CONNECT AND PROTECT

Commercial Kitchen Grease Waste Flow Maintenance System

nVent

RAYCHEM

WHY A GREASE WASTE SYSTEM NEEDS HEAT TRACING

Grease interceptors in commercial kitchens are often required as a means of preventing Fat, Oil and Grease (FOG) from discharging into municipal sewer systems. As building design trends are pushing interceptors further away from the kitchen and capturing more points of use as part of a larger system, it becomes vital to heat the FOG to its optimal viscosity from the initial flow point to the interceptor to prevent blockage, maintain flow and optimize grease interceptor performance. Since FOG separates and interceptors perform at their best when the effluent is hot, generally ranging from 105-115°F, thermal insulation of the pipes alone is not sufficient to keep grease waste free flowing.

Modern commercial kitchens also need to be concerned about not discharging any FOG to municipal sewers. If effluent is too hot or too much volume is delivered to the interceptor at one time, FOG can bypass the grease interceptor and congeal downstream in the sewer. This can lead to serious sewer clogging issues and heavy fines for offenders.

The avoidable result — clogged grease piping that lead to the shutdown of commercial kitchens, potential loss of use litigation, and costly remediation and repairs.

According to the EPA, 800 to 17,000 pounds of grease are discharged into the sanitary sewer system per restaurant per year*. The EPA reports that there are approximately 74,000 sanitary sewer overflows per year. It is estimated that 50% of those overflows are attributed to FOG blockages.

(Source: EPA National Pretreatment Program 40 CFR 403)

NVENT RAYCHEM GREASE WASTE FLOW MAINTENANCE SYSTEM KEEPS PIPING FREE FLOWING

nVent RAYCHEM self-regulating heat tracing system efficiently maintains grease waste piping with the right amount of heat to ensure proper flow and help optimize grease interceptor performance. The self-regulating cable automatically reduces its output as the pipe warms — with no risk of over or under-heating, and no wasted energy — which saves you money.

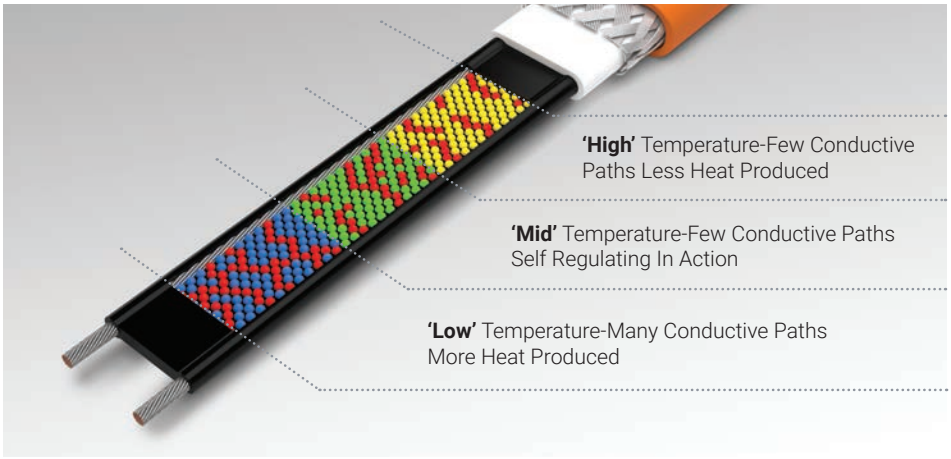
nVent RAYCHEM heat trace cables can be installed on metal or plastic pipes, can be wrapped around valves and other heat sinks and can be used for above ground or buried pipes.

HOW SELF-REGULATION WORKS IN RAYCHEM CONDUCTIVE-POLYMER HEATERS

Self-Regulating Technology — Right Amount of Heat

At higher temperatures, the polymer expands, reducing the number of electrical paths thereby reducing the power output of the cable. At low temperatures, there are many conductive paths, allowing higher level of current to flow between the bus wires.

Producing the 'right amount of heat' saves you money with no wasted energy.



Tested and Qualified

nVent RAYCHEM heating systems are tested to the most stringent industry standards to ensure maximum reliability and performance for our customers.

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Robust Construction

Long service life assured through modified polyolefin or fluorpolymer insulation and jacket materials.

Life Expectancy

Extensive scientific testing and field history prove that when properly installed and maintained, the self-regulating cables are expected to work for many decades. An industry leading 10 year extended warranty is available.

In 1972, the heat tracing division of the Raychem Corporation (now a part of nVent) patented and produced the first commercially successful electric self-regulating heat tracing cable. The technology was celebrated as the 200th induction into IEEE's historic Milestones Program in 2019. nVent is the proud producer of the world's #1 conductive polymer self-regulating heat tracing cable.

HOW DOES THE XL-TRACE EDGE SYSTEM WORK?

Our nVent RAYCHEM XL-TRACE EDGE (CT) self-regulating heat trace cables with fluoropolymer outer jacket, maintain fluid temperatures in grease waste disposal piping.

Flow maintenance involves heating a fluid in order to lower its viscosity so that it can be moved through a pipe or a tank.

