GASSHIELD® SURFACE MOUNTS
0.0015 µm FILTRATION EFFICIENCY

mott
MISSION CRITICAL PRECISION

GSMM75 - C-SEAL SURFACE MOUNT FILTERS

DESCRIPTION

Mott's GasShield® Surface Mount Filters provide industry leading 0.0015 µm filtration for integrated gas systems used on board semiconductor OEM tools. Mott GasShield® products are compliant with SEMI F86-0304 specifications for dimensions of two port components for 1.5' four fastener surface mount gas distribution systems with the C-seal configuration.

APPLICATIONS

For use with C-seal, 1.5" surface mount modular gas delivery systems. All 316L SS construction provides ultra high purity filtration down to 0.0015 µm. Compatible with all inert gases and most specialty gases.

OPERATING CONDITIONS

» Maximum Operating Pressure: 1800 psig (124.1 barg)
» Maximum Operating Temperature for Inert Gas: 460°C
» Maximum Differential Pressure: 500 psid (34.4 bar)

MATERIALS

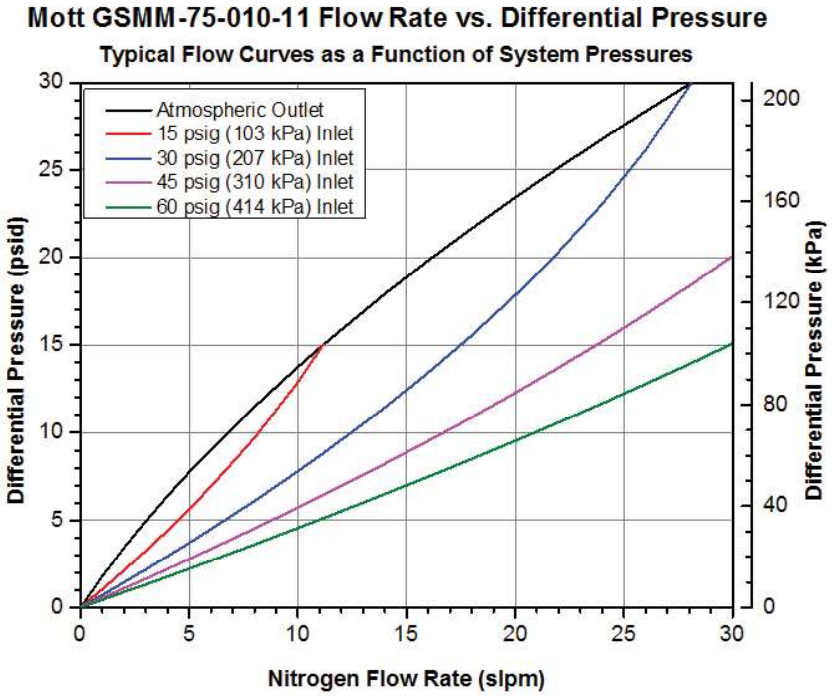
» Hardware: 316L SS, Alloy 22*
» Filter Medium: Penta® Nickel, 316L SS, Alloy 22*
» Wetted Hardware Surface Finish: 5 Ra, Electro-polished

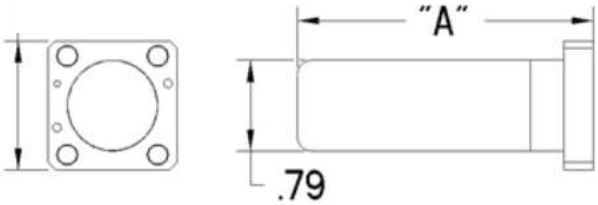
SPECIFICATIONS

Particle Removal Size:	≥ 0.0015 µm
Filter Efficiency (Log Reduction Value):	≥ 9 LRV (99.9999999% reduction in particles). Confirmed at the most penetrating particle size of 0.08 µm per SEMI F38-0699 test method
Helium Leak Rating:	1 x 10^{-9} atm cc/sec
Moisture Contribution:	<10 ppb after 1 hour at low-flow ambient purge per SEMI F27 test method
Total Hydrocarbons:	Below detectable limits per SEMASPEC 90120396B test method
Particle Shedding:	Zero particle contribution above background (<1 particle/ft³) per SEMI F43-0308 test method

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.

FLOW DATA





ORDERING INFORMATION

Part Description	Part Number (CPN)	Fitting Type	Filter Material	Housing Material	Filter Design	Flow Rating (SLPM)	Overall Height (Inches)
GSMM-75-020-12	6813032	C-Seal	Nickel	316L SS	1.125"	20	1.6
GSMM-75-030-12	6813042	C-Seal	Nickel	316L SS	1.125"	30	2.4
GSMM-75-050-12	6813053	C-Seal	Nickel	316L SS	1.125"	50	4.0
GSMM-75-010-11	6813054	C-Seal	316L SS	316L SS	1.125"	10	2.4
GSMM-75-030-11	6813055	C-Seal	316L SS	316L SS	1.125"	30	4.0
GSMM-75-010-33	6813056	C-Seal	Alloy 22*	Alloy 22*	1.125"	10	2.4
GSMM-75-030-33	6813057	C-Seal	Alloy 22*	Alloy 22*	1.125"	30	4.9
GSMM-60-010-12	6813018	C-Seal	Nickel	316L SS	1.500"	10	1.3
GSMM-60-050-12	6813009	C-Seal	Nickel	316L SS	1.500"	50	2.6
GSMM-60-100-12	6813004	C-Seal	Nickel	316L SS	1.500"	100	4.5
GSMM-60-010-11	6813011	C-Seal	316L SS	316L SS	1.500"	10	2.2
GSMM-60-020-11	6813023	C-Seal	316L SS	316L SS	1.500"	20	3.2
GSMM-60-075-11	6813005	C-Seal	316L SS	316L SS	1.500"	75	5.8
GSMM-60-010-33	6813056	C-Seal	Alloy 22*	Alloy 22*	1.500"	10	2.4
GSMM-60-020-33	6813039	C-Seal	Alloy 22*	Alloy 22*	1.500"	20	3.2
GSMM-60-075-33	6813040	C-Seal	Alloy 22*	Alloy 22*	1.500"	75	6.1

*Alloy 22 or UNS N06022 is a nickel-chromium-molybdenum super-alloy commonly referred to as Hastelloy® C-22®.