

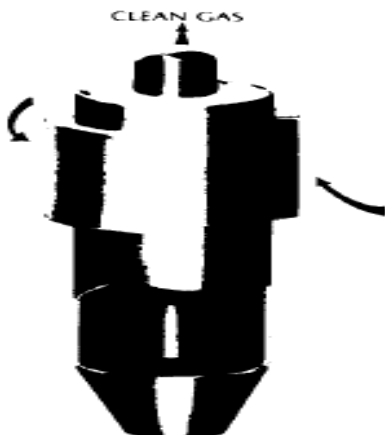
## Multicyclone Separator

### Multicyclone Separator/Scrubber: Highly efficient separators for removal of liquids/solids from gas flows

Grand Prix Multicyclone Separator/Scrubber is a high-capacity separator designed for removing liquids and/or solids from gas flows with a minimum pressure drop. It is self cleaning, requires no scrubbing liquid, can handle relatively large quantities of entrainment and needs only periodic blow down for removal of collected material. It is highly efficient over a wide range of operating conditions.

#### Principles of Operation

The entrainment- laden gas stream enters the distribution chamber of the scrubber, which consists of multiple small cyclone tubes arranged in parallel. The gas enters each of the tubes through two tangential openings located near the top. The resulting centrifugal action moves the liquid droplets and/or solid particles to the outer periphery of the tube and downward, thus causing them to drop into the collection chamber at the bottom of the vessel. The cleansed gas then reverses direction at the vortex of the cyclone tube and moves upward through the riser and into the exit plenum.



#### Performance

##### Efficiency

Efficiency of the Grand Prix Scrubber is influenced by particle size, distribution and liquid loading. Units are available for line size up to 40 inch, 1500 # and with solid and liquid particulate removal 5 microns and larger.



##### Pressure drop

Pressure drop is largely a function of tube velocity and gas density. It may vary from a few inches of water to several psi, depending upon the application

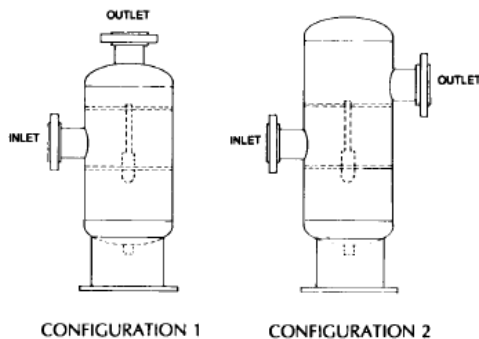
The life cycle of the filter is dependent upon dust and dirt loading and the corresponding increase in pressure drop.

## Multicyclone Separator

### Features: Design & Construction Advantages

#### Standard Configurations

Grand Prix Scrubbers are available in standard in-line (inlet & outlet 180° apart) Configuration-1 or side inlet-top outlet Configuration-2 as shown below. Other orientation may be used to suit client's piping arrangements.



#### Mechanical Features

- ASME Pressure Vessel Code, Section VIII, Div.- 1, U Stamped and Div. 2 U2 Stamped.
- National Board or IBR certified

- Standard scrubbers are constructed of carbon steel (NACE or HIC Tested), however, scrubbers can be custom designed and built from stainless steel and other steel alloys.
- Cyclone tubes are manufactured from shock and wear-resistant, high alloy cast steel, to provide dependable, trouble-free service under severe operating conditions.

#### Applications

The Grand Prix Scrubbers are used in a variety of applications in the natural gas and chemical processing industries. These include:

- Suction and discharge for air and gas compressors.
- Gas compressor inter stage and after coolers.
- Gas and fuel transmission lines
- Air and steam lines
- Product recovery
- Gas injection and withdrawal.

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

**GRAND PRIX ENGINEERING PVT. LTD.**

Plot No. 82 , Sector 25, Faridabad, Haryana-121004, INDIA

Tel: +91-129-4151820/4097700 Fax: +91-129-4151821

E-mail: [mail@grandprixfilters.com](mailto:mail@grandprixfilters.com); Website: <http://www.grandprixfilters.com>