

JCI Filtration & Separation Inc.

Filtration & Separation Solutions

## **Gas Particulate Filters**



## Overview

The function of the Gas Particulate Filters (also known as Dry Gas or Dust Filters) is to remove solid particulate from natural gas, in which no liquid contaminant is present. Equipped with high efficiency cartridges, this type of vessel offers an efficient method of filtering small to moderate quantities of solids to protect critical equipment or remove carryover contaminant from various processes, which may include:

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



The contaminant filtered by a Particulate Filter may include:

> Sand and silica

Dust

Desiccant particles

Pipeline scale

**Catalyst fines** 

### **Gas Particulate Filters**



# **How It Works**

Natural gas enters the vessel via the cartridge compartment. The flow direction is outside-to-inside through the filter elements, which allows for maximum usage of the filtering media. A number of crucial design aspects include nozzle positioning, filter element spacing, pressure drop, nozzle and riser velocity and flux rates. Positive element seal and riser open area are also crucial aspects of Dust Filter 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 any application.

## **Element Selection**

The standard element for a JCI Gas Particulate Filter is the high efficiency JPME pleated polyester media for maximum solids loading capacity. The cartridge is designed with inner and outer cores to protect against erosion in high flow applications, available in carbon or stainless steel. A micro glass depth element for shear sensitive contaminant and high temperature applications is also available. Consult factory for non-standard efficiency requirements.



#### JPME SERIES

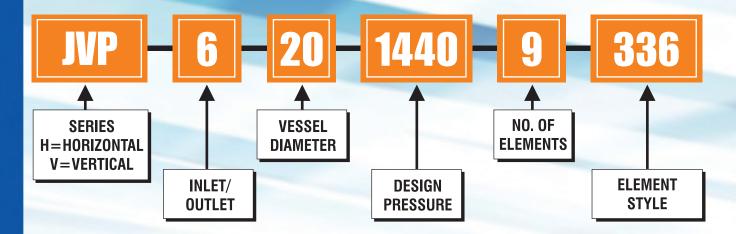
Material of Construction	Pleated Polyester
Maximum Temperature	240°F
Minimum Temperature	-60°F
Change Out Differential	15 PSID
Collapse Pressure	>75 PSID
Efficiency Rating	0.3, 0.5, 1, 5, 10
Available Sizes	312, 318, 324, 336, 536

### JFG SERIES

Material of Construction	Fiberglass
Maximum Temperature	275°F
Minimum Temperature	-60°F
Change Out Differential	15 PSID
Collapse Pressure	>75 PSID
Efficiency Rating	0.3, 0.5, 1, 5, 10
Available Sizes	312, 318, 324, 336, 536



### **Vessel Nomenclature**



# **Inquiry Information**

As a minimum, the following information is required for all Coalescing Filter sizing and pricing inquiries:

- Gas volumetric flow rate
- Gas specific gravity
- Gas operating pressure range
- Gas operating temperature range
- Type of contaminant to be filtered
- Amount of entrained solids (if available)
- Type of application
- Vessel design conditions, including pressure, temperature and corrosion allowance

#### **Contact Information:**

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