



## CONNECT AND PROTECT

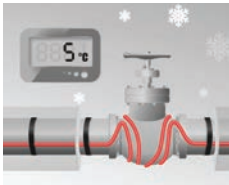
Industrial heat tracing solutions  
keep processes operational  
and safe

CADDY ERICO HOFFMAN ILSCO RAYCHEM SCHROFF

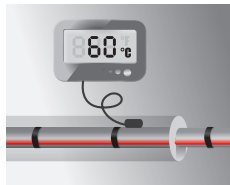


# We are where you need us, from industrial to commercial, residential and infrastructural solutions

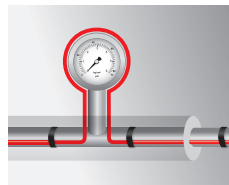
We provide safety and comfort to people, maximizing industrial productivity and building performance, and reducing energy consumption. We cover any heat tracing application.



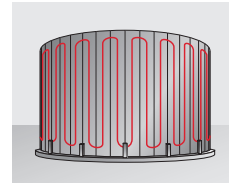
Frost Protection



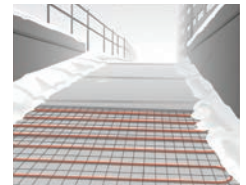
Temperature Maintenance



Instrument Heating



Tank Heating



Snowmelting of Ramps

## OIL & GAS



### We help keeping quality flowing.

- Freeze protection of pipes and equipment
- Viscosity control of oil
- Solve wax/paraffin problems
- Anti-icing on offshore vessels, rigs, heli-decks
- Leak detection and tank insulation
- Long pipeline heating
- Frost heave prevention of LNG tanks

## CHEM/PETROCHEM



### We help keeping processes operational.

- Freeze protection of water and steam condensation lines, instrumentation, and other equipment
- Flow control of hydraulic systems and transfer lines
- Temperature maintenance of sensitive liquids, like fuel oils, phenol, sulfur, caustic soda, paint, resins, salts ...
- Prevent condensation to avoid pipe corrosion, clogging of electro-filters, conveyer systems ...

## POWER



### We protect critical power generation.

- For Coal, Gas, Solar or Nuclear plants
- Freeze protection of cooling water and water treatment stations
- Keep boiler start-up units functional
- Prevent condensation on electro-filters, ash removers, instrument and air process lines
- Temperature maintenance on desulfurization units or molten salt CSP plants
- Flow assurance on fuel oil and instrumentation lines



## FOOD



### We ensure safety and efficiency of food production.

- Freeze protection of water and steam condensation lines, freezer doors, equipment
- Avoid condensation of flour mills, bakery products, incinerators, milk powder ...
- Pasteurization/Sterilization of dairy products and potable water lines
- Flow control of specific processes with sodium hydroxide: dried maize/corn, milk powder, potato starch, mayonnaise, vegetable oil, fat, chocolate, sugar, gelatin

