# K-FLOW Engineering

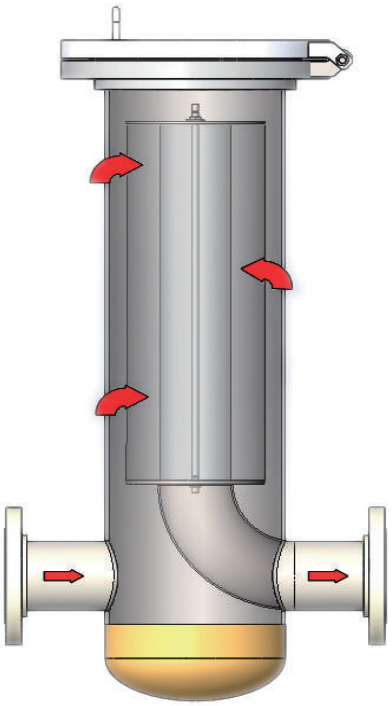
## Gas Filtration & Separation Products

**D**ry **G**as **F**ilters
**G**as **C**oalescers
**G**as **F**ilter **S**eparations

Continuous filtration without interruption  Filtration & separation specialist

## DRY GAS FILTERS  GP Series

K-Flow dry gas filters are designed to remove final traces of dirt , pipe scale and other solid contaminants from process air and other gases . Unlike conventional multi-candle filters , the K-Flow element design concept maximises the effective filtration area for a given vessel size resulting in lower differential pressure and extended service life . Standard design includes hex through bolted cover and quick opening closure . In addition to the standard range of filters K-Flow is able to offer customized filter design and capacities to suit the particular process/application demands of the customer.



## Housing design and construction

As standard the K-Flow GP series filter housing is designed and constructed in accordance with the ASME VIII , Division 1 pressure vessel construction code and available with ASME U stamp or without stamped.

## Materials of construction

The standard materials of construction of the K-Flow GP series filter are carbon steel or stainless steel. Where appropriate a cost effective option incorporates a carbon steel housing with stainless steel downstream of the filter element . special requirements for low temperature application and/or for NACE application can also be accommodated .

## Filter Element

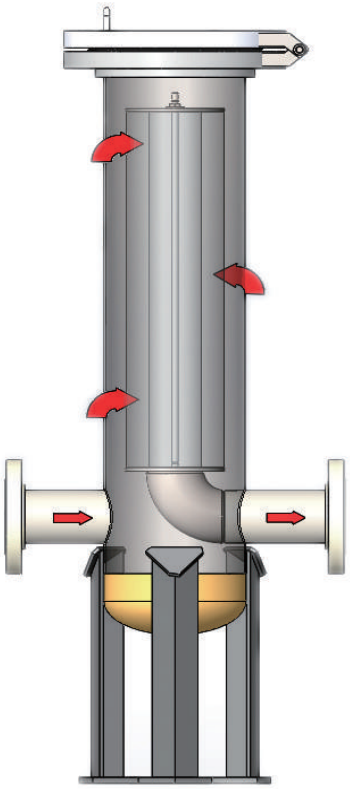
The K-Flow GP series filter incorporates the efficient radial fin element design which provides the largest filtration area for a given element size. This increases dirt holding capacity minimizes pressure drop and results in an extended service life . The filter media support structure utilizes carbon steel or alternatively stainless steel . The standard element design ensures its integrity up to a differential pressure of 45 psi. Special design are available for applications which demand higher differential capability.

## Filter Media

K-Flow offers an extensive range of synthetic and natural fibre filter media suitable for use with most process gas. In addition , stainless steel sintered mesh media can be incorporated in the existing element design for more demanding application.

## Series 150 /300 /600 ANSI Class 150 / 300 / 600 LB

| Model | Conn. Size | Dimensions | | | | Selected filter elements | |
|---|---|---|---|---|---|---|---|
| | | OD | OH | C | Ser.space | Sewn end | Molded end |
| GP-1F | 1″ | 65/8 | 24 | 18 | 16 | KE-0365K5 | KF-1439K5 |
| GP-1.5F | 1.5″ | 65/8 | 28 | 18 | 16 | KE-0525K5 | KF-3235K5 |
| GP-2F | 2″ | 85/8 | 28 | 18 | 16 | KE-0526K5 | KF-3236K5 |
| GP-3F | 3″ | 85/8 | 39 | 24 | 24 | KE-0527K5 | KF-3237K5 |
| GP-4F | 4″ | 103/4 | 42 | 28 | 24 | KE0528K5 | KF-3238K5 |
| GP-6F | 6″ | 123/4 | 51 | 30 | 26 | KE0529K5 | KF-3239K5 |
| GP-8F | 8″ | 16 | 66 | 32 | 36 | KE-0530K5 | KF-3240K5 |
| GP-10F | 10″ | 20 | 76 | 36 | 36 | KE-0531K5 | KF-3241K5 |
| GP-12F | 12″ | 24 | 78 | 42 | 39 | KE-0532K5 | KF-3242K5 |



