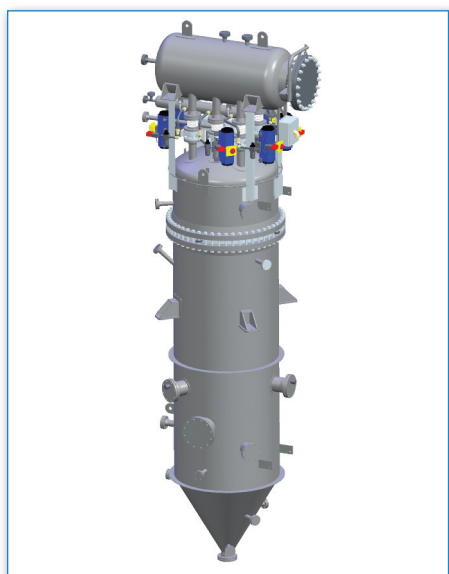


► GSV Filter Systems

Gas Solids Venturi Pulse Blowback



Mott HyPulse® GSV filter systems can remove greater than 99.999% of all solids depending on the application. With the GSV filter, it is not necessary to take the filter offline for a blowback cycle. While the filter continues in forward flow, independent groups of elements are blown back with a short-duration reverse pulse. Separator plates and downflow gas inlet provide for superior dust control.

Why Use Porous Metal?

- High filtration efficiency
- High temperature
- High pressure
- Corrosion resistance
- Structural integrity
- Cleanable and Reusable

Application Examples:

- FCC 3rd and 4th stage separators
- FCC catalyst hopper vent filters
- Polysilicon
 - Solar and electronics
 - Batch & continuous processes
- Gasification
 - Fuels, chemicals, power
 - Coal, petcoke, biomass, waste
- Pyrolysis
 - Fuels
 - Biomass
- Catalysts from fluid bed reactors
- Polymers and plastic powders
- Reforming catalysts
- Uranium oxides
- Pipe scale in oxygen, steam, process gases

Advantages of Mott HyPulse® Filters and Elements:

- Porous metal media
- Dependability
- Durability
- Efficient particle capture
- Corrosion resistance
- Design flexibility
- High temperature capability
- High pressure capability
- Automatic operation
- Cleanable and reusable media

Benefits:

- Low cost of operation
- Automatic, continuous operation
- Safe with hazardous wastes
- Very high removal levels

Available Porous Metal Element Alloys:

- Stainless steels: 316L, 304L, 310, 347
- Hastelloy® C276, C22, B, X
- Inconel® 600, 625
- Monel® 400
- Alloy 20
- Nickel 200
- Titanium

Factors Affecting Sizing of Filter Systems:

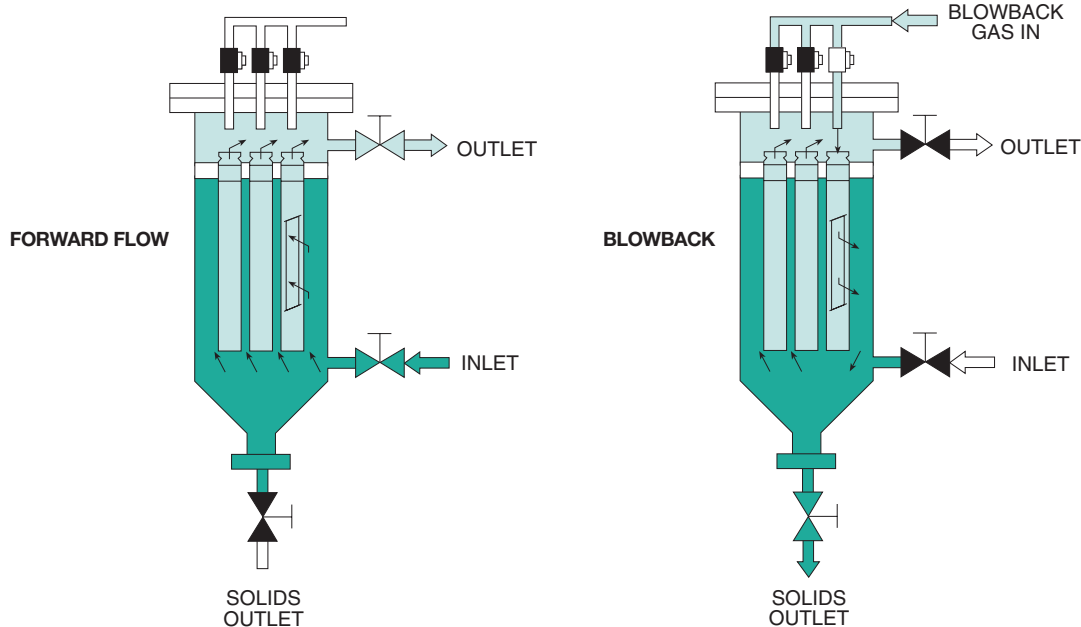
- Gas properties:
 - Density, viscosity, flow rate (peak, normal), dew point
- Allowable pressure drops: clean and dirty
- Solids properties:
 - Concentration: Grams (or grains) per cubic foot
 - Density: Particle, bulk, and cake
 - Particle size
 - Cake permeability: Pressure drop/cake thickness

