



# HEATING SYSTEMS

## Cata-Dyne™

Explosion-Proof Gas Catalytic Heaters

- Heaters
- Enclosures
- Pipeline Systems
- Line Heaters
- Flo-Dri Scrubbers
- Accessories







Cata-Dyne™ by Thermon Heating Systems Inc. is the industry standard in infrared gas catalytic heaters, enclosures, pipeline systems and accessories. With over 40 years' experience, Cata-Dyne™ is truly the benchmark in innovation for space and spot heating applications in both hazardous and non-hazardous environments.

Cata-Dyne™ infrared heaters are the most efficient conversion of hydrocarbon fuels to infrared energy compared to any other competitive brand on the market today. Cata-Dyne™ products are, in many cases, highly compatible with our other product lines— Caloritech™, Ruffneck™, and Norseman™— to provide complete heating solutions for industrial and commercial applications.

Thermon Heating Systems Inc. is a world leader in the development and production of advanced heating and filtration solutions for industrial and hazardous area applications. To find out more about Thermon Heating System's other brands and services visit: [www.thermon.com](http://www.thermon.com).

# Gas Catalytic Heaters

## WX Explosion-Proof Gas Catalytic Heaters

Designed for spot or space heating applications in hazardous locations.



- Comfort heating, freeze protection for equipment and drying or curing processes.
- 24 different models in natural gas or propane, ranging from 1,250 – 60,000 Btu/hr and from 12 – 600V.
- 3" (76 mm) depth cabinets.
- Gas, electrical and accessory connections located on the back of the heater.
- Certified to ANSI Z83. 20a-2010/CSA 2.34a-2010, standard for gas fired low intensity heaters.
- CSA Certified for Class I, Division 1 & 2, Group D, Temperature Code T2C.
- Factory Mutual (FM) certified for Class I, Division 1, Group D, Temperature Code T2C.
- CE marked, ATEX and EAC certified.

## MKII Explosion-Proof Gas Catalytic Heaters

Designed for hazardous location spot or space heating applications with low profile mounting requirements.

- Side mounted controls for low profile installation.
- Comfort heating, freeze protection for equipment.
- 6 different models in natural gas or propane, ranging from 5,000 – 40,000 Btu/hr and from 12 – 120V.
- Gas, electrical and accessory connections located on the side of the heater.
- 3" (76 mm) depth cabinets.
- Certified to ANSI Z83. 20a-2010/CSA 2.34a-2010, standard for gas fired low intensity heaters.
- CSA Certified for Class I, Division 1 & 2, Group D, Temperature Code T2C.
- FM certified for Class I, Division 1, Group D, Temperature Code T2C.



## WXS Slim Line Explosion-Proof Gas Catalytic Heaters

For applications requiring a greater heat intensity than our WX, MKII and BX models.

- Designed for traditional installations and in compact enclosures for valves, regulators and instrumentation.
- 1 ½" thinner design for applications with space installation constraints.
- QuikSTART heater technology reaches full operating temperature in half the time.
- 12 different models in natural gas or propane, ranging from 1,750 – 56,000 Btu/hr and from 12 – 240V.
- FM certified for Class I, Division 1, Group D. Temperature code T2B.
- Available in USA only.



## BX Series Explosion-Proof Gas Catalytic Heater

For applications requiring a greater heat intensity than our WX and MKII models.

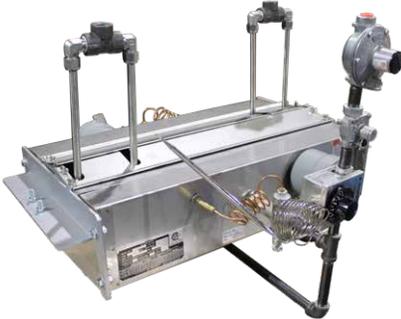
- 23 different models available in natural gas or propane, ranging from 1,500 – 72,000 Btu/hr.
- FM certified for Class I, Division 1, Group D, Temperature Code T2C
- Available in the USA only.



# Natural Gas Catalytic Line Heaters

Provides heating of high pressure natural gas prior to pressure reduction to prevent equipment freezing and the formation of hydrates.