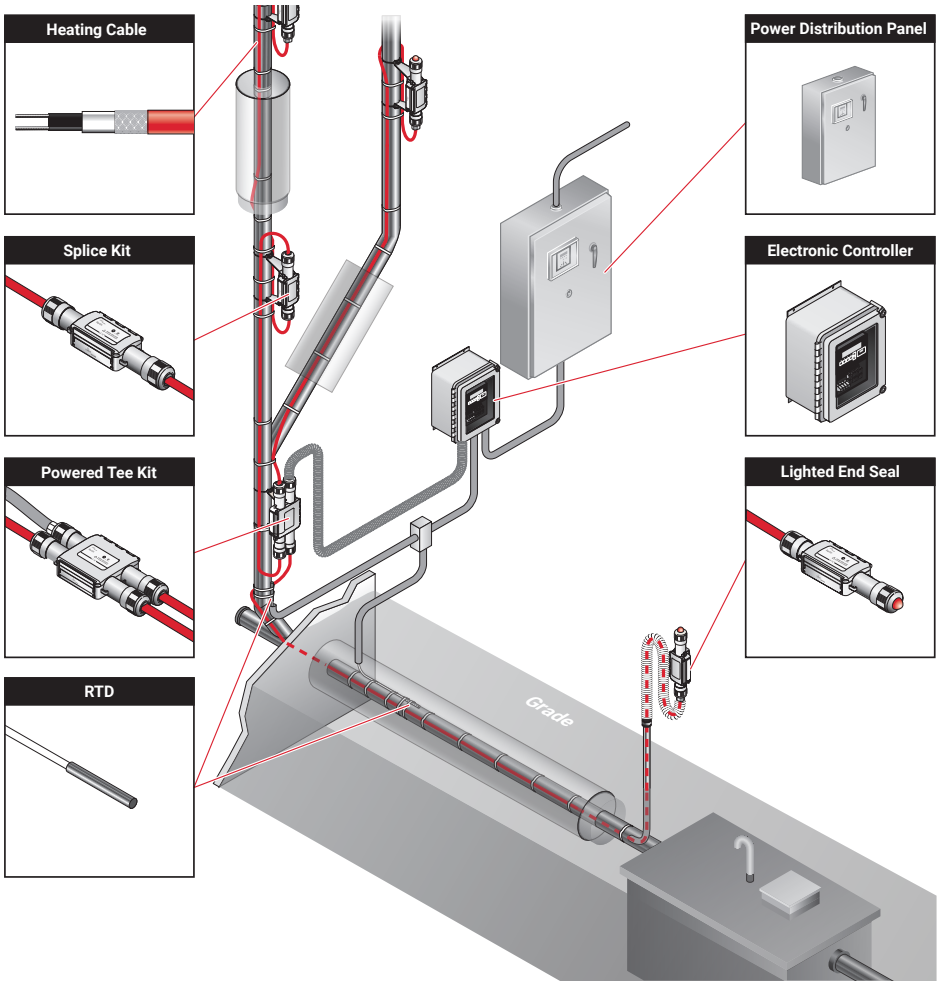
Our Grease Waste Flow Maintenance system is typically designed to maintain 110°F (43°C) fluid temperature to keep the FOG mixture in suspension from the kitchen to the grease interceptor.

The grease waste piping must exit the building to an exterior grease interceptor, and must be kept at a certain temperature along the entire distance to keep the FOG from congealing.

Typical applications include:

- Grease waste piping in food service establishments
- Pre-wash stations
- Floor drains

Our heat tracing system includes specified heating cables, power connections, splices and tee connections, controls, contactors, power distribution panels, and accessories necessary for a complete and economical solution.



TYPICAL GREASE WASTE FLOW MANAGEMENT SYSTEM

GREASE WASTE FLOW MAINTENANCE SYSTEM TECHNOLOGY & BENEFITS

460

Reliable Temperature Control

nVent RAYCHEM heat tracing controllers provide safe and reliable monitoring and control of grease waste applications.

The nVent RAYCHEM 460 controller is UL Listed and modernized with a 5" touch screen for easy setup and programming. It has advanced features such as high limit temperature cut-out, auto-cycle and built-in ground fault protection that make installation safe.

The nVent RAYCHEM C910-485 is CSA approved and NEMA 4x rated. It is robust and designed to work with XL-Trace Edge (CT) cables to provide accurate line sensing and user friendly measurement and control for heating cables. It has advanced features such as high limit temperature cut-out, auto-cycle and built-in ground fault protection that make installation safe. In addition, the C910 includes a RS-485 communication wire to connect to a building's BMS system.

C910-485

Safety

nVent requires the use of a 30-mA ground fault protection device (GFPD) to provide maximum safety and protection from fire.

Complete System Solution

Easy to Install nVent RAYCHEM RayClic components, XL-Trace Edge (CT) heating cables and controllers provide a complete and easy to design and install system solution.

Design Flexibility

The trend is for grease interceptors to be located further from buildings. Our Grease Waste Flow Maintenance system often allows for a reduced pitch angle which makes desired interceptor placement more practical and cost effective.

Cost Savings

Installing our heating cable solutions on grease piping prevents FOG from congealing and avoids costly loss of use, cleaning and repair charges and municipal fines.

RayClic

Technical & Project Services

Our experts are available to address all types of projects to ensure optimized designs and performance.

Approval

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XL-Trace Edge (CT)

Trust the Leading Brand

As the inventors of nVent RAYCHEM heat tracing products, with more than 1.75 billion feet installed worldwide, we are the preferred brand by engineers and installers.

DESIGN TOOLS

Online Design Tool

The Trace-Calc Pro for Buildings tool lets you create a design project that can contain multiple applications, multiple circuits, and multiple pipe segments with different design parameters on a single circuit.

- Easily create a Grease Waste Flow Maintenance application design calculating temperature, circuit lengths, power and much more
- Generate summary and BOM quickly
- Save your projects for future use
- Access the online tool from our website

Specifications/CAD Drawings

Downloaded latest nVent RAYCHEM specifications and detail drawings on our partner portals:

- CADdetails
- MasterSpec

BIM Design & Modeling Tools

BIM Families

- nVent RAYCHEM provides a suite of BIM families to help designers incorporate heat tracing systems into their BIM designs.
- Find us on BimObjects

Need design help?
We would love to assist. Send us an email.

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Our powerful portfolio of brands:

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