

# Cartridge Filters: Provides best in-pipeline protection

Grand Prix range of Cartridge Filters was specially developed over the years to meet most demanding duties.

Cartridge Filter constitutes filter housing, filter cartridges, tube sheet to mount cartridges, and a positive sealing arrangement for cartridge depending upon type of cartridge, and choice of end connections. Positive sealing arrangement for Cartridge Filter ensures no particle migration or fiber migration, even after high differential pressures.

Cartridge Filters are used for removal of solid contaminants from the liquid and gas stream and provides the best and most popular in-pipeline protection in process plant, chemical plants, refineries and petrochemical plants.

### **Principles of Operation**

Cartridge Filters operate on the peripheral inflow method of particle retention. The contaminated fluid enters the body inlet and is distributed evenly around the filter cartridges. Filtration takes place from Outside to Inside. Solids are collected on the outer periphery of the filter cartridges & clear filtrate flow through the outlet.

### Performance

The comprehensive range of Cartridge Filters is precision engineered and manufactured to the highest standards demanded by industry. Units are available for line size up to 40 inch, 1500 # and with particulate removal up to 0.3 micron.

Cartridge Filters are permanent filters mounted both vertically & horizontally into pipelines although in larger units line connections can be incorporated to suit specific requirements.

# Features: Design & Construction Advantages

#### **Mechanical Features**

- ASME Pressure Vessel Code, Section VIII, Div.- 1, U Stamped and Div. 2, U2 Stamped
- National Board or IBR certified
- Cartridge elements available in various media viz. Cotton, Fiber Glass, Polypropylene and SS sintered.
- Designed with Quick Opening Closure for easy access to change elements.



### Body

Grand Prix has come up with a novel modular design concept that enables use of fabricated body whilst maintaining competitive price. This design philosophy offers certain unique advantages:

- Wide range of body materials available (CS-NACE or HIC Tested/SS /DSS /LAS /Clad)
- High pressure requirement easily achieved
- Minimum maintenance requirements
- Compact design minimal installation space required
- Elements are easily accessed without removing filter body.

# GRAND PRIX ®

# **Cartridge Filters**

- Simple design gives reliable performance
- Easy installation into existing pipework

### **Elements**

Each Cartridge Filter housing consist of a number of cartridge elements. Cartridge elements are available in various medias viz. Cotton, Fiber Glass, Polypropylene and SS sintered cartridges.

The quantity and type of cartridge required may vary to suit given operating conditions and customer's specific process requirements.

The Cartridge Filter is provided with Top cover with Swing Bolts / I-Bolts that helps in easy opening/closing of the lid. Larger units are provided with lifting davit arm as an option for ease of cover removal. For critical applications Quick Opening Closures (QOCs) are also being provided to suit client's requirement.

## **Applications**

Grand Prix Cartridge Filters have been working satisfactorily for LIQUID (Lean Amine/ Treated Water/ DM Water/ Effluent Water) and GASEOUS (Natural Gas/ Fuel Gas/ Hydrocarbon Gas/ Hydrogen/ LNG) service/fluid, with installations both in India and abroad.

Cartridge Filters find application in wide range of industries:

• Oil & Gas

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- Power Fertilizer
- Refineries Petrochemicals
  - Steel
- Chemicals
- Process Plants

For more information on other Grand Prix products viz. Pressure Vessels, Strainers, Dry Gas Filters Cyclone Scrubber, Gas Separators, Filter Separators, Silencers and Skid Mounted Packages contact:

### **GRAND PRIX ENGINEERING PVT. LTD.**

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