## INSTRUCTION AND SPECIFICATION GUIDE <br> for Mott GasShield ${ }^{\circledR}$ <br> Point-of-Use Filters



Mott GasShield ${ }^{\circledR}$ Filter
Made with NanoMetal ${ }^{\circledR}$

## Specifications

| Retention: | Greater than 99.99999999\% removal of all particles to $0.0015 \mu \mathrm{~m}$; confirmed at the most penetrating particle size of $0.08 \mu \mathrm{~m}$. |
| :---: | :---: |
| Flow Rate: | From 1 to 600 SLPM |
| Hardware Materials*: | 316L Stainless Steel - 5Ra Electropolished housings available to 3750 @ PSI $20^{\circ} \mathrm{C}$. Hastelloy ${ }^{\circledR}$ C-22-5Ra housings available to $3750 \mathrm{PSI} @ 20^{\circ} \mathrm{C}$ |
| Element Materials: | 316L Stainless Steel, Nickel or Hastelloy ${ }^{\circledR}$ C-22 |


| Maximum Differential Pressure up to: | Forward Flow: 1000 PSID (68.95 bar) @ $20^{\circ} \mathrm{C}$ Reversal Flow: 1000 PSID (68.95 bar) @ $20^{\circ} \mathrm{C}$ |
| :---: | :---: |
| Maximum Recommended |  |
| Operating Temperature: | $450^{\circ} \mathrm{C}$ Inert gases |
| Surface Finish: | Interior: 5 Ra Microinch Exterior: Matte |
| Leak Rating: | Helium leak tested to a maximum of $1 \times 10^{-9} \mathrm{~atm} \mathrm{cc} / \mathrm{sec}$. |
| Recommended |  |
| Changeout Interval: | 5 years in semiconductor grade gases |

*Consult technical service for standard fittings and availability.
Availability: Mott GasShield filters can be purchased through our worldwide network of distributors. To find out the name and contact information for a distributor in your area, please contact us or visit our website at www.mottcorp.com.

## Recommended Installation and Replacement Instructions

## WARNING:

It is the installer's responsibility to comply with appropriate safety procedures for working with gases under pressure and for toxic gases. If installer is unsure of proper procedures, appropriate authority must be consulted prior to beginning installation and/or removal of a filter.

## CAUTION:

GasShield Filters are preconditioned with clean, dry nitrogen. Extreme care should be taken to minimize the time which elapses between the removal of the packaging and the installation of the filter to minimize contamination of the filter.

1. Purge the system of any process gas.
2. Close valves upstream and downstream of the filter.
3. If vent line is installed, open the vent valve to depressurize the filter. If there is no vent line, SLOWLY disassemble downstream connection to depressurize the filter.
4. Disassemble upstream connection and remove the used filter.
5. When applicable, inspect all sealing surfaces and clean or replace as needed. Always install new gaskets**.
6. Remove filter from the outer bag. Do not remove internal bag until ready for immediate installation (see CAUTION above). Make certain filter will be installed so that flow direction agrees with the arrow on the housing.
7. Remove inner bag and immediately install the filter while being careful not to damage the connection sealing surfaces.
8. Close vent line valve if installed.
9. Helium leak test connections for seal integrity.
10. System is now ready to be purged.
${ }^{* *}$ Use Nickel gaskets on all face seal fittings. Stainless steel gaskets are not recommended.

Mott's objective is to provide you with the best possible GasShield Filters. Your comments about Mott GasShield filters and any suggestions for improvement are welcome. Call, write, or fax us at the address shown below.


[^0]GasShield and NanoMetal are registered trademarks of Mott Metallurgical Corp.
Hastelloy is a registered trademark of Haynes Intl. Inc.
US Patent Number 5,114,447.


[^0]:    Limited Warranty:
    Mott Corporation ("Mott") warrants its GasShield® gas 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 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.

