

Retro-DWS®

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 4 inch septic and sewage pipe applications with an optional 3 inch adaptor kit available as an add on. 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.



See more product information, videos, photos, technical documents, and more

Patents USA and Canada 

Retro-DWS

Features & Benefits

- The only in-pipe system designed specifically for grey and black water applications
- Factory finished, job-ready – no liability for installer
- 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
- Plumbing fittings supplied to adapt to 4 inch ABS clean-out (3 inch kit optional add on)
- Available in a plug-in GFCI model or hard wire cord-set model depending on application
- Completely customizable for various application requirements
- Length can be adjusted (shortened) on the job-site by means of extracting the cable through plumbing fitting
- Available in common lengths and long lengths
- Suitable for pipe diameters 3 inch and larger
- Suitable for non-pressurized pipe, for pressurized systems see Retro-FM
- Suitable for installation in plastic or metal pipes
- Can be installed into existing pipes without excavation
- Can be pushed in most pipes up to 150 feet
- Long systems can be drawn in with fish tape or twine
- Fully serviceable, can be removed if necessary
- Suitable for above ground applications with insulation
- Will never melt or overheat, even if pipe is dry
- Heating cable is protected within ½ inch HDPE pipe



Specifications

- cCSAus approved (Canada and USA) LR85446
- Certified Usage Type W Canada
- Installation Type D USA
- Internal waste (grey and black) water certified
- Self-regulating/conductive polymer heating cable
- Tubular Heater (heating cable installed inside HDPE polyethylene)
- Standard wattage 5 W/ft @ 50°F (16 W/m @ 10°C), 8 W/ft @ 50°F (26 W/m @ 10°C) available by special request
- Available in 120V and 240V
- Max lengths 120V - 230 ft, 240V - 540 ft
- Available with either GFCI plug or CS hard wire connection
- Standard warranty of 5 years, with optional 10 years extended

Applications

- Existing fresh water drains, storm drains and sewer subject to freezing
- Rural homes, cottages, farms
- Commercial, industrial, municipal
- Storm drains under parking lots
- Storm sewers, sewers, culverts
- Camps, mining
- Wherever blasting would be required to reach frost line

For more Features and Benefits common to all Heat-Line systems, refer to page 6.





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 factory installed inside a ½ inch 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 4 inch ABS pipes using an existing or installed clean-out, Tee or Wye as an access point. A 3 inch adaptor kit is available as an optional add on and if required, the Retro-DWS can be easily adapted to fit larger pipe diameters by using readily available, industry standard 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 length of heating cable that is required. System lengths are 120 volt up to 230 feet and 240 volt up to 540 feet. Longer systems are available by special order. Minimum pipe size required is 3 inch ID.

Important Considerations

Retro-DWS defends against many various and difficult freezing processes and conditions. The use of his product and its compatibility with a particular application is at the complete discretion of the user. The possibility exist 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.

Retro-DWS | Product Code Guide

Example: **DWS - 5 - 100 - GFC**

Product		Cord-Set Type	
DWS	120 V Retro-DWS	GFC	Ground fault protected 5-15 P 120 V / 6-15 P 240 V
DWS2	240 V Retro-DWS	CS	Cord connected (no GFCI)
Nominal Power Output		Length of System	
5	5 W/ft @ 50°F (16 W/m @ 10°C)	GFC Ground Fault Protected	CS Cord Connected (no GFCI)
8	8 W/ft @ 50°F (26 W/m @ 10°C)	<i>Max length</i>	<i>Max length</i>
		5 W/ft 120 V	230 ft
		8 W/ft 120 V	150 ft
		5 W/ft 240 V	460 ft
		8 W/ft 240 V	300 ft

NOTE: Installers must provide 20 Amp circuits for CS circuit lengths greater than 460 ft for 5 W/ft and 300 ft for 8 W/ft systems.

Retro-DWS | Accessories

DWS-3.00-KIT	3 inch pipe adaptor kit, includes coupler and threaded male adapter	PGFS-23105-98	30A 240V 1PH Permanent ELCI Auto Reset 10mA Trip Level
HLJ-STAT	120V plug-in thermostat (GFC)	PGFS-93105-98	30A 208V 1PH Permanent ELCI Auto Reset 10mA Trip Level
HLP-STAT	120/240V hard wire thermostat (CS)	PGFS-33105-98	30A 120/ 240V, 1PH Permanent ELCI, Auto Reset, 10mA Trip Level
HLA-120	120V plug-in thermostat (GFC)	INSUL-3.00	Insulation sleeve for 3 inch ID pipe (3 ½ inch ID, 6 ft long)
GFA-STAT	120/240V hard wire thermostat GFEP (CS)	INSUL-4.00	Insulation sleeve for 4 inch ID pipe (4 ½ inch ID, 6 ft long)
GPT-130	120/240V hard wire thermostat GFEP (CS)	HLP-TAPE	Tape for insulation sleeve butt joints (100 ft)
TIMER-120P	120V plug-in timer (GFC)	INSUL-FOIL	Aluminum bubble foil insulation (16 in wide, sold by the foot)
TIMER-240P	240V plug-in timer (GFC)	FOIL-TAPE	All weather aluminum foil tape (150 ft)
TIMER-CS	120/240V hard wire timer (CS)	TORQ-60	No hub torque wrench automatic release at 60 IN. LB.
FPC-02-120-0D	120V hard wire digital and adjustable thermostat GFEP (CS)	WARRANTY	Extended 10 year limited warranty
FPC-02-240-0D	240V hard wire digital and adjustable thermostat GFEP (CS)		
FRI0-S1-A	120/240V hard wire digital and adjustable thermostat with WIFI/ Ethernet and GFEP (CS)		
MA-10	120/240V GFCI/ELCI (CS)		

Retro-DWS | Sample Application

