

Fuel Gas Conditioning Units for Compressor Engines

SME Products offers new patent pending designs for compressor engine fuel gas BTU control applications. SME Products utilizes a proprietary multi-stream heat exchanger inside a vessel, provided with all of the necessary controls on the vessel for a compact and lightweight unit. These fuel gas conditioning units are the most robust, lowest maintenance, and most cost effective solutions available in the market.

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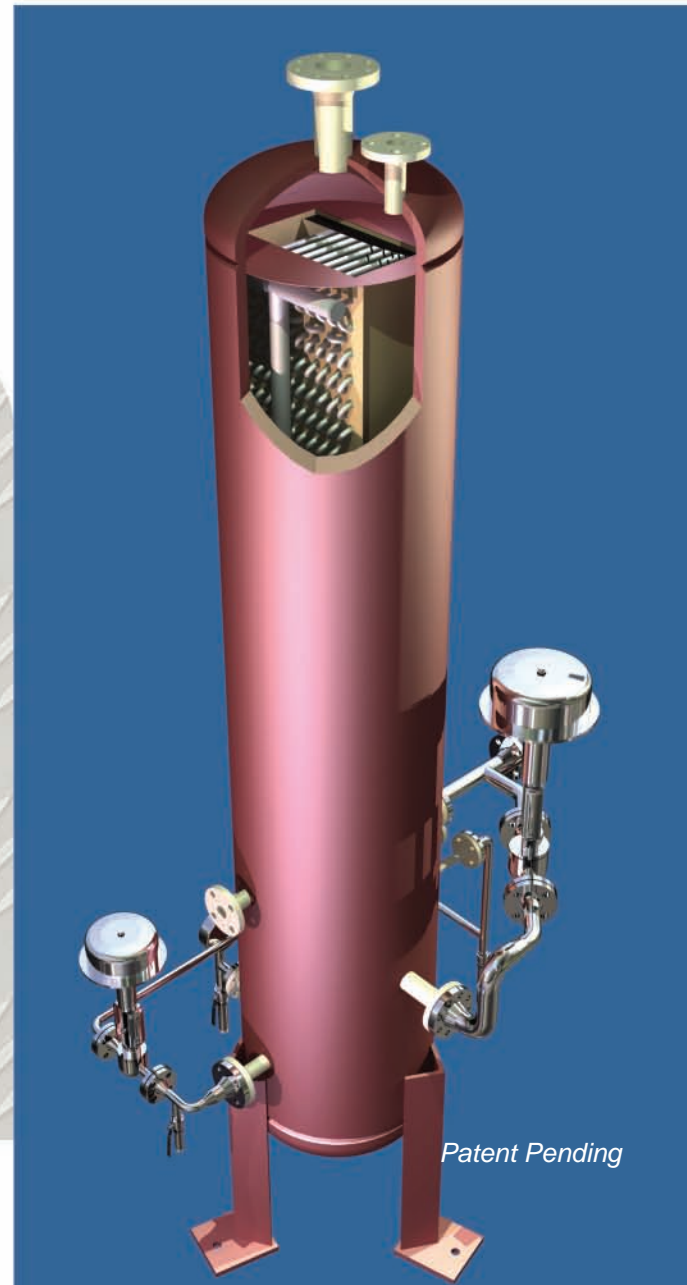
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Compressor Fuel Gas Conditioning Units

High BTU gas or BTU spikes can quickly damage major engine components, dramatically increase maintenance costs, and require de-rating of the engine. A fuel conditioning unit separates and removes the propane & "heavy" hydrocarbons and provides a consistently "lean" BTU fuel stream. The pressure drop of the fuel gas from pipeline pressure to engine supply provides the necessary refrigeration so that no moving parts are typically required. SME can offer a variety of standard configurations and sizes to meet most applications.

Engineering, Equipment, Energy Savings



Patent Pending

Description

High pressure natural gas is taken from the compressor discharge downstream of the aftercooler. Gas entering the fuel conditioner is cooled in the cross exchanger inside the vessel, then further cooled by pressure reduction across the JT valve. The heavier hydrocarbon components are condensed. The lower portion of the fuel conditioning vessel acts as a scrubber where LPG “heavies” are removed. The lean low pressure gas and the produced LPG’s are then cross-exchanged with the inlet gas. The lean, warm, low pressure gas is supplied to the compressor engine. The LPG’s are either sent to the compressor suction scrubber or to LPG storage.

SME Advantages:

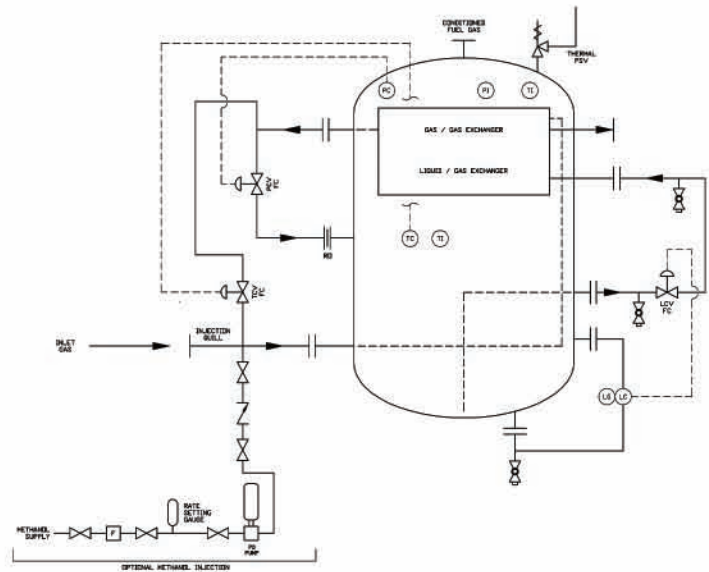
- Complete all-in-one fuel gas conditioning unit
- Compact, lightweight, multi-stream fin/tube heat exchanger design
- Small footprint, ideal for use on offshore platform
- Efficient design, utilizes refrigeration from separated hydrocarbon liquids
- Low maintenance, tubes and fins resistant to plugging or fouling and easy to clean
- Quick payback in maintenance saving
- Standard or custom designed units are available

Standard Construction:

- Corrosion resistant stainless steel tubes with lightweight aluminum fins
- All local pneumatic control system , no electricity required
- Leg or skirt support

Options:

- Various materials of construction.
- Electrical and pneumatic control system with PLC control
- Methanol or glycol hydrate inhibition systems
- Liquid stabilization
- Insulated
- Skid mounted



Technical Specs

Temperature Range	-150 F to 300 F
Pressure Range	50 psig to 1440 psig
Design Code	ASME, TUV, DIN, PED
Heat Exchanger Metallurgy	Stainless, Copper, Cu-Nickel, Alloys, Aluminum
Vessel Metallurgy	Stainless Steel, Carbon Steel