#### Retro-Line® AT A GLANCE

- Retro-Line systems are cCSAus and NSF/ANSI 61 certified
- 5-year warranty with optional 10-year extended
- Retro-Line can be fully insulated to decrease energy costs, combining insulation and a thermostatic control can increase energy savings by as much as 80%
- 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
- Includes patented Retro-Reel dispensing reel for simplified installation
- Includes exclusive end-seal technology engineered and certified for pressures up to 230PSI

## **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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#### THERMOSTATS & TIMERS

With Retro-Line, control devices such as thermostats and timers are not a requirement but an optional, beneficial accessory that increases energy efficiency.

Thermostats or timers control the heating cable in an ON / OFF operation, reducing energy consumption. The addition of a thermostat or timer allows the heating cable system to duty cycle. Heat-Line offers control

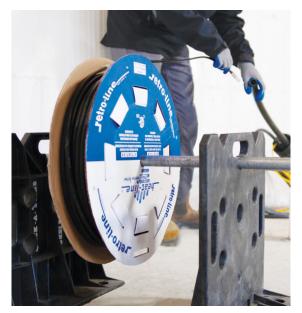
devices for both indoor and outdoor applications.

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



## **RETRO-REEL**

Retro-Line systems 40 ft. (12m) and longer are supplied on an exclusive patented "Retro-Reel" which is designed to deploy the Retro-Line with ease while protecting the heating cable and fittings from mechanical injury.



## SELF-REGULATING TECHNOLOGY

The Retro-Line system is manufactured with Heat-Line self-regulating heating cable technology. Self-regulating heating cable effectively increases heat and energy output to sections along its length which are cold and simultaneously reduces heat and energy output to sections which are warm. A Retro-Line system WILL NOT overheat, even when insulated. As a result, it is ideal for wet or dry pipe systems, such as drain back installations and sump pump lines.

Self-regulating heating cable technology provides exceptional performance in the coldest climates, as heat is gently applied to prevent freezing. Not all self-regulating heating cables are created equal. Heat-Line self-regulating technology offers superior performance in demanding temperatures, consumes less energy, and is North American-made.



## **INSULATION**

All Heat-Line self-regulating heating cables can be thermally insulated without the risk of overheating. A thermally insulated pipe is not as susceptible to freezing and erratic changes in the environment's temperature.

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 is captured by insulation, the amount of energy consumed is greatly reduced.

Heat-Line offers a variety of insulation materials. It is recommended that all new or exposed pipes be insulated.



# Retro-Line®

Energy Efficient Internal Heating Cable
System for New and Existing Water Pipes



#### **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.

#### **INSTALLATION**

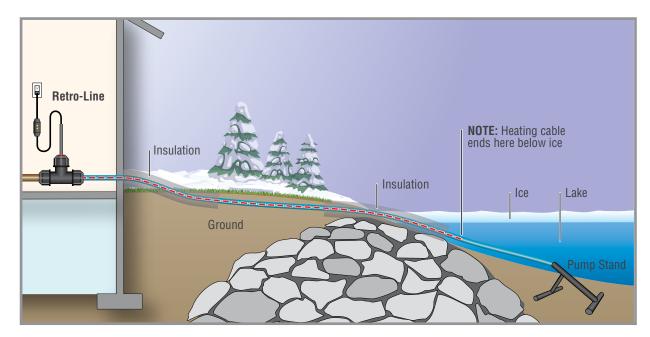
The Retro-Line system is constructed using an exclusive high quality, industrial grade heating cable which is robust and flexible, making installations easy, even in long length applications.

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.

The Retro-Line heating cable system does not require a downward fastening device since it remains stationary and unaffected by water flow. This characteristic is crucial as it ensures the system remains fully serviceable and reduces labour at installation.

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.





#### **APPLICATIONS**

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

- Lake and river water supply
- Well water supply; dug, drilled and artesian wells
- Building to building water supply
- Sump pump discharge pipes
- Commercial/industrial facilities
- Large drains
- Jet pump and submersible pump applications

Retro-Line can be used in all pipe types with inside dimensions ranging from ¾ inch to 2 inch including but not limited to:

- Polyethylene (ID, OD, CTS controlled)
- ABS
- PVC

- PEX
- Copper
- Galvanized
- Ductile steel

#### NOTE

Retro-DWS.

Pipes must not have elbows, or sharp fittings.
For small-diameter pipes see Retro-Line Mini.
For non-pressurized drains, waste and sewer pipes see

For pressurized sewage pipes see Retro-FM.

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

## **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.

## ORDERING INFORMATION

When ordering Retro-Line, the pipe size diameter and 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 or PEX by special request. Also available by request is a Retro-Line MIPT adapter fitting for all pipe types.

## Plumbing Fittings Available

ID Controlled Polyethylene: ¾", 1", 1¼", 1½", 2" CTS Controlled Polyethylene: 1", 1¼", 1½" OD Controlled Polyethylene: 1", 1¼", 1½" All Pipe Types (MIPT): 1", 1¼", 1½", 2"

## **ORDERING GUIDE**

Example: RL - 125 - 100 - CTS - GFC Product -120 V Retro-Line RL2 240 V Retro-Line Fitting/Pipe Size -Fitting/pipe size 3/4" Fitting/pipe size 1" 100 125 Fitting/pipe size 1 1/4" Fitting/pipe size 1 1/2" 150 200 Fitting/pipe size 2" **Length of System** 120 V max length 230 ft 240 V max length 550 ft

## Fitting Type -

ID Internal pipe diameter ID-IPS tee fitting
CTS Copper tubing size CTS tee fitting
OD Outside pipe diameter OD-IPS tee fitting
IP Male adapter (thread size) MIPT fitting
NI 1" and 1 1½" kit internal pipe diameter ID tee

## Cord-Set Type -

GFC Ground fault protected
5-15 P 120 V / 6-15 P 240 V
CS Cord connected (no GFCI)

NOTE: Nominal power output of Retro-Line system is 3 W/ft @  $50^{\circ}$ F (10 W/m @  $10^{\circ}$ C).