- Cata-Dyne™ heaters are certified to ANSI Z83.20a-2010/ CSA 2.34a-2010 standard for Gas-Fired Low Intensity Heaters.
- CSA and FM certified for use in Class I, Division 1 or 2, Group D hazardous locations.
- Radiant heating of process coil eliminates heat transfer fluids such as ethylene glycol.
- Available custom engineered units for nonstandard applications.
- Other applications include conditioning fuel gas for natural gas turbines and engines and heating of gas and diluent streams in a variety of process applications.



## MLH Micro Line Heaters

- Available in 3 standard sizes ranging from 10,000 – 40,000 Btu/hr.
- Allows for installation in an existing facility by mounting onto 1" – 2" piping.
- Freeze-off protection for natural gas pressure reduction applications.
- Certified to ANSI Z83.20a-2010/CSA 2.34a-2010.

## LH Line Heaters

- 5 standard sizes ranging from 40,000 – 160,000 Btu/hr.
- Heat transfer coil is designed and built to ASME B31.3 Code for process piping, CRN available.
- Vertical design for effective thermal draft ventilation of heater faces.
- Compliant to CSA B149.1 & B149.3 and NFPA 54.
- Manual, sequential or automatic control available.



# CHS Heating Packages



Provides automated startup and control of Cata-Dyne™ heaters in a zone heating configuration.

- Equipped with explosion-proof infrared heaters and PLC control, packages can be custom designed to meet a variety of applications.
- Cata-Dyne™ infrared heaters are controlled with an integrated hazardous location control panel.
- Single zone or multi-zone control panels available, with up to twelve 24"x72" heaters per zone.
- Applications include comfort heating for industrial buildings, CNG or propane vehicle maintenance facilities and freeze protection for equipment and components.
- Control panels are <sub>c</sub>CSA<sub>US</sub> certified for Class I, Division 1 & 2, Group D, or optional UL<sub>c</sub> certification for Class I, Division 1, Group D, IEC Ex, ATEX.
- Cata-Dyne™ infrared heaters are CSA certified for Class I, Division 1 & 2, Group D, certified to ANSI Z83.20a-2010/CSA 2.34ab-2010, NFPA30A Compliant.



# Enclosures

Cata-Dyne™ enclosures provide radiant heating directly to the bodies of piping and manifold components to prevent frost build up and component freezing.

- Enclosures come fully assembled.
- Stainless steel enclosures provide added longevity for the harshest environments.



## HEA Regulator Enclosures

Provides freeze protection for a wide variety of natural gas pipeline regulators.

- Enclosures are designed for specific regulators and generic applications.

## EPP Pipe Preheater Enclosures

Designed to heat gas upstream of valves, chokes, orifice fittings and regulators.

- Commonly installed in locations where the valves, chokes, orifice fittings and regulators are not easily accessible.



## ERM Rotary Meter Enclosures

Designed to prevent freezing of meters and formation of hydrates that can cause meters to fail or provide inaccurate readings.

- Designed to suit many different rotary meter valves.



## EMV Motor Valve Enclosures

Heats the critical portions of the motor valve to prevent freezing.

- Designed to ensure that all the sensitive portions of the valve are outside of the heated zone.



## EOF Orifice Fitting Meter Enclosures

Designed to heat an orifice fitting directly.

- The enclosure is designed to directly heat the orifice fitting to prevent icing of the assembly.
- Easily accessible entry for maintenance.



## EIGP Instrument Gas Enclosures

Provides freeze protection for instrument supply gas, pilot actuated regulators and related applications.

- Stainless steel enclosure with both single and dual coil models.
- Low pressure fuel gas regulator included.
- Heat capacity ranges from 1,700 – 5,000 Btu/hr.
- CSA and FM certified heaters available.
- Custom designs and sizes available.



## SCH Super Conductor Enclosures

Provides dry penetrating heat for small enclosures housing batteries, radio controls and other moisture-sensitive equipment.

- Innovative heat transfer technology uses radiant heat and conducting rods, creating a moisture free heat source.
- Equipped with a Cata-Dyne™ explosion-proof heater, copper rods, a standard or custom designed metal enclosure and fuel gas train accessories.
- Heating capacity ranges from 1,000 – 5,000 Btu/hr.
- CSA and FM certified and non-certified heaters can be used with this enclosure type.