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Inconel and Monel are registered trademarks of Special Metals Corporation

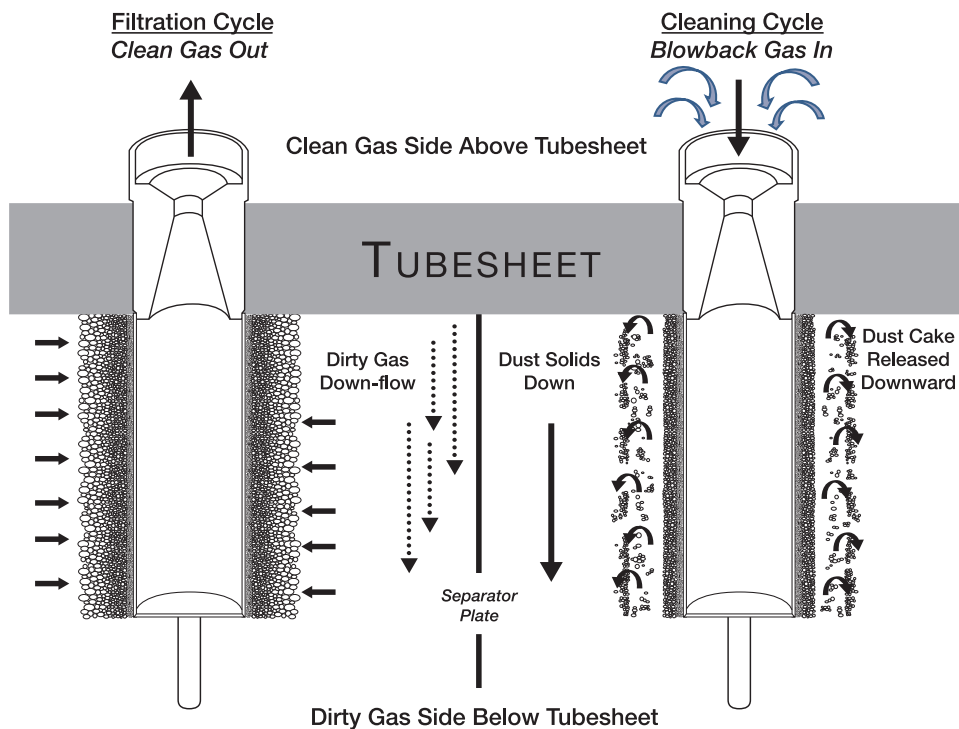
HyPulse® GSV filters are the ideal alternative for applications requiring continuous filter operation. Porous metal elements, which are grouped together, are sequentially pulsed and cleaned while the unit remains on-line. Multiple plenum blowback with separator plates and downflow for dust control offer several distinct benefits over alternate designs:

- Continuous operation
- Superior dust control
- High throughput with minimal backpulse requirements
- Filter areas 2 - 1000+ ft²
- Operating pressures up to 1000+ psi
- Operating temperatures up to 1500°F

GSV Venturi Pulse Blowback Filter



Filtration Cycle and Cleaning Cycle



mott corporation



ISO 9001 CERTIFIED
PSGSV 1214

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