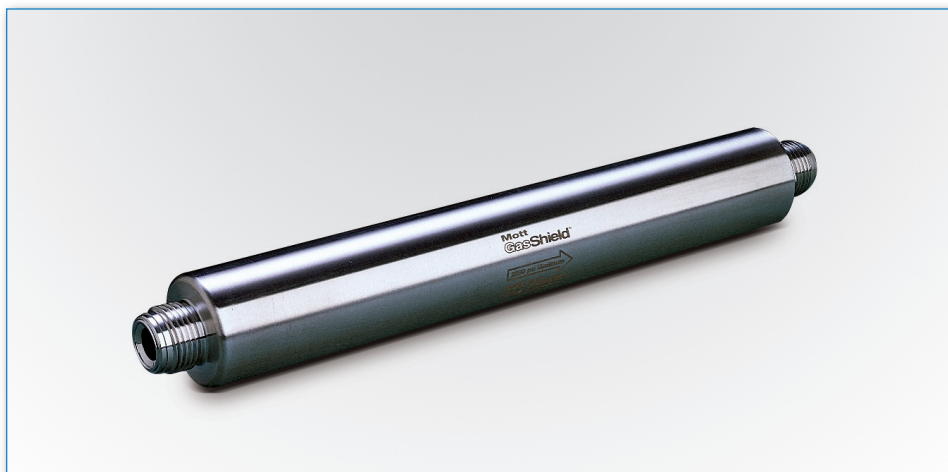


## > GasShield® PENTA® Hiflow Gas Filters



GasShield® PENTA® filters offer the high flow and low  $\Delta P$  of *Teflon*®, but with a 100% nickel filter element. This design reduces filter element surface area, resulting in lower levels of moisture retention and faster purge time.

The PENTA® Hiflow filters offer the highest flow per footprint of any metal filter in the industry.

### Consistent operation under challenging conditions

- **9 log reduction value** – Greater than 99.9999999% removal of all particles down to 0.003  $\mu\text{m}$ ; confirmed at the most penetrating particle size of 0.08  $\mu\text{m}$ .
- **Unsurpassed strength** – Mott porous metal gives GasShield filters the strength to withstand temperatures to 450°C, and pressures to 3750 psig – offering resistance to harsh conditions, and the greatest peace of mind against disaster.
- **No media migration** – Mott media is held together by solid-state diffusion bonding, a type of molecular adhesion that prevents particles from breaking loose from the media and entering the gas stream.

### Rugged, high-quality construction

- 5 Ra surface finish on all internal hardware components.
- Our nickel media is sintered with no binders or slurry so “the only material of construction of the media is the media.”
- Filter element is designed to provide required flow at minimal pressure drop while minimizing surface area to provide virtually zero out-gassing.
- All-welded construction eliminates out-gassing which accompanies polymeric filters.
- Housings of 316L VAR/electropolished stainless steel.

### Clean start-to-finish packaging

- Preconditioned with clean dry nitrogen.
- Class 100 clean room manufactured and packaged. Multiple bags to ensure dryness.
- Packaging is designed to maintain the purity of the filter prior to installation.

*Teflon*® is a registered trademark of E. I. DuPont Nemours & Co., Inc.

> high purity products

> mottcorp.com

# GasShield® PENTA® Hiflow Gas Filters

## Ordering Information

Mott PENTA® Hiflow filters are available in the following standard configurations. Other configurations may be available on special order. Consult the factory.

Part Description	Computer Part Number (CPN*)	Maximum Rated Flow (slpm)	Filter Element Material	Standard Inlet/Outlet Connection**	Maximum Inlet Pressure (psig/bar) at 20°C	Maximum Differential Pressure (psig/bar)	Overall Length (Inches/mm)	Outside Diameter (Inches/mm)
GSP315H1FF11	6812035	80	Nickel	1/4" Male Face Seal	2500/172.4	500/34.5	3.31/84	1.50/38.10
GSP315H3FF11	6812037	120	Nickel	1/4" Male Face Seal	2500/172.4	500/34.5	3.31/84	1.50/38.10
GSP515H1FF11	6812038	150	Nickel	1/4" Male Face Seal	2500/172.4	500/34.5	5.0/127	1.50/38.10
GSP515H3FF11	6812039	250	Nickel	1/4" Male Face Seal	2500/172.4	500/34.5	5.0/127	1.50/38.10
GSP11215H1FF33	6812042	400	Nickel	1/2" Male Face Seal	2500/172.4	500/34.5	11.2/284.5	1.50/38.10
GSP11215H3FF33	6812043	600	Nickel	1/2" Male Face Seal	2500/172.4	500/34.5	11.2/284.5	1.50/38.10

\* Order by CPN.

