

## > IGS Surface Mount Filters W-Seal Configuration



High-precision, high-flow,  
all-metal filtration engineered  
specifically for Integrated  
Gas System (IGS) assemblies

Mott High Purity – who for years has provided the highest quality porous metal filters and flow restrictors for semiconductor manufacturing – also offers these same products in IGS-compatible designs. So now you can combine the ease of installation, stick component accessibility, ease of maintenance, reduced assembly time and compatibility between components that are typical of IGS, with the selection and performance benefits offered exclusively by Mott.

Mott's mission is to provide customers with unique filtration and flow control solutions using materials specifically designed for demanding operating conditions, 9 LRV efficiency and exacting flow control. Our full line of IGS filters and flow restrictor products is designed for compatibility with the gas system interfaces currently being specified on process tools, gas cabinets, and valve manifold box installations. As the challenges of the 300mm conversion have emerged, our technology has provided the necessary solutions.

Features	Benefits
All-Metal Capabilities	Withstands high temperatures and pressures
All-Welded Construction	No mechanical seals
Standard Footprint	Easy retrofit
Mott Porous Media	Reliable 9 LRV filtration down to 0.003µm
Standard IGS Interface	Many configuration options
Compact IGS Design	Consumes less space than standard In-line designs
Design Flexibility	Wide range of materials, configurations and flow rates
Modular IGS Design	Ease of installation, reduced part variations and inventories

- **High flow rates** – Mott porous metal media has unique properties that allow for the production of a wider range of flow, material and configuration options than our competitors. This flexibility in geometry provides filters with flow ratings of up to 100 slpm while meeting the envelope requirements of the industry.
- **Wide choice of materials** – Mott IGS filters are constructed of 316L SS, Hastelloy® C-22 or PENTA® Nickel, the most comprehensive offering in the industry. This translates to chemical compatibility with virtually any gas used in semiconductor production today, without elastomers or other non-metallic materials which could flex or shed particles.
- **Complete range of product configurations** – Mott's standard IGS modular mount offerings include the 1.125" configuration with C-Seal or W-Seal, as well as the 1.5" version with C-Seal or W-Seal. We have the design you need.

### 1.125" Filter Design

Flow passages equivalent to 1/4" tubing.  
Standard flow rates up to 50 slpm. Compatible with most popular compact modular substrate systems.

