Internal Tubular Freeze Protection System for Non-Pressurized Drain, Waste and Sewer Pipe Applications.

Retro-DWS (Drain Waste Sewer) supplied job-ready to internally heat trace common 3 inch and 4 inch septic and sewage pipe applications. The product can be easily adapted to a variety of drainage pipes and fit larger sized septic, storm drain and sewage pipes by using readily available components.
INTERFACE VERSATILITY

The versatile interface process of the Retro-DWS makes the system suitable for installation in pipe diameters from 3 inches to greater than 8 inches. In larger pipe applications, Retro-DWS 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 culverts or drains without having to install energy-expensive high watt density heat cables.

WILL NOT OVERHEAT

The self-regulating heating cable technology renders the system safe to use in all metal and non-metal pipes. Even if the pipe is dry, the self-regulating heating cable presents no danger of overheating, making it suitable for drain lines that do not always contain liquids.

Retro-DWS is the only heating cable system designed to protect drain, storm drain, culvert, waste and sewer systems. These include but are not limited to septic tanks, holding tanks and other similar applications. Retro-DWS can be used as a system to prevent freezing or as a precautionary system to use only if a freeze-up occurs.

FULLY SERVICEABLE

The Retro-DWS is a fully serviceable product. If a blockage occurs, the entire heat system can be removed and re-installed.

REQUIREMENTS

When ordering Retro-DWS you will need to know the diameter of your pipe and length of heating cable that is required. System lengths are 120 volt up to 230 feet and 240 volt up to 300 feet. Longer systems are available by special order. Minimum pipe size required is 2” ID.

IMPORTANT CONSIDERATIONS

Retro-DWS defends against many various and difficult freezing processes and conditions. The use of this product and its compatibility with a particular application is at the complete discretion of the user. The possibility exists that this product may cause an obstruction, especially where foreign objects or solids may flow in direct contact with it. A service schedule is recommended.
INTERNAL TUBULAR FREEZE PROTECTION

Retro-DWS is an internal tubular heating cable system designed to provide freeze protection for existing problematic drains, sewers and culverts without the need to excavate. Insulation and thermostatic control can be added to optimize energy efficiency as required.

COMPLETE SYSTEM

The Retro-DWS is constructed with Heat-Line certified, self-regulating heating cable systems, factory installed inside a ½" HDPE tube with a factory applied fusion end-seal. The system is manufactured to a predetermined length and is supplied complete with all necessary plumbing components. The components supplied interface with 3 inch and 4 inch ABS pipes using an existing or installed clean-out, Tee or Wye as an access point. If required, the Retro-DWS can be easily adapted to fit larger pipe diameters by using readily available, industry standard components.
## Retro-DWS™ Features / Benefits / Differentiators / Applications

### Features
- For installation in non-pressurized systems
- Thermostats and other control devices are optional
- Will not melt or overheat
- Can be fully insulated
- Extremely energy efficient
- Available in 120 volt or 240 volt systems
- 5 year limited warranty/10 year optional
- Available with either GFCI plug or CS hard wire connection
- Self-regulating, high performance tubular heater
- Available in common lengths
- Made of chemical resistant HDPE
- Suitable for installation in non-pressurized metallic and non-metallic pipes, tanks and vessels

### Benefits
- Fast installation
- Proven performance in extreme cold climates
- Each finished system is tested prior to shipment
- Single trade installation where a receptacle is within reach
- Manufactured to finished lengths for individual service requirements
- Insulate to maximize energy efficiency
- Thermostats not required for applications where they are not beneficial
- Interfaces with standard fittings known in the trade
- Limits or eliminates trenching and/or blasting
- Inherent mechanical protection
- Application flexibility
- Can be installed into existing pipes, tanks and vessels without excavation
- Suitable for use with metal and plastic pipes
- Unlimited control options

### Differentiators
- Manufactured in North America
- Heating cable set cCSAus approved for installation throughout the USA and Canada
- Clear, concise installation and support documentation
- Will not melt or overheat pipe
- Available in long lengths
- Electrically efficient heating cable technology
- Customizable for various pipe types and sizes
- Completely serviceable
- The only tubular heater for in-pipe sewer applications
- Extremely High Quality
- Excellent Warranty

### Applications
- Existing fresh water drains, storm drains and sewers subject to freezing
- Rural homes, cottages, farms
- Commercial, industrial
- Municipal
- Storm drains under parking lots
- Storm sewers
- Sewers
- Culverts
- Sewage force mains
- Camps, mining
- Wherever blasting would be required to reach frost line
Retro-DWS™ | Product Code

Example: DWS – 5 – 100 – GFC

<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
<th>Cord-Set Type</th>
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<tbody>
<tr>
<td>DWS</td>
<td>120 volt Retro-DWS</td>
<td>GFC</td>
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<tr>
<td>DWS2</td>
<td>240 volt Retro-DWS</td>
<td>CS</td>
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<tr>
<td>Wattage</td>
<td>5</td>
<td>Ground fault protected</td>
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<tr>
<td></td>
<td>5 Watts self-regulating heater</td>
<td>Cord connected (No GFC)</td>
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</table>

Length of System

10 to 230 feet  120 volt systems
10 to 300 feet* 240 volt systems

*Longer system lengths available by special request

Retro-DWS™ | Sample Application

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Example diagram showing a retro-DWS system setup inside a building, including:
- Heating cable
- Inside building (enlarged to show detail)
- Drain pipe
- 2-inch foam insulating board
- Option to extend the tubular heater into tank
- Septic tank
- Pipe to leach field