







# The leader in gas dehydration & filtration

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WELLHEAD PRODUCTION
INSTRUMENT AND FUEL GAS
LANDFILL & DIGESTER GAS
COAL-BED METHANE
OFF SHORE





vangastech.com

#### Van Gas Technologies

specializes in
natural gas and
biogas dehydration
and filtration.
With an emphasis
on technological
innovation and
customer support,
Van Gas delivers
world-class solutions
and services that are
both cost-effective and
environmentally friendly.

#### BTEX Free and Environmentally Compliant

As the industry leader in absorbent desiccant technology, Van Gas offers economical and effective solutions for natural gas dehydration with no glycol or BTEX emissions. Our absorbent desiccant systems provide low cost solutions for moisture removal from natural gas to meet gas pipeline specifications lower than 7lbs of water per MMSCF.



## **NATURAL GAS DRYERS**



#### Pipeline PLD Series

Van Gas Pipeline Dryers are an innovative and cost-effective solution for removing water vapor from natural gas and biogas. The process is very simple. Wet gas enters the bottom of the dryer vessel and flows upward through a bed of deliquescent desiccant, which absorbs moisture as it slowly dissolves. Dry gas exits the top of the vessel. Simply add desiccant periodically. No electricity or fuel is required for operation.

Under many conditions, Pipeline Dryers can be used to meet pipeline moisture

specifications. And, because no BTEX or VOC emissions are produced, Pipeline Dryers are a valuable tool for complying with strict environmental regulations.

- Standard Pipeline Dryers are available with maximum working pressures of 280 to 1440 PSIG.
- Standard flow capacities available up to 14 MMSCFD.
- Designs for higher pressures and flows are available on an engineered-to-order basis.

#### **INSTRUMENT & FUEL GAS**



#### Mini Dryer MD-35

Need to protect your gas instruments from water condensation and freeze-ups? The Van Gas MD-35 single-tower adsorption dryer is the ideal solution for protecting sensitive equipment and instrumentation such as gas meters, regulators and oxygen sensors. This compact and versatile dryer will reduce the water content of gas streams to dew points as low as -40°F, virtually eliminating entrained moisture from small or intermittent gas flows.

- MD-35 is designed for flows up to 3000 SCFH.
- Can handle temperatures up to 120°F.
- No power requirements or moving parts.
- Effective performance in cyclic flow applications.



#### Regenerative Dryers

Looking for a dryer that is engineered for long service life and dependable dehydration? Van Gas Regenerative Dryers are an ideal solution for conditioning instrument gas and fuel gas to protect vital equipment such as micro turbines and internal combustion engines. Van Gas Regenerative Dryers deliver dew points from -40° to -100°F.

#### Some features include:

- · Explosion-proof enclosure.
- DC power for remote locations.
- Easy integration into your package or installation.



# Fuel Gas Separator and Dehydrator

Want to get dry fuel at an affordable price? Have your engines been damaged by wet gas?

- Numerous flow capacities available.
- Large Sump area acts as a two-phase separator.
- Positive shut-off valve protects engines from water slugs.
- Environmentally friendly desiccant ensures a low dew point.
- No electricity or fuel required.
- Ideal for installation at remote locations.



#### **BIOGAS**

Landfill gas is generated by the anaerobic decomposition of organic matter deposited in landfills. Van Gas Technologies is a certified industry partner in the U.S. EPA's Landfill Methane Outreach Program and a solutions provider for the U.S. Department of Energy biogas-to-energy demonstration projects.

Digester gas is produced through the digestion of organic matter, such as sewage sludge or agricultural waste. The effluent gas consists mostly of methane and carbon dioxide together with water vapor and trace quantities of organic compounds.



# LANDFILL AND DIGESTER GAS



#### Refrigerated Gas Dryers

Whatever the volume of your landfill gas or digester gas, Van Gas Technologies can build a dryer to your specifications. All Van Gas refrigerated gas dryers include the patented Smart Cycle demand control to reduce energy consumption and maintain a constant dew point.

Other features and benefits include:

- A patented dew-point sensor which precisely monitors gas temperature.
- Digital dew-point readout on the control panel.
- Modular construction for easy servicing.
- Stainless steel tubes and non-fouling heat exchangers are standard.
- NEMA 4 is standard, optional Z class enclosure available.

### DESICCANT

Van Gas Technologies is the leading manufacturer of absorbent deliquescent desiccants for natural gas and biogas dehydration applications. Van Gas offers three grades of absorbent desiccant for meeting gas pipeline specifications of 5 to 7 lbs of water per MMSCF. Each grade of desiccant can be used in a single tower or series of dryers to reduce consumption rates and maximize moisture removal.





#### GasDry Prime™

- An economical absorbent desiccant for basic dehydration.
- Ideal for drying fuel gas or as the first desiccant in a series of gas dryers.
- Formulated for operating temperatures at or below 100° F.



#### Gas Dry Peak™

- Designed for single and sequential tower natural gas dryers.
- Formulated for operating temperatures at or below 80° F.
- Designed for intermediate performance levels.



#### GasDry Max™

- The most powerful desiccant for meeting stringent pipeline standards.
- Ideal as a final desiccant in a series of gas dryers.
- Formulated for operating temperatures at or below 100° F.

Van Gas Technologies is also the leading source of adsorbent desiccants used for dehydration and purification in natural gas and biogas applications. Commonly known as dry desiccants, our activated alumina, silica gel and molecular sieve desiccants offer numerous performance benefits including high adsorption capacity, low abrasion and uniform bead size. Van Gas adsorbent desiccants are used for drying small quantities of instrument gas and for use in regenerative gas dryers.



