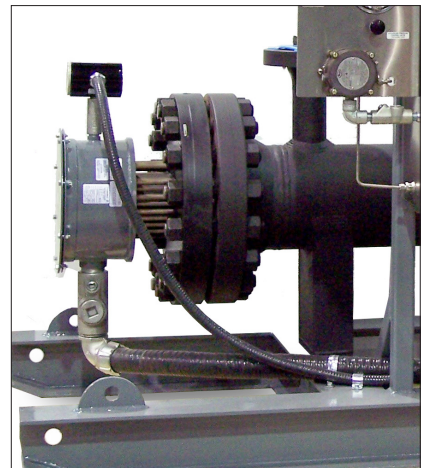
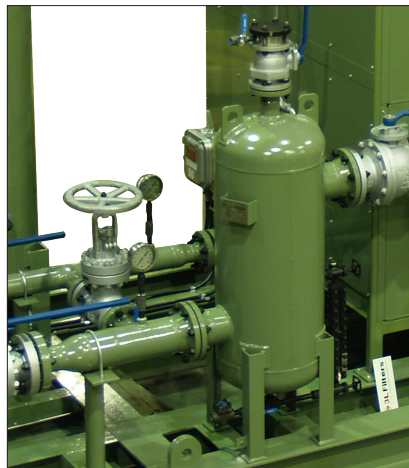




3L Filters™

Fuel Gas Conditioning System (FGCS) Product Guide

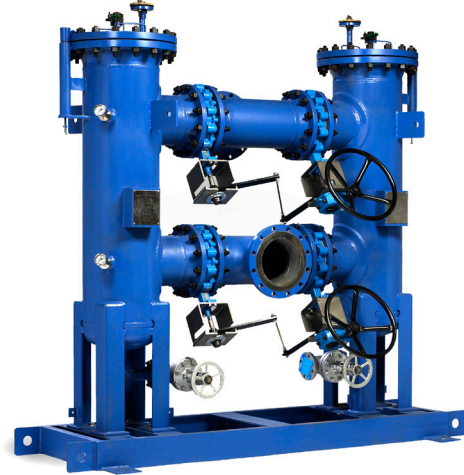


Applications

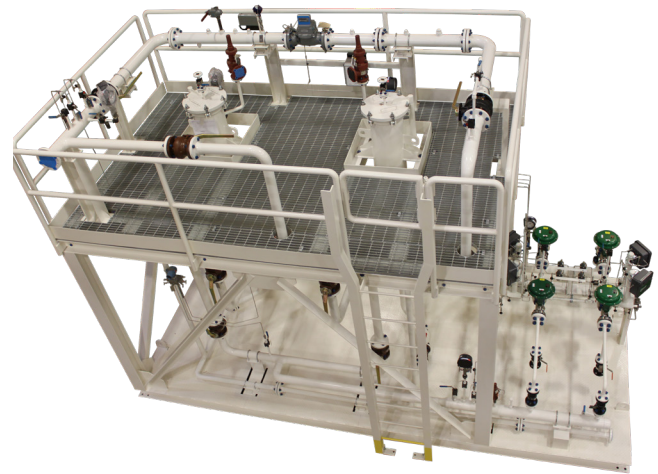
Fuel Gas Conditioning (FGC) Systems treat fuel gas supplies by removing detrimental impurities and moisture content, and adjusting gas process parameters such as temperature and pressure to protect equipment life, ensure operational efficiency and control emissions.

Typical applications include fuel gas conditioning for rotating and static equipment. FGC systems condition fuel for gas turbines and reciprocating combustion engines utilized in power generation, gas compression and fluid pumping equipment. Additional applications include industrial gas fired combustion processes.

The FGC system allows response to fuel property variations to control and optimize fuel gas quality and delivery ensuring reliable, safe and economic equipment operation.



1 Stage – Duplex gas filtration.



3 Stages – Separation, pressure reduction, and dew point control. Gas catalytic heating technology. Two separate modules.

Systems

Thermon designs and manufactures FGC systems to suit the specific requirements of customer applications.

Our FGC systems combine technologies for particle removal, separation, adsorption, pressure control, superheating and dew point control to meet fuel stream specifications.

Thermon has the unique ability to design and manufacture FGC systems using electric and/or gas catalytic fuel heating technology.



1 Stage – Electric natural gas superheating.

Features and Benefits

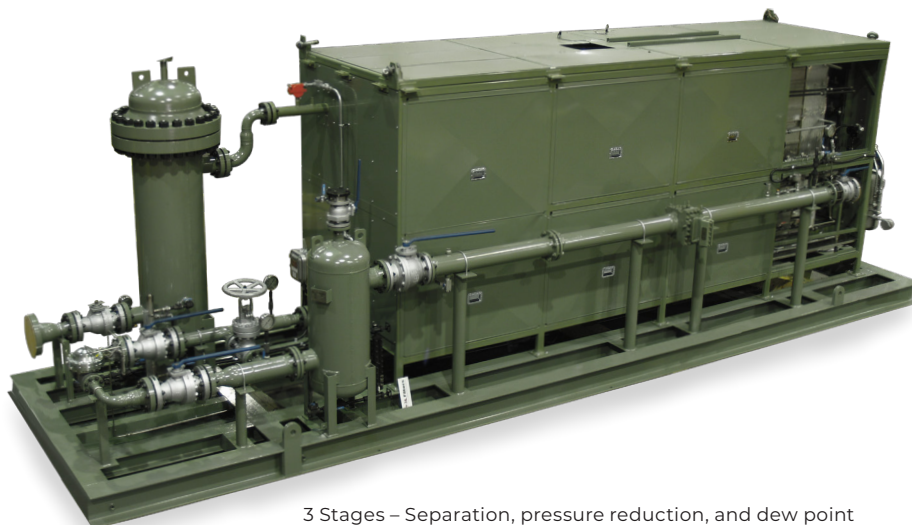
- Process simulation and modeling using Hysys to ensure equipment design meets fuel conditioning requirements.
- Design and manufacturing in accordance with worldwide standards and codes including ASME, NACE, CSA, UL, NEC, IECEX, ATEX and EAC.
- Design and manufacturing of systems utilizing electric process heating and/or catalytic heating technology where electric power is a constraint.
- Multiple stages of conditioning including gas separation, particle filtration, adsorption, pressure reduction, superheating, and dew point control.
- Pressure vessel design and fabrication to ASME Section VIII Div 1 & 2 with U or U2 stamps, Canadian Registration Number (CRN) and National Board registration available.
- Process piping designed and fabricated to ASME B31.3.
- Electronic controls and algorithms incorporating PLC technology, distributed modules and wired or wireless data transmission. **(Available as options)**
- Ancillary equipment availability includes flow metering, gas analysis, and Wobbe index monitoring.
- Additional third party certifications such as Lloyds and TUV available.



2 Stages – Pressure reduction and dew point control



3 Stages – Separation, pressure reducing, and dew point control. Electric gas heating.



3 Stages – Separation, pressure reduction, and dew point control. Gas catalytic heating technology. Flow tube metering option.



3 Stages – Duplex Separation, pressure reducing, and dew point control. Gas electric heating technology.



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



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.



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.



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.



Visit www.thermon.com for detailed product information.

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