fish tape, string or small rope. Retro-Line systems 40 ft. (12m) and longer are supplied on a unique patented "Retro-Reel" which is designed to deploy the Retro-Line with ease while protecting the heating cable and fittings from mechanical injury.

A further advantage of the heating cable robust nature is the downward end of the cable does not need to be fastened as it will never move or slide up the pipe with the flow of the water. This feature is extremely important as it renders the system fully serviceable.

Whether you are installing a Retro-Line in a new pipe or existing pipe, above ground or buried, the installation process will be smooth.



## PLUMBING CONNECTION

In order to make the plumbing job simple, Heat-Line uses the outstanding performance and flexibility of the Philmac Fitting system. The fitting simply tightens with a wrench and is designed to connect polyethylene pipes positively, using compression devices and O-Rings. For Retro-Line systems ordered to be installed in pipes other than polyethylene, a male adapter fitting is supplied. This allows an easy connection into PEX, copper, galvanized, ABS and more.



Product supplied may not be exactly as shown.

## ORDERING INFORMATION

When ordering Retro-Line, the pipe size diameter & length are required. Standard Retro-Line tee fittings are designed to adapt to ID controlled polyethylene. Tee fitting options are available for OD and CTS controlled Polyethylene by special request. Also available by request is a Retro-Line MIPT adapter fitting for all pipe types.

### Plumbing Fittings Available:

ID Controlled Polyethylene: 3/4", 1", 1 1/4", 1 1/2", 2"  
CTS Controlled Polyethylene: 1", 1 1/4", 1 1/2"  
OD Controlled Polyethylene: 1", 1 1/4", 1 1/2"  
All Pipe types (MIPT): 1", 1 1/4", 1 1/2", 2"

## POWER SUPPLY

To meet the needs of installers with different electrical connection options the Retro-Line can be supplied as either a plug-in (GFC model) or hard wire (CS model). A dedicated, 15 AMP circuit is suitable for most lengths.

GFC model - Every GFC model Retro-Line system contains an integral ground fault device manufactured in each power lead with a trip level rating of 27 milliamps.

CS Model- 12/ 14 AWG SJEOOW supply cord for direct hard wire connection, GFCI must be field installed. Heat-Line offers the MilliAMP device for external in-line GFCI protection.