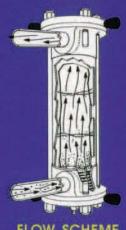


# Gas Scrubber Filters

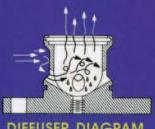


Filtration Systems for Clean, Dry, Oil Free, Compressed Gas

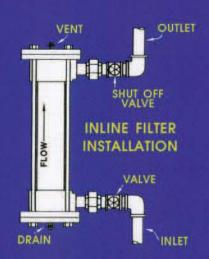
# FLO-DRI, INC.



FLOW SCHEME



DIFFUSER DIAGRAM





# **FLO-DRI GAS SCRUBBERS**

Heaters and other gas appliances are designed to work on clean, dry natural gas or propane.

# Introducing the Flo-Dri Filter Systems

Here is a unique, patented filter system that is engineered for long life, and features an easy cartridge change out, low pressure drop, low maintenance and low cost. These filters are designed for gas conditioning applications at point of use. The Flo-Dri filters remove aerosols, contaminants, H2S, moisture, oil, and any solids. It is these contaminants that cause instrument and catalytic heater failure and costly down time.

#### ★ Wide Range of Filter Sizes

Applications for Flo-Dri filters can vary in size and ranging in flow rates from 1 to 150 SCFH per unit. Unlike coalescers, Flo-Dri filter systems handle varying flow rates with low "Delta P" and no reintrainment of moisture or oil.

### ★ Flo-Dri Filters Provide Ultra Clean, Dry Gas

Flo-Dri Filters use various media cartridges to remove contaminant particles down in size to 0.5 micron, providing ultra-clean gas for critical applications, thereby increasing performance and assuring longer equipment life and fewer repairs.

# **BASIC FEATURES**

Flo-Dri works in Three Stages:

- 1. Impaction As the contaminated fuel gas enters the lower chamber of the Flo-Dri filter, it expands and impacts on the surface of the diffuser assembly, which causes the larger droplets to fall to the bottom.
- 2. Adsorption The fuel gas continues upward through the filter media where contaminants are adsorbed.

# 3. Mechanical Entrapment -

(Low micron Rating to 0.5 micron and above) In the final filtration stage, the gas leaves through a special filter which traps any remaining particles. The result is that the gas is virtually free of any contaminants.

# PATENTED "QUICK CHANGE"

Flo-Dri filters have been designed with an exclusive, patented "Quick Change" feature that provides the easiest cartridge replacement in the industry. Simply follow these easy rules:

(1) Relieve the pressure and bleed the unit, (2) Twist the top, and (3) lift off the top. This makes it easy to service the unit without removing it from the gas line.

#### WHY FLO-DRI IS A LEADER

#### Quick Change System

Flo-Dri's patented Quick Change heads are designed to give fast, easy, no tool cartridge AA: (Activated Aluminum) - Moisture change out without removal from the gas line. This unique feature reduces change out time, maintenance and equipment down time.

#### • Adsorptive Filtration/Separation Principles

Flo-Dri filters adsorb contaminants and do not require steady flow rates like coalescers do. Flo-Dri media will remove contaminants at variable flow rates without reintrainment because liquid and aerosols are trapped on the multiplicity of sights in the activated media. It cannot be reintrained by fluctuation in the gas velocity. Therefore, Flo-Dri filters provide better efficiency and more flexibility under all operating conditions. Flo-Dri filters do not permit liquid reintrainment while coalescer type filters are known to allow this when subject to bursts of high velocity gas.

#### No Channeling Possible

Flo-Dri's patented exclusive Spring Loaded Cartridge constrains the media from movement due to the passage of the influent gas. In addition, it prevents sidewall bypass - bed channeling, assists in easy cartridge change out and maximizes media use, resulting in more economical media cost. "Channeling" is a common occurance in many competitors' housings which are not spring loaded, but, with Flo-Dri, you can depend on consistent high quality gas.

#### • Low "Delta P" at Rated Flow

Pressure Drop is normal in any filter systems. Flo-Dri filters have been specially engineered for low Delta P of less than 3 PSID between 1 - 150 SCFH, throughout the life of the media. The more expensive coalescing filters, which show a relative low clean differential pressure initially, quickly increases to 2 to 3 times their clean pressure drop as the cartridges attain "steady state" performance. This process results in considerably higher costs because of the difference in energy requirements for the same flow

# Types of Cartridge Media used in Flo-Dri Filters

AC: (Activated Carbon) - Oil and Odor removal

and contaminant removal to low **Dew Points** 

MS: (Molecular Sieve) - Moisture and contaminant removal to very low Dew Points.

QUICK CHANGE

XX: (Molecular Sieve) - For sour gas removal at low flow rates.

# A new Media is being tested which has been developed for H<sub>2</sub>S removal.

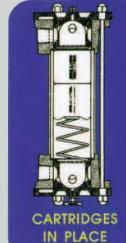
The Flo-Dri Gas filter is designed to remove these contaminants. For the optimum performance, your Flo-Dri dealer can recommend the appropriate filter for your application depending on the inlet analysis and outlet requirements of the gas you wish to use. The Flo-Dri Gas filters contain a desiccant based filter cartridge. Different filter cartridges are available depending upon contaminants in the fuel source.

#### Notes:

Discard any cartridges in an environmentally acceptable manner, in full compliance with all applicable governement regulations.

#### ISO 9001 - 2000 Quality Management

System has been implemented **CRN** has been applied for and approval is pending.





# TYPES OF CARTRIDGE MEDIA AA - MOISTURE

AC - OIL AND ODOR

**MS** - CONTAMINATION REMOVAL

XX - H<sub>2</sub>S REMOVAL

#### **TO ORDER, SPECIFY:**

1. MODEL NUMBER

2. CARTRIDGE REPLACEMENT NUMBER FOR EXAMPLE: 10AA OR 25XX, ETC.

Model No.	Working PSIG	No. of Cartridges	Overall Length	Overall Diameter	Port to ' Port	Pipe Size NPT	Replacement Cartridge No.	Bad Volume Cu. inch
G-10	150	1	7 1/3"	4"	5"	1/4"	10	12.56
G-25	250	2	12 7/8"	5"	8 1/8"	3/4"	25	30.78
G-60	250	3	18"	6 1/4"	12"	1"	60-2	84.47
G-100	250	4	23 1/2"	7"	12 1/2"	1 1/2"	100-3	199.06
G-150	250	2	25 1/4"	9 1/2"	17 5/8"	2"	150-4	376.52

U.S. Patent No.s 4177049 & 3186148. Other patents are pending

12/03



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