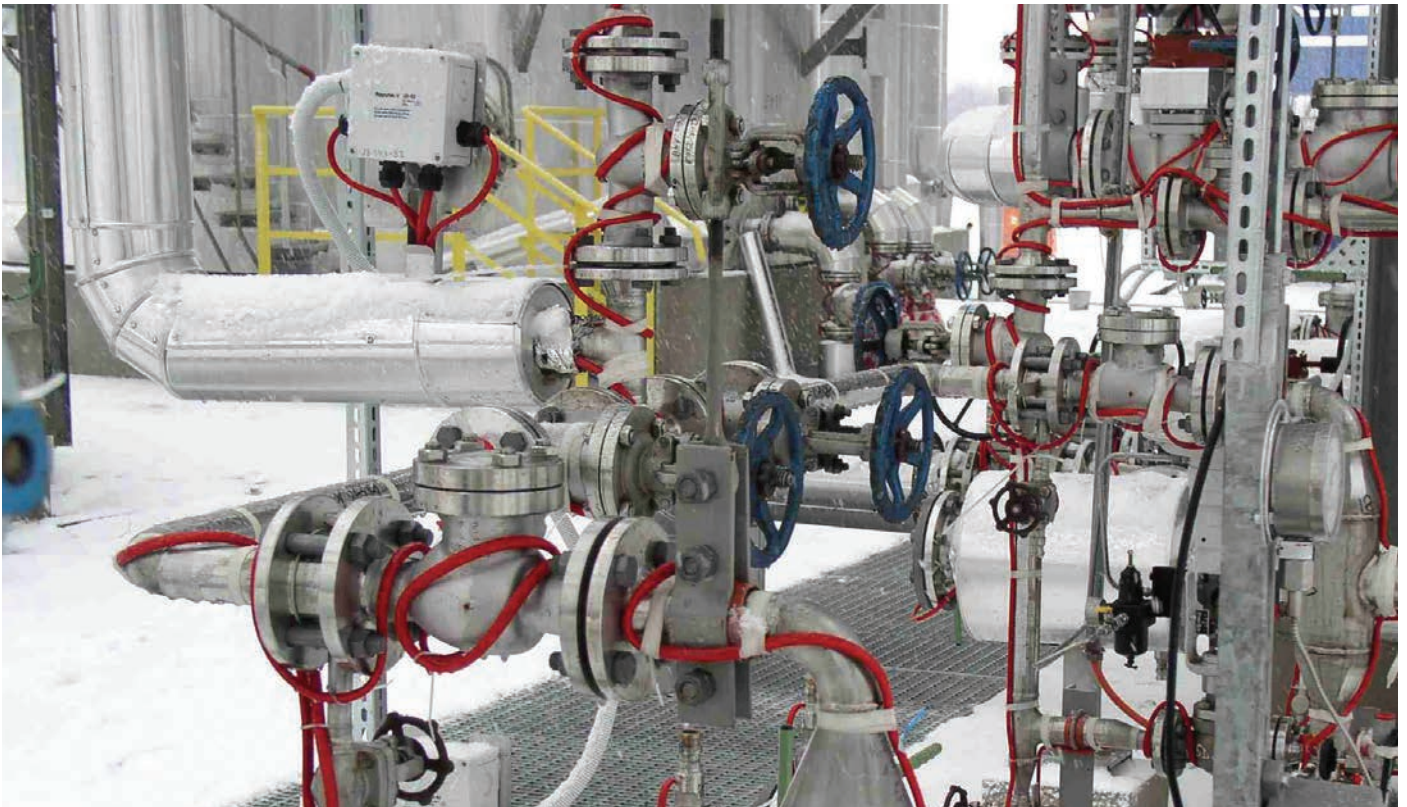
## PULP & PAPER



### We ensure seamless production flow and safe work environment.

- Freeze protection of water, pulp, starch, silo cones, process slurries, steam condensate, instrumentation lines, storage areas, loading platforms, truck scales, gutters, critical walk ways
- Temperature maintenance of caustic solutions, sulfuric acid, aluminum sulfate, black liquor.

## Products in action



nVent RAYCHEM XTVR heating cables, installed for process temperature maintenance and frost protection on pipes in a chemical plant (insulation is still pending)

# About nVent

nVent Electrical PLC is a global company with more than 11,000 employees worldwide and with leading positions in industrial, commercial, residential, and infrastructure sectors. Brand names include CADDY, ERICO, HOFFMAN, ILSCO, RAYCHEM and SCHROFF.

At nVent, we believe that safer systems ensure a more secure world. We connect and protect our customers with inventive electrical solutions.