## GAS COALESCERS CG Series

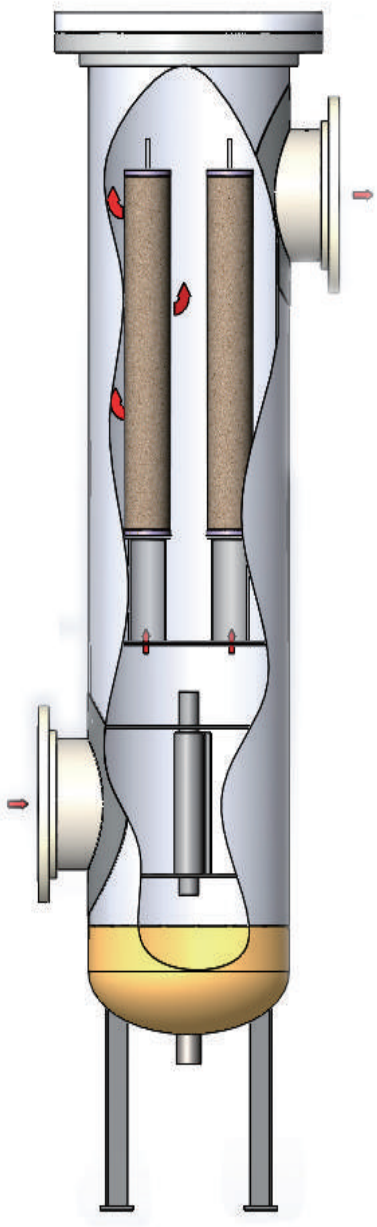
The series CG coalescing filter is a multi-stage device . at the inlet of the primary separation section , small diameter cyclones or vanes remove liquid and solid particles by utilizing gravitational and centrifugal or inertial forces.

By removing the bulk of the entrained liquid in this stage, the K-Flow design increases the life of the final separation elements and holds the pressure drop buildup to a minimum. This allows for more time between changing the elements, reducing operating costs and downtime.

Replacement of the coalesce elements can be accomplished in a minimum amount of time and effort through the use of a full diameter closure.

Both cyclone or vane mist extractor separators are completely maintenance free , self-cleaning and contain no replacement or moving parts to cause a shutdown. Coalescer elements utilizing various grades media of materials, including high performance micro glass, polyester, and polypropylene.

It can remove solid particles and liquid droplets 0.3 micron and larger from gas stream.



## Design advantages

Standard design units are available for a wide range of temperatures, pressures, and flow rates .

Coalescence and separation are combined in a single stage.

Quick opening closure for easy access to change the filter elements.

Equipped with distributor to eliminate turbulence of the separated liquid in the sump.

## Housing design and construction

As standard the K-Flow CG series gas coalescers housing is designed and constructed in accordance with the ASME VIII , Division 1 pressure vessel construction code and available with ASME U stamp or without stamped.

Available only in a vertical configuration due to coalescing action .

Design pressure up to 1480 psig and above pressure upon requested .

Design temperature are -20℉-350 ℉ ( -29℃- 177 ℃ )

## Applications

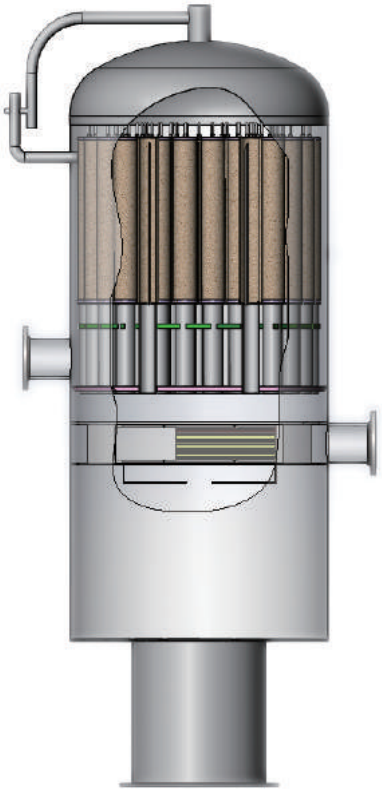
| | | | |
|---|---|---|---|
| Ammonia & Urea plants | Chemical plants | Oil mist removal | Molecular sieve protection |
| Critical gas process | Desiccant bed protection | Fuel gas conditioning | Gas transmission/ metering |

## GAS FILTER SEPARATORS GFS Series

K-Flow GFS series gas filter separator are high-efficiency separation of both solid and liquid contaminants . Contaminated gas enters and impinges on the pipe risers where large bulk contaminats drop out of the gas stream.

The risers also serve to distribute the gas evenly through the first stage filter/coalesce elements from outside to the inside.It is here where fine particulate contaminats is trapped and removed from the gas stream. The elements also serve to coalesce the fine liquid contaminat in the gas stream prior to entering the second stage where the coalesced droplets are removed.

The clean dry gas then exists the series GFS.



## Housing design and construction

As standard the K-Flow GFS series gas filter separator housing is designed and constructed in accordance with the ASME VIII , Division 1 pressure vessel construction code and available with ASME U stamp or without stamped.

Available in a vertical or horizontal configuration.

Design pressure up to 5000 psig and above pressure upon requested .

Design temperature are 250°F ( 121 ℃ ).

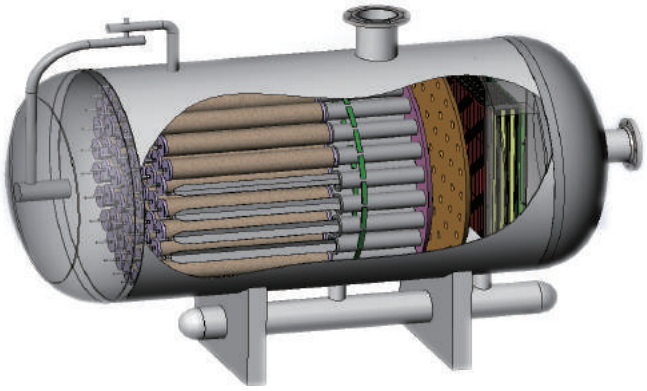
Available materials of construction in carbon steel, stainless steel 304 , 304L , 316,316L .

## Design advantages

Available with quick opening closure for easy replacement of coalescing filter elements.

Custom-sized vessels and internals

Liquid sump-custom controls available



## Applications

Gas distribution systems
Compressor stations
Pipelines
Natural gas plants
Power plants
Refineries
Metering and regulation stations
Petrochemical plants
Chemical plants .





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