# Scrubbers



## Flo-Dri Scrubbing Systems

- Removes water vapour and H<sub>2</sub>S from fuel gas.
- Provides clean fuel gas to catalytic heaters to ensure performance and longevity.
- Flow rates from 600 – 9,000 SCFH.
- Maximum operating pressure up to 250 psig (depending on the unit specified).
- Designed and built in accordance with ASME standards.
- Canadian Registration Number available for types G-10 and G-25.

# Pipeline Systems

## Sure Seal™ Pipeline Systems

- Provides efficient infrared heat transfer over large surface areas ideal for both preheat and shrink sleeve application processes.
- Suitable for post weld heat treating.
- Customized options available upon request.
- Utilizes the high temperature G Series catalytic gas heater.
- Models available for 2" – 48" (51 mm – 1219 mm) diameter pipelines.



## G Series Industrial Gas Catalytic Heaters

For use in non-hazardous heating applications such as infrared drying and curing ovens.

- 23 different models in natural gas or propane, ranging from 1,500 – 72,000 Btu/hr and from 12 – 600V.
- Certified by CSA and FM for non-hazardous area applications.

# Accessories

The Cata-Dyne™ product line is supported with essential accessories required to ensure the safe and efficient operation of the units.

- Stratafan™
- Gas Pressure Regulators
- Safety Shut-Off Valves
- Thermocouple Probes
- Battery Cables/Start-up Leads
- Battery Cable Cabinets
- Vent Hood Assemblies
- Wall / Floor Mounting Brackets
- Protection Grills
- Manual Shut-off Ball Valves
- Gas Pressure Test Kits
- P.O.L. Adapters
- Temperature Control Valves





**HEATING**  
SYSTEMS

As a leader in advanced heating and filtration solutions with facilities across North America, Thermon Heating Systems manufactures five of the top brands in industrial heating in addition to a comprehensive line of engineered industrial filtration products including:

**Cata-Dyne™**  
Explosion-Proof Gas Catalytic Heaters

Cata-Dyne™ is the industry standard in infrared gas catalytic heaters, enclosures, pipeline systems and accessories. Customers across a wide range of industries rely on Cata-Dyne™ to supply them with safe, reliable, efficient and versatile infrared catalytic heating equipment for a variety of applications in both hazardous and non-hazardous environments.

Ruffneck™ is renowned for its rugged, reliable and versatile heavy-duty explosion-proof heaters, heating systems and heating accessories. Ruffneck™ has a long and proud history of supplying quality heating products for the harshest industrial environments to a worldwide customer base for over 30 years. Ruffneck™ is well-known in the industry for its “ship the heat in a week” policy, where 95% of all standard orders are shipped within one week of order placement.

**Ruffneck™**  
Heaters for the Harshest Environments

**3L Filters™**  
Engineered Filtration Systems

3L Filters™ has satisfied the most demanding industrial filtration requirements for over 40 years. A broad range of standard and custom products includes liquid filters, strainers, separators, pressure vessels, and engineered products and systems. 3L Filters™ has special expertise for nuclear, petrochemical, water treatment and environmental applications.

Caloritech™ electric heaters, heating elements and heating accessories are well-known in the industry for their quality, reliability, performance and versatility. In addition to standard “off the shelf” industrial heaters and heating systems components, Caloritech™ also offers engineered heating solutions custom designed, manufactured and tested to satisfy customer specifications. No matter what your application or environment, Caloritech™ has a solution to fit your heating needs.

**Caloritech™**  
Engineered Electric Heat

**Fastrax™**  
Track and Switch Heaters

Fastrax® has manufactured railroad track and switch heating since 1995. Fastrax® engineers complete heating packages for the rail industry. Fastrax® track and switch heaters are designed to provide the most efficient heat transfer on rail equipment and components for the coldest environments. In addition to heaters, Fastrax® manufactures fully automatic energy saving controls to complete the rail heating system.

Norseman™ is the most technologically advanced line of explosion-proof electric air heaters and heating accessories, including both forced air heaters and natural convection heaters, as well as unit heaters, panel heaters and thermostats. Norseman™ offers innovative, low maintenance solutions for a wide range of applications in a variety of industrial and commercial environments. Custom engineered heaters or heating systems are available for specialized applications.

**Norseman™**  
Electric Explosion-Proof Heaters

Visit [www.thermon.com](http://www.thermon.com) for detailed product information.

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