### 1.5" Filter Design

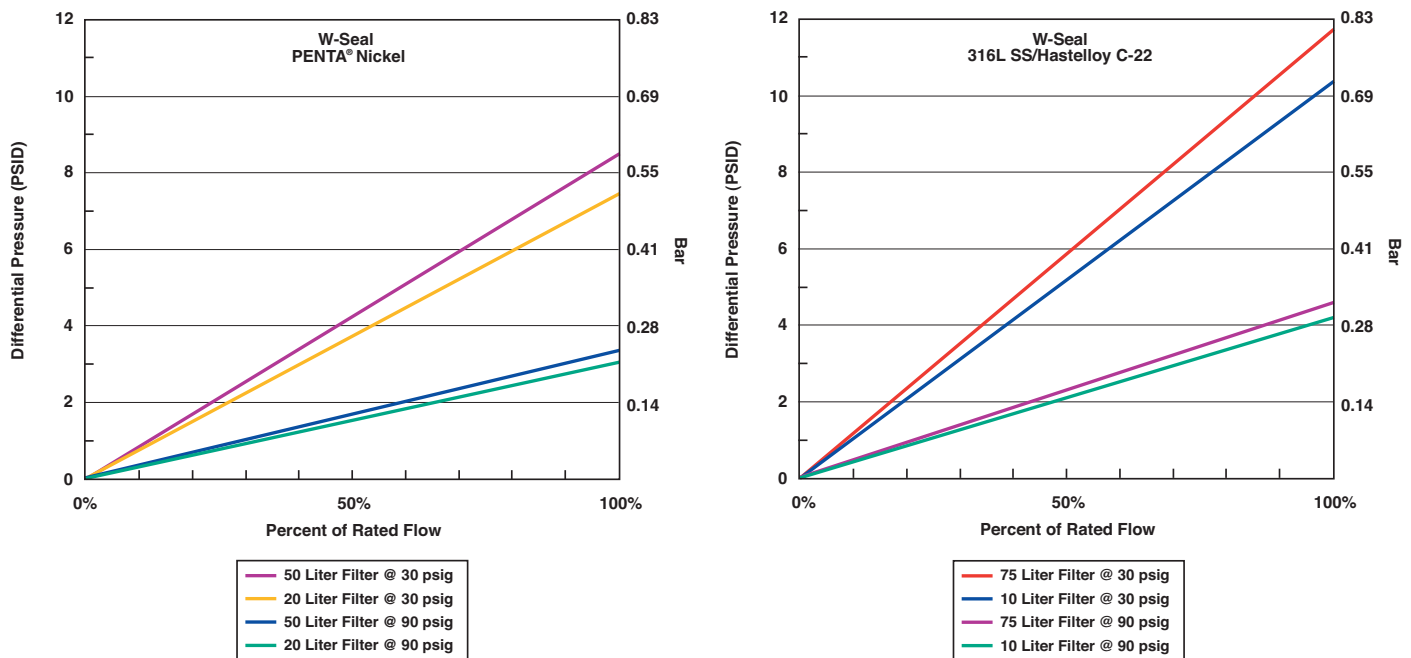
Flow passages equivalent to 1/4" and 3/8" tubing.  
Standard flow rates up to 100 slpm (higher flows up to 200 slpm – consult factory). Compatible with most popular compact modular substrate systems.

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# Typical Flow Curves for Mott 1.125" and 1.5" IGS Filters.

## The distinct advantages of using Mott products

Typical Differential Pressure vs. Flow



Part Description for Standard Configurations	Computer Part Number (CPN*)	Maximum Rated Flow (slpm)	Overall Height (inches)	Filter Element Material	Housing Material	Seal Configuration
<b>1.125" Filters</b>						
GSMM-55-020-12	6813075	20	1.7	Nickel	316L SS	W-Seal
GSMM-55-030-12	6813076	30	2.6	Nickel	316L SS	W-Seal
GSMM-55-050-12	6813077	50	4.2	Nickel	316L SS	W-Seal
GSMM-55-010-11	6813078	10	2.6	316L SS	316L SS	W-Seal
GSMM-55-030-11	6813079	30	4.0	316L SS	316L SS	W-Seal
GSMM-55-050-11	6813082	50	4.0	316L SS	316L SS	W-Seal
GSMM-55-010-33	6813080	10	2.5	Hastelloy C-22	Hastelloy C-22	W-Seal
GSMM-55-030-33	6813081	30	5.0	Hastelloy C-22	Hastelloy C-22	W-Seal
<b>1.5" Filters</b>						
GSMM-50-010-12	6813036	10	1.3	Nickel	316L SS	W-Seal
GSMM-50-050-12	6813037	50	2.6	Nickel	316L SS	W-Seal
GSMM-50-100-12	6813038	100	4.5	Nickel	316L SS	W-Seal
GSMM-50-010-11	6813028	10	2.2	316L SS	316L SS	W-Seal
GSMM-50-020-11	6813034	20	3.2	316L SS	316L SS	W-Seal
GSMM-50-030-11	6813041	30	4.1	316L SS	316L SS	W-Seal
GSMM-50-075-11	6813035	75	5.8	316L SS	316L SS	W-Seal
GSMM-50-010-33	6813033	10	2.2	Hastelloy C-22	Hastelloy C-22	W-Seal
GSMM-50-020-33	6813029	20	3.2	Hastelloy C-22	Hastelloy C-22	W-Seal
GSMM-50-075-33	6813031	75	6.1	Hastelloy C-22	Hastelloy C-22	W-Seal

\* Order by CPN.

**mott corporation**



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