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Why Partner with Velcon Process?

- Velcon Process works with customers as Partners, not as a traditional vendorsupplier
- Focus on your Process Margins
- "Optimized" Products for Applications
- New Technology and Improved Performance

CHEMFLO PRODUCTS • PERFORMANCE SEPARATIONS

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- Velcon Velcon Process
- Coalescer Elements and Systems

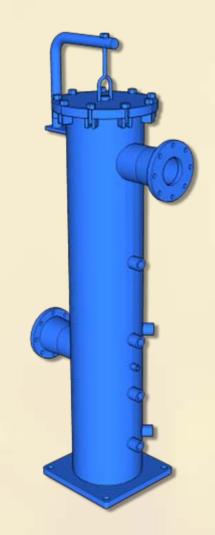
Often called "Reverse Flow Coalescers" or "Vertical Coalescers"

- 0.1µm, 0.3µm and introducing 1µm, 5µm and 10µm
- Inside-out flow, often vertical systems
- Pleated Filter-Separator Elements
 - Replace Filter Separator Depth tubes with Pleated, High Capacity Cartridge Elements
- Filter Separator Elements and Systems
 - Horizontal and Vertical and 1µm
 - Outside-in flow
- Mechanical Separators
 - Usually 5µm or 10um
 - Mist Eliminators, Cyclonic, Vanes, Mesh Pads, Re-Packs

Liquid-Gas Coalescers Applications

Liquid-Gas Coalescers are used in:

- Natural Gas
 - Protect Screw & Reciprocating Compressors
 - Recover Lube Oil After Screw Compressors
 - Reciprocating Compressor Lube Oil Discharge
 - Coal Bed Methane
 - Protection of Sweetening and Dehydration Facilities
 - Protection of Catalysts and Mole Sieve Towers
 - Removal of Oil, Condensate and Water
 - Removal of Particulate and Aerosols
- Fuel Gas
 - Protect Gas Turbines and Engines
 - Protecting Burners at Steam Generators
- Industrial Gases
 - Acetylene, Hydrogen and other industrial gases
 - Instrument Air





Velcon Process Coalescers

Efficiencies:

- 0.3µm
- 0.1µm
- and introducing:
- 1µm
- 5µm
- **10**µm

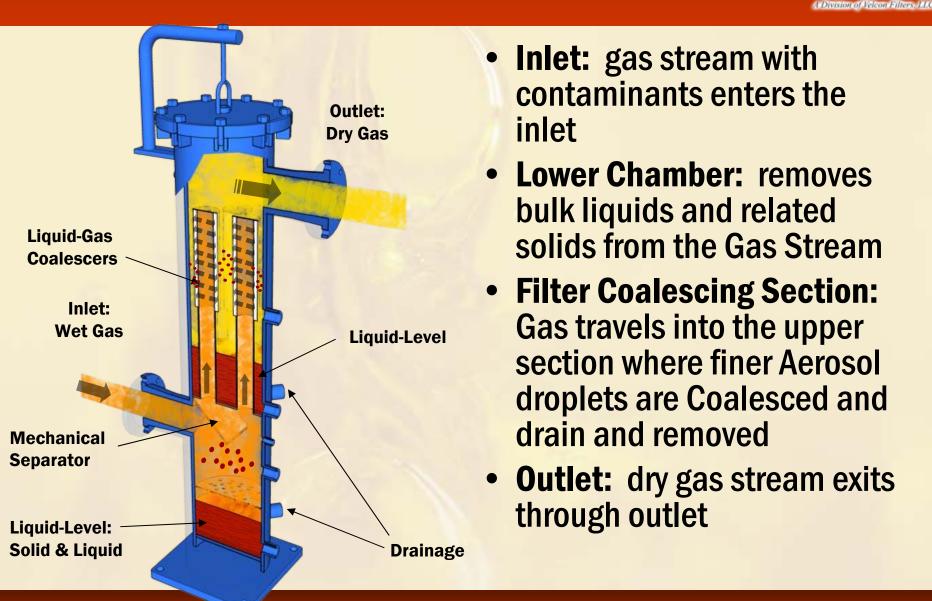
"Optimized" Medias available for :

- Sour gas
- Amine Carry-over
- Glycol Carry-over
- Contaminant Loadings





Vertical Gas Coalescer Vessel



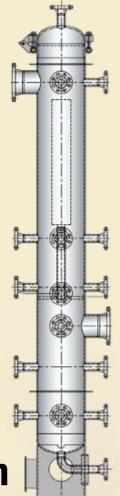
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- Full Access Closure
- Two Separate compartments
- Level Controllers
- Level Gauges
- Differential Pressure Indicator
- Drains
- Vent
- Optional High Level Alarms and Shutdown

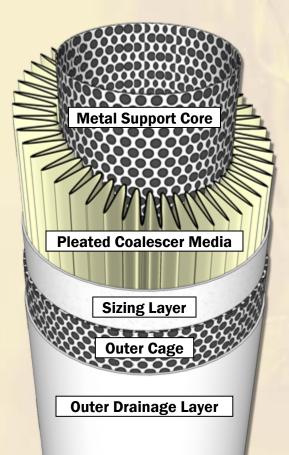


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New All Synthetic Liquid-Gas Coalescer

Velcon Process' New LG Liquid-Gas Coalescers are designed to remove aerosols and fine particulate contaminants from natural gas streams. The LG Liquid-Gas Coalescers utilizes proprietary, high performance *ALL SYNTHETIC* coalescing media in a pleated configuration to improve performance



