

► Filtration of inert and specialty gases reach new levels of precision even at low-flow levels?

Semiconductor Industry – High Purity GasShield® Filters

Gas filtration is always a challenge. Mott Gasket Filters provide a simple, proven solution that works extremely well as part of an original design or can be retrofit into a delivery system after installation.

Gasket Filters

More precise filtration in the same footprint

Mott's 316L stainless steel Gasket Filters add a new level of capability to their High Purity GasShield® product line. Retaining the same footprint as Mott's nickel media Gasket Filters, the 316L stainless steel material offers a host of advantages:

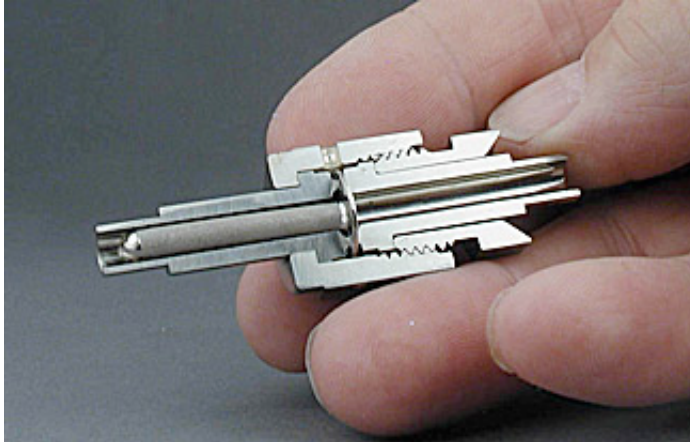
- Perfectly suited for filtration of gases such as carbon monoxide, ozone, and arsine.
- Require no retrofit redesign as they retain the same footprint specifications as Mott's nickel media Gasket Filters.
- Provide precise filtration for flows as low as 1 slpm and up to 20 slpm in both inert and specialty gases.
- Protects particle-sensitive gas control components like regulators and mass flow controllers without adding length to the gas panel or gas stick.



Small and mighty

Small but rugged, Mott's GasShield Gasket Filters are built to withstand extreme operating conditions and deliver optimum filtration performance.

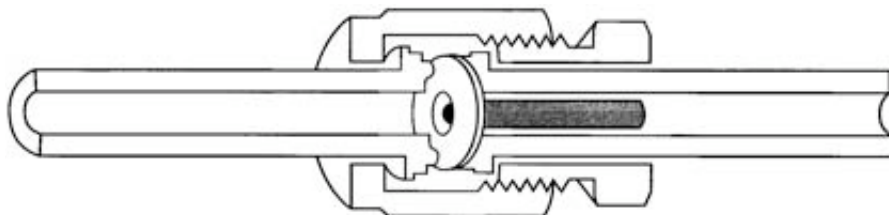
- The GasShield® Gasket Filter fits inside 1/4" face seal fittings, with either 1" or 3" long porous elements
- Available in Mott's patented NanoMetal® Nickel Media as well as 316L stainless steel media they provide true 0.003µm filtration (greater than 99.999999% (9 log) particle removal measured at the most penetrating particle size of 0.08µm)
- Gasket Filters come complete with integral face seal gasket
- They perform perfectly in applications with temperatures up to 450°C (for inert gas) and a maximum differential pressure of 1000 psid (at 20°C)



Part of the performance family

Mott's High Purity Division manufactures all-metal gas filters and systems in configurations ranging from 1 slpm to 200,000 slpm. Materials of construction include nickel, 316LSS and Hastelloy® which provide highly efficient filtration for processes used in the production of integrated circuits. Mott Corporation has been providing unique solutions in the development and application of porous metal media since 1959.

Our lightweight, durable materials improve thousands of applications that require consistent performance (uniform porosity) for gas or liquid flows, cleanability for repeatable use, sound absorption, wicking ability, high temperature tolerance, and high corrosion resistance. Our commitment to partner with customers from invention to delivery, ensures the ideal solution for every application.



From shapes or pieces of porous material to completed filters with hardware, Mott is the expert in porous metal technology. Our people and products have improved processes in a wide variety of industries including chemical, petrochemical, instrumentation, food and beverage, semiconductor, energy, and environmental.

To find out more

To learn more about Mott's new GasShield Gasket Filters or our complete line of porous metal innovations, contact Patty Dillon, Corporate Marketing Manager, 84 Spring Lane, Farmington, CT 06032, Phone: 860-747-6333 / Toll Free 1-800-BUY-MOTT / E-Mail: QUEST@Mottcorp.com or visit our website at www.mottcorp.com.

Our 2-Page Product Sheet:



**GasShield[®] Nickel
and Stainless Steel
Gasket Filters**

fits inside 1/4" face seal fittings

- Mott Metal Metals are Nickel or 316SS for complete compatibility with most inert or specialty gases.
- Allow integration of gas filter without adding length to gas system.
- Filter can filter moisture levels as low as:
- 100 ppb (parts per billion) or 1.017 µm
- All metal, all welded design.
- No particulate shedding.

Nickel Specifications

Filtering Material	GGG-NL-10	GGG-NL-20	GGG-NL-30
Filter Face	1.50" Dia	1.50" Dia	1.50" Dia
Retention (at rated flow)	Greater than 99.999999% (99.999999% of air particles down to 0.005 µm confirmed at flow rate 1000 SCFH) (99.999999% down to 0.10 µm)	Greater than 99.999999% (99.999999% of air particles down to 0.005 µm confirmed at flow rate 1000 SCFH) (99.999999% down to 0.10 µm)	Greater than 99.999999% (99.999999% of air particles down to 0.005 µm confirmed at flow rate 1000 SCFH) (99.999999% down to 0.10 µm)
Material	Nickel	Nickel	Nickel
Face Seal Gasket Size	1.50" dia	1.50" dia	1.50" dia
Element Length (overall)	1.50" dia	1.50" dia	1.50" dia
Maximum Recommended Pressure (PSIG)	1000 psig	1000 psig	1000 psig
Maximum Recommended Operating Temperature	400°C (Inert Gases)	400°C (Inert Gases)	400°C (Inert Gases)
Changeout Interval	System Dependent	System Dependent	System Dependent

Stainless Steel Specifications

Filtering Material	GGG-SS-10	GGG-SS-20	GGG-SS-30
Filter Face	1.50" Dia	1.50" Dia	1.50" Dia
Retention (at rated flow)	Greater than 99.999999% (99.999999% of air particles down to 0.005 µm confirmed at flow rate 1000 SCFH) (99.999999% down to 0.10 µm)	Greater than 99.999999% (99.999999% of air particles down to 0.005 µm confirmed at flow rate 1000 SCFH) (99.999999% down to 0.10 µm)	Greater than 99.999999% (99.999999% of air particles down to 0.005 µm confirmed at flow rate 1000 SCFH) (99.999999% down to 0.10 µm)
Material	316 SS	316 SS	316 SS
Face Seal Gasket Size	1.50" dia	1.50" dia	1.50" dia
Element Length (overall)	1.50" dia	1.50" dia	1.50" dia
Maximum Recommended Pressure (PSIG)	1000 psig	1000 psig	1000 psig
Maximum Recommended Operating Temperature	400°C (Inert Gases)	400°C (Inert Gases)	400°C (Inert Gases)
Changeout Interval	System Dependent	System Dependent	System Dependent


High Purity Products