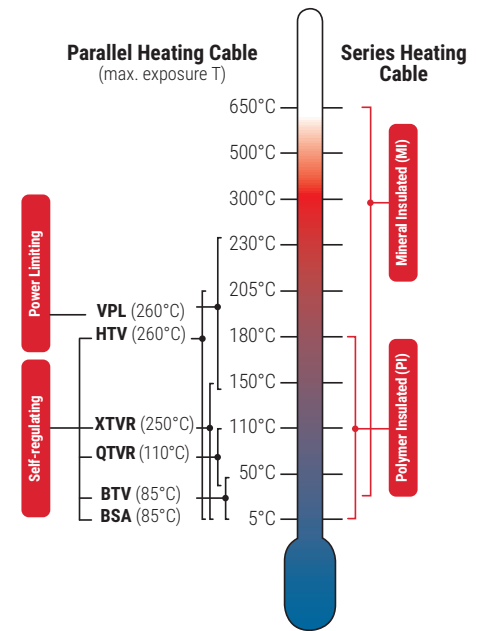


## We manage the heat you need

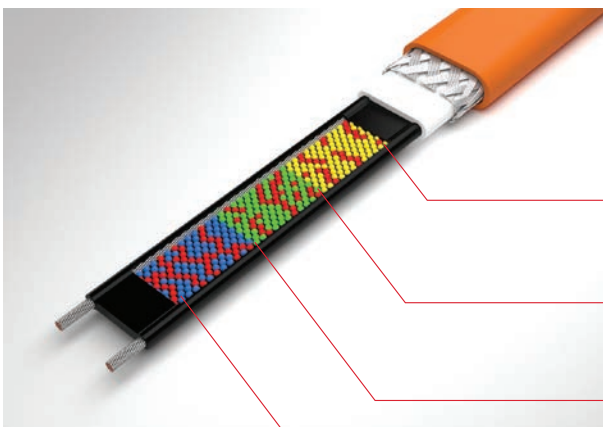
As the inventor of self-regulating heat-tracing technology, with over 550,000 km heating cable sold in over 100 countries, **nVent's RAYCHEM** is the most recognized brand and global standard in heat tracing.

nVent offers the industry's most complete line of heat-tracing product technologies that cover a wide range of temperature and length requirements for any application.

### Typical continuous operating temperature



### Self regulating heating technology



**Hot Pipe:** The core expands enough to disrupt almost all of the electrical paths. Almost no heat is generated

**Warm Pipe:** In response to warmth, the core begins to expand microscopically disrupting the electrical paths. Less heat is generated

**Cold Pipe:** In response to cold, the core contracts microscopically opening up electrical paths. More heat is generated

### High Power Retention technology:

- BTV and QTVR cables have a design life of at least 20 years.
- XTVR and HTV cables include new breakthrough materials and nVent's High Power Retention (HPR) technology, resulting in an even higher performance: 95% power after 10 years and design life of at least 30 years.