\*\* Optional end connections are available on request.

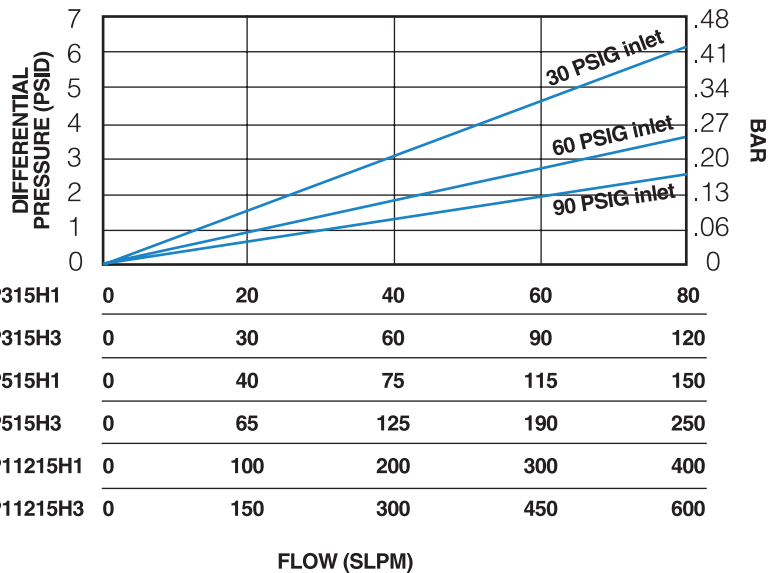
## Features

- Next generation in nickel media.
- More open structure with higher mechanical strength.
- Flow rates up to 600 slpm @ 9 LRV.
- Small diameters simplify panel designs.

## Limited Warranty

Mott Corporation ("Mott") warrants its GasShield® filter will meet the specified retention and media integrity standards for a period of five years from the date of purchase, providing the filter is properly installed and used in accordance with the specified flow, pressure, temperature, and chemical compatibility as published by Mott. Mott will replace or grant a purchase price refund for any GasShield filter which proves defective under the terms of this Limited Warranty. No other remedies apply. Mott disclaims all other warranties, either expressed or implied, including any warranty of merchantability or fitness for a particular purpose. Mott shall have no liability for consequential, incidental, special or punitive damages, lost profits or savings, or damages from lost production or damage to other materials.

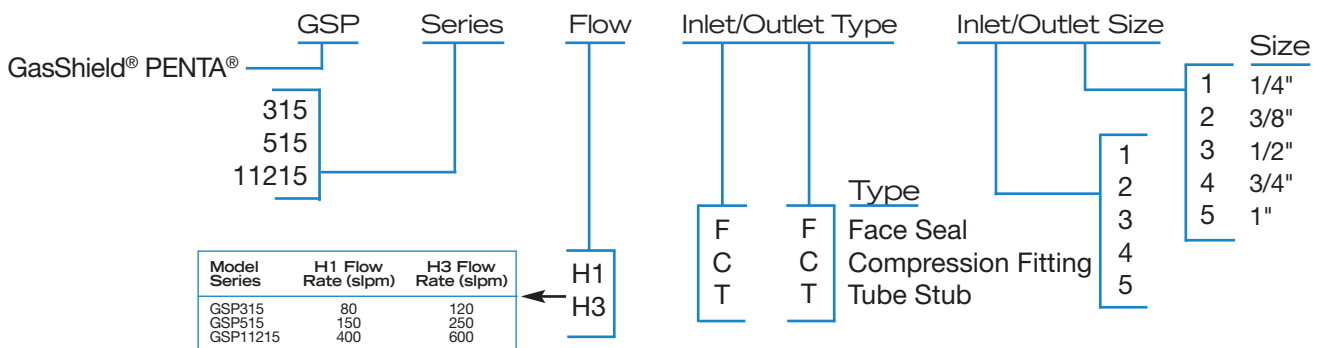
## Typical Reference of Differential Pressure vs. Flow



<b>GSP315H1</b>	0	20	40	60	80
<b>GSP315H3</b>	0	30	60	90	120
<b>GSP515H1</b>	0	40	75	115	150
<b>GSP515H3</b>	0	65	125	190	250
<b>GSP11215H1</b>	0	100	200	300	400
<b>GSP11215H3</b>	0	150	300	450	600

Note: For detailed POU filter spec sheets, visit [www.mottcorp.com](http://www.mottcorp.com), click on Resource Center, look under Design Tools, and click on High Purity Product Spec Sheets.

## Mott Part Number Configuration



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