
DRY GAS FILTERS

Making the world safer, healthier and more productive.



UNDERSTANDING THE ROLE OF DRY GAS FILTERS

The function of Dry Gas Filters (also known as Gas Particulate or Dust Filters), is to remove solid contaminant from natural gas, where no liquid is present. Equipped with high-efficiency synthetic cartridges, this vessel offers an efficient method of filtering small-to-moderate quantities of solids to protect essential equipment in pipeline applications.

Major Applications of Dry Gas Filters:

- Downstream of dry desiccant beds
- Downstream of catalyst beds
- Metering and gate stations
- Fuel gas to compressors
- Protection of regulators and valves

Contaminants Filtered by Dry Gas Filters May Include:

- Catalyst fines
- Desiccant particles
- Dust
- Pipeline scale
- Sand and silica

Gas Particulate Filters are available in a vertical or horizontal configuration in a wide range of sizes to suit every application.

UNDERSTANDING THE DRY GAS FILTER

How it Works

Natural gas enters the vessel through the cartridge compartment. The flow direction is outside-to-inside through the filter elements, which allows for maximum usage of the filter media. A number of crucial design aspects include nozzle positioning, filter element spacing, pressure drop, nozzle and riser velocity. Positive element seal and riser open areas are important aspects of the design.

Units are constructed to ASME code requirements and can be furnished with a variety of quick opening closures and various element styles to suit most application.



Cartridge Selection

The standard cartridge for a Dry Gas Filter is the high efficiency JPME pleated synthetic series cartridge. The cartridge is designed with an inner and outer core to protect against erosion in high flow applications for maximum solids loading capacity. A TRI-SHiELD depth cartridge for shear sensitive solid contaminant applications is available. Consult factory for non-standard requirements.

JPME SERIES

Material of Construction	Polyester
Maximum Temperature	240°F
Minimum Temperature	-60°F
Change Out Differential	12 - 15 PSID
Collapse Pressure	>75 PSID
Available Micron Rating	0.5, 1, 10
Standard Sizes	312, 318, 324, 336, 536

JFS SERIES

Material of Construction	Polyester
Maximum Temperature	240°F
Minimum Temperature	-60°F
Change Out Differential	12 - 15 PSID
Collapse Pressure	>75 PSID
Available Micron Rating	0.3, 0.5, 1, 5, 10
Standard Sizes	312, 324, 336, 348, 372, 512, 524, 536, 548, 572

Typical Model Number

G	R	A	C	1	C	27	F	2	C	A	N	□
Jonell Systems Series Gas Housings	Closure Style A Flat swing bolt B Domed swing bolt D RFWN flange top F RFSO flange top S Screw top Y Yoke or internal door		Qty of Elements Number of Elements		Pressure Rating 27 275 psi 74 740 psi 144 1440 psi		Inlet/Outlet Style F RFSO L RFLWN N FNPT W RFWN	Inlet/Outlet Size (inch) 2 12 3 14 4 16 6 18 8 20 10 24	Internal Material A 304 SS C Carbon Steel U 316 SS	Internal Cart. Size 3½" OD x length A 12" D 36" C 24" E 72" 4½" OD x length F 12" J 36" H 24" K 72" 5½" OD x length P 36" R 72"	O-Ring Material N Buna-N V Viton E EPDM S Teflon encapsulated silicon T Teflon encapsulated Viton F Flat Gasket	Options Assigned by Jonell Systems to indicate specials
Vessel Orientation D Vertical Z Horizontal			Housing Material C Carbon Steel U 316SS Wetted A 304SS Wetted		ASME Code C ASME U stamp N No U stamp							