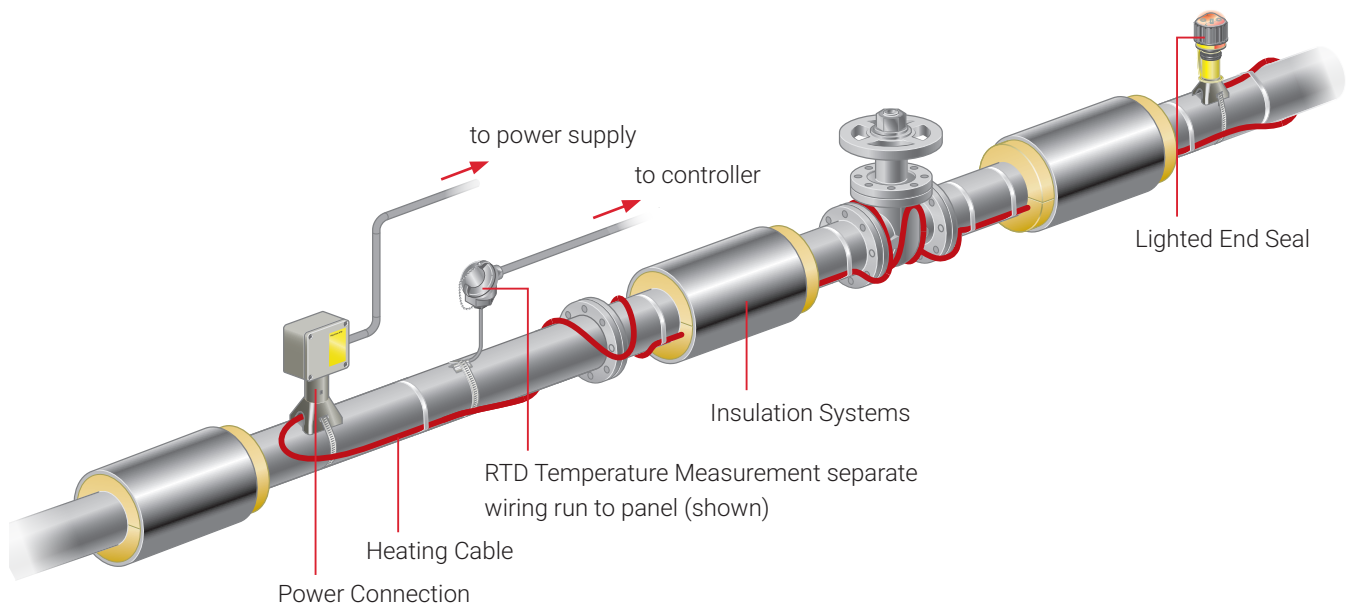






## More than just a heating cable

- Our **components** allow for fast installation and reliable electrical connections.
- Our **control systems** range from simple mechanical thermostats to advanced control and central monitoring, with DCS integration for full visibility.
- We offer the right accessories, fixing materials, warning labels, and more. So, your entire heating system is certified and performs to its best.



As an endorsement of our product quality and our commitment to providing customer value, we offer extended product warranty programs.

Our systems are tested to the most stringent industry standards and certified by major agencies including FM, CSA, UL, PTB, Baseefa, NEPSI, DNV, ABS, etc





## Heat tracing design & support

### We can do it with you.

With our FREE heat tracing design tools, you can create your own heat-tracing design in a few simple steps:

- Enter design parameters and pipe dependencies
- Get optimal result for your application, including bill of materials
- Request a quote online

Visit our website and start immediately, with **TraceCalc Net** (online), or **TraceCalc Pro** (FREE download).



### We can do it for you.

We are experts in electrical heat tracing systems, providing turnkey project services around the world. From concept to delivery and even during operations: we can optimize your heat tracing projects for timing, budget and scope with a fully integrated approach and utilizing time-tested methods and tools.

Contact us today at [thermal.info@nVent.com](mailto:thermal.info@nVent.com)



Learn more about our applications and installations on our YouTube channel  
<https://www.youtube.com/user/ThermalControls>

### Visit [nVent.com/RAYCHEM](http://nVent.com/RAYCHEM)

Our website provides all the latest tools and information you need to design, select, and purchase a complete heat-tracing system. Use our web-based program, or download design software to help you with your projects.

Browse and find the most up-to-date product brochures, data sheets and installation instructions.



We have the capabilities to make the difference in any project, from increasing safety to adding comfort while lowering total installed costs.

We are where you need us, with more than 11,000 employees and partnerships with leading wholesalers, we service the globe. We travel the globe to support our customers in their most exigent projects, providing design and installation support where needed.

**600+**  
Patents

**11,000+**  
Global  
workforce

**One nVent**



Positioned to serve  
fast-growing  
economies



Global  
customers



Local capabilities,  
and localized  
solutions

**120**  
Locations  
(Manufacturing Facilities,  
Warehouse/Distribution Centers  
and Service Locations)

**nVent.com/RAYCHEM**

thermal.info@nVent.com

 @nVentThermal

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Our powerful portfolio of brands:

**CADDY**

**ERICO**

**HOFFMAN**

**ILSCO**

**RAYCHEM**

**SCHROFF**



**nVent.com**