#### Activated Alumina

- Large surface area to maximize adsorption of moisture vapor.
- Dew points of -40° F can be achieved.
- Does not soften or disintegrate readily when immersed in water.



#### Silica Gel

- Available in indicating and non-indicating forms.
- Dew points of -40° F and lower can be achieved.
- Ensures optimum air flow through the dryer.



#### Molecular Sieve

- · Uniform moisture retention capacity.
- Dew points of -100° F and lower can be achieved.
- One of the most aggressive forms of desiccant on the market.





### **FILTRATION**

#### GF102 Series Coalescing Filters

With a high-efficiency Van Gas GF102 coalescing filter, never again struggle with contamination from lubricating oils, soaps, glycol and liquid hydrocarbons. While most coalescing filter elements on the market today are rated down to .3 microns, Van Gas high-efficiency elements have been designed for efficiencies down to .01 microns with a maximum oil carryover of only .008 parts per million.

#### Other features and benefits of the GF102 series include:

- Vessel designs for flows up to 90 MMSCFD at 1440 PSIG.
- Closure types include swing-bolt, blind flange, and blind flange with davit.
- · Large sump area for knock-out and collection of bulk liquids.
- Optional factory installation of dump system and instrumentation.
- · Rapid lead-times from the factory.



#### GF200 Series Coalescing Particulate Filters

Consisting of fourteen housings, the Van Gas GF200 Series Filter housings are ideally suited for instrumentation gas applications. With connection

sizes of 1/4" to 3", the GF200 Series Filter Housings are capable of handling flows ranging from 1.5 to 20 MMSCFD at a maximum pressure of 250 PSIG.

- Made of cast aluminum and coated with an epoxy powder coating to prevent chipping or cracking.
- Comes standard with a pop-up pressure differential indicator to alert when the element needs replacement.
- Manual ball-type drain valve is also standard on all GF200 Series filter housings.

# ENGINEERED SOLUTIONS



While Van Gas Technologies provides an extensive line of natural gas dryers, filters and other natural gas dehydration equipment, there are times when our existing product lines will not fulfill your unique requirements. Therefore, we have taken great pride in engineering and manufacturing custom solutions to meet customer requirements. With extensive knowledge, experience, and on-site engineering and manufacturing facilities, we are able to create custom solutions for both the most simple and demanding applications.

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## **ELEMENTS**



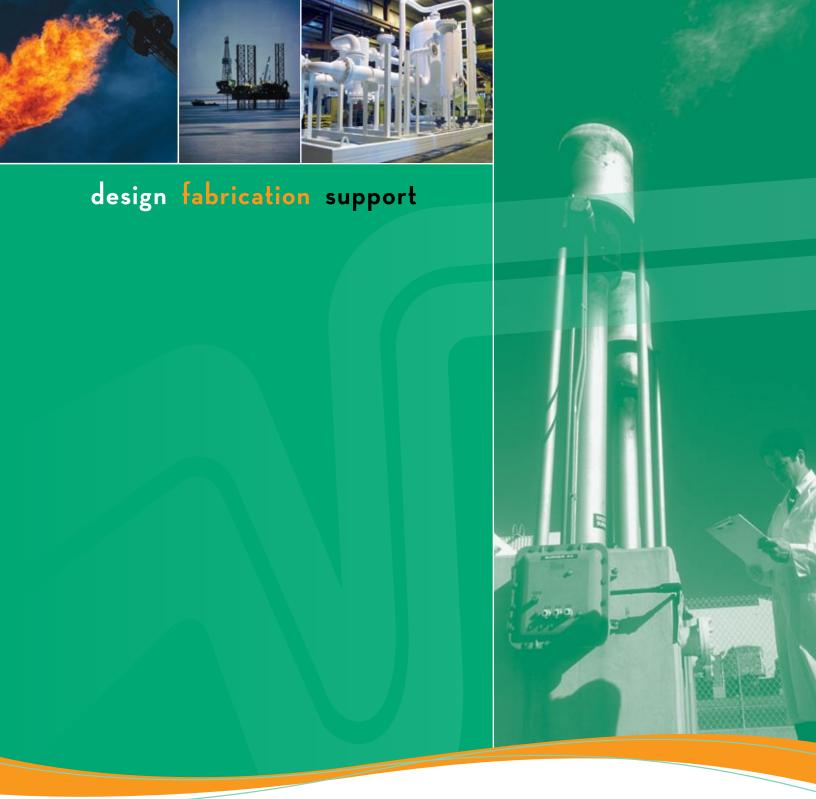
Van Gas offers a full range of coalescing and particulate elements for reliability and performance in a wide range of gas applications.

A few of these applications include protection for glycol dehydration systems, desiccant bed protection, fuel gas filtration and low surfacetension mist removal. With ten element grades to remove oil, oil vapors, liquid water or particulates, Van Gas can provide a solution to your gas filtration needs.

Van Gas elements are designed with stainless steel inner and outer support cores, a chemical-resistant polyester prefilter layer and highefficiency borosilicate glass media to provide optimum economics and performance. Oil and particle removal from 25 to .01 microns can be achieved depending on the choice of element grade.

Mist extraction elements are also available.

By selecting the right filtration material and rating, operating costs can be minimized while maintaining product performance and process efficiency. With Van Gas elements, you are assured of complete protection from contamination in your gas pipeline.





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