- High Performance Coalescing Media:
 - Pleated Microfiber LOWER DRY PRESSURE DROPS
 - Naturally hydrophobic/oleophobic microfibers LOWER SATURATED (WET) PRESSURE DROPS

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- High Performance Microfiber Medias SUPERIOR DIRT HOLDING
- Applications:
 - Lube Oil Recovery Systems
 - Reciprocating Compressor Discharge
 - Protecting Dehydration and Amine Systems
 - Turbines
 - Lean Burn Engines
- Superior Contaminant Holding:
 - Excellent for Coal Bed Methane (CBM)
 - High Liquid and Particulate Loadings

LG640 Sour Gas Coalescer

- Synthetic Coalescer "Optimized" for Sour Natural Gas
 - Remove aerosols and fine particulate contaminants from natural gas stream
 - Utilize proprietary, high performance polyester coalescing media in a pleated configuration that improves performance in severe applications

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- High Performance Synthetic Pleated Media
 - Increased Separation Efficiencies
 - Superior Contaminate Handling Capacities
 - Excellent Performance in Low pH, High Contaminant Systems
- Applications
 - Sour Natural Gas
 - Removal of Hydrocarbons, Water and Particulate
 - Protection of Equipment and Catalysts
- Product Performance
 - Micron Rating: 0.3 µm
 - Removal Efficiency: up to 99.98%

Gas Coalescer Vessel Sizing



- Flow Annular Velocity, Media Flux Rate and Nozzles. Most commonly specified:
 - 0.5 or less psid dry dP
 - 2 psid saturated (wet) dP
- Specific Gravity/Density
- % Contaminant/Liquid Loading
 - Size for liquid hold up volume
- Temperature and Pressure
 - Example: for LG640 All Synthetic Element 0.67 s.g. natural gas removing 100 ppmw condensate aerosol density 43.7 lb/cft
 - 300 psi up to 7500 scfm
 - 150 psi up to 5000 scfm

- Replaces Filter-Separator Tubes
- Lower clean pressure drop
- Better filtration and coalescing efficiencies

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- Available in 4.5", 5.5" & 6" outside diameter
- Available in lengths up to 72 inches

Velcon Process' Pleated Filter-Separator

- New 1µm (coalescer usually 0.3µm)
- Available in Inside-out and Outside-in Flow
- Combines Filter-Separator and Coalescer into one element, thus, doing the same job in one element
- Pleated coalescing media with higher dirt holding than rolled fiberglass tubes or polyester tubular filters
- Allows flexibility in media choice to optimize efficiency and greater chemical compatibility: Polyester, Nylon, Microfiberglass, and Metal Medias Available



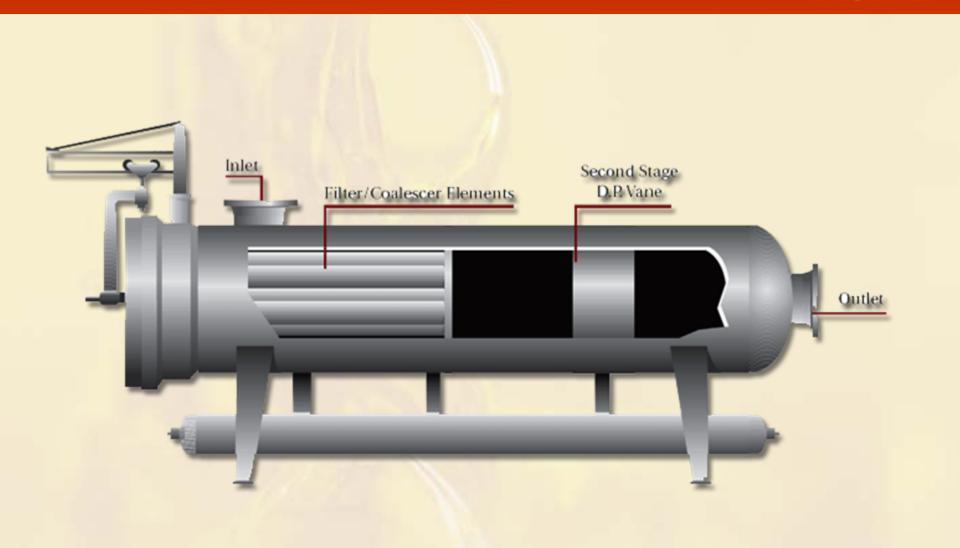


Benefits and Solutions:

- Handle High and Variable Liquid Loadings
- More efficient than a Vane alone
- Best for bulk removal not high tolerance polishing



Filter Separator Vessels



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CFG336 and CFG372 Filter-Separator Elements



Velcon Process' CFG336 and CFG372 fiberglass elements are designed to remove aerosol contaminants and solid particulates from natural gas streams. These elements fit into Filter-Separator vessels.

- Applications:
 - Removes liquids and solids from natural gas applications
 - Protect Reciprocating Compressors
 - Protection of Engines, Catalysts, Compressors, Heat Exchangers, Dryers and Other Equipment
- Performance
 - Improve Gas Quality
 - Steel Core Construction
 - Outer Cotton Sock
 - Gasket Seal
- Product Performance
 - Micron Rating: 1µm
 - Also available in CFG536, CFG324 Style





Equipment – usually 5µm or greater

- Mist Eliminators
 - Vanes
 - Mesh Pads
- Cyclonic Separators
- Scrubbers
- Knock-out Drums/Slug Catchers

Vanes and Cyclonic Separators are excellent in 2-stage systems

