

► Mott provides optimal filtration for industrial gases?

Process Filtration News

May 2007

Porous and fiber metal filtration are well known and accepted methods for separating dry particles from a gas stream. In applications where a high-removal efficiency is critical, filtration has no equal. Compared to other, less efficient methods, filtration is the only one which provides a positive barrier between the process and the "solids free" stream. Mott Corporation can provide several filter options depending upon the industrial gas/solids application.

Gas/Solids Filtration

Mott HyPulse® GSV Gas Filter Systems

Mott's typical filter configuration utilizes a venturi nozzle pulse blowback system which gives it certain process advantages over plenum designs. Because the blowback assembly is manifolded to address each element individually, the GSV Model (Gas-Solids-Venturi) is blownback without shutting down the feed flow. By backpulsing isolated sections of elements sequentially, the entire blowback cleaning operation occurs while the filter remains on line.



Mott GSV filters are individually sized for the specific application. When these filters are operated at or below the design capacity, the elements will provide extremely long service life. Some design considerations required in order to design the appropriate filter include:

- Type of solids
- Solids loading



- Solids particle size distribution
- Gas flow
- Operating temperature
- Operating pressure
- Filtration efficiency

A choice of porous or fiber metal media

Mott Corporation specializes in manufacturing precision porous metal filter media. We have supplied filter assemblies and elements for gas/solids separations for over 45 years. Our installation base includes hundreds of units in a broad spectrum of industries such as Food, Chemical, Pharmaceutical, Nuclear, Electronics, Petrochemical, and Petroleum Refining. Through a Strategic Alliance with **Bekaert Advanced Filtration** (NV Bekaert SA, Zwevegem, Belgium), Mott can also offer fiber metal media for specific low pressure drop requirements. Filtration systems can be designed with elements of either metal media.

Typical gas/solids separation requirements happen in a wide variety of applications. Mott has proven their product and performance in applications such as:

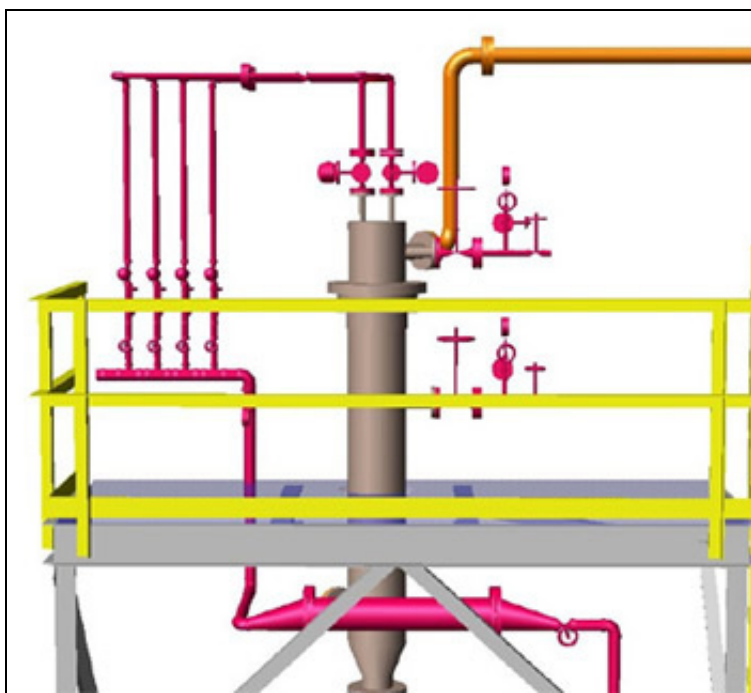
- Catalyst Retention
- Process Gas Filtration
- Hot Gas Filtration
- Radioactive Waste Removal
- Product Recovery
- Oxygen Filtration

High performance permeable metal captures over 99.999% of the solids; critical for valuable or hazardous solids.

Long-lasting, self-cleaning operation

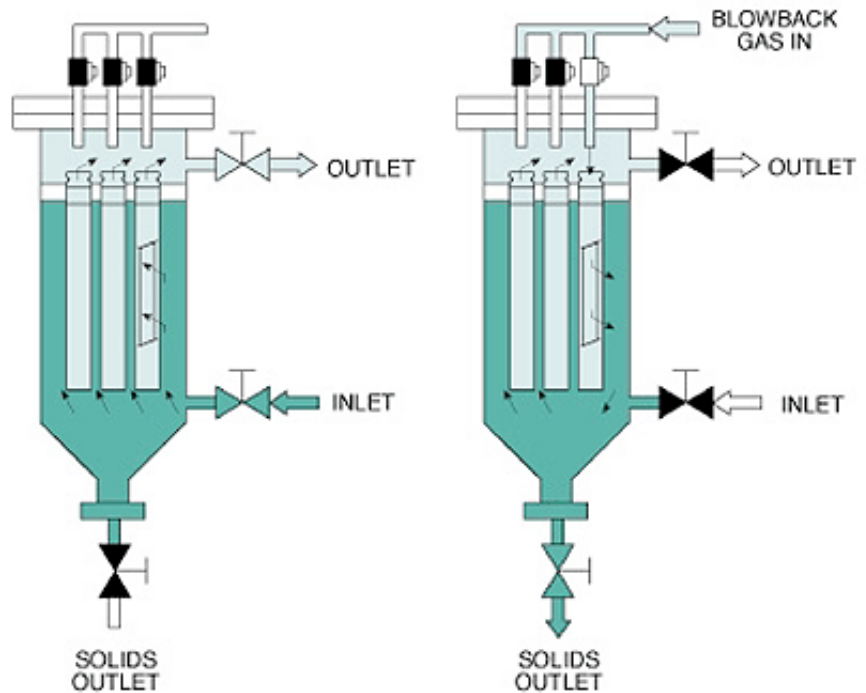
Systems can be fully automated, with solids discharged periodically. The unique nozzle-venturi arrangement of the blowback system minimizes the pressurized gas required for blowback. AND not only are porous metal elements cleanable, they also come in a wide array of alloys that can withstand a variety of atmospheres.





Mott HyPulse filters can be skid mounted and fully automated for maximum convenience, safety and productivity.

Forward Flow **Blowback**



Below is an abbreviated list of particular gas/solids separation conditions under which Mott filtration has been previously utilized:

Gases	Solids
Acetone Vapor	Aluminum Oxide
Calcliner Off	Carbon
Carbon Dioxide	Catalysts

Chlorosilane
Coal Gasification Syngas
Fluid Bed Off Gas
Hydrocarbons
Isobutane
Oxygen
Toluene Vapor

Ceramic Dust
FCC Catalyst
Iron Oxide
Molecular Sieve Dust
Polypropylene
Silica
Uranium Oxide

Proven in custom design and performance

Major engineering firms and design engineers worldwide come to Mott for expertise in applying porous metal solutions to their industrial gas filtration applications. Designing filtration solutions for demanding applications, critical processes, and extreme operating environments, Mott has the experience and technical resources available to scale any project.

From replacement elements, to single filter retrofits, to multi-filter system skids, Mott is a leader in gas filtration and/or separation applications. Mott has a global reputation for delivering quality products, on time, and on budget. Known for strong technical service and customer support, Mott Corporation has participated in hundreds of successful installations all over the globe. We look forward to working with you on your next filtration project.

For more information

Click on the image below to download our [fiber metal gas filtration brochure](#) or our [process systems overview](#). You may also contact us at Process Systems Sales, Mott Corporation, 84 Spring Lane, Farmington, CT 06032, 1-860-747-6333 or Toll-Free 1-800-BUY-MOTT. E-mail: quest@mottcorp.com.

