



IMPACT® ASYMMETRIC DISPOSABLE FILTERS

Rapid changeout UPE membrane filters with 3 nm, 5 nm and 10 nm retention ratings for point-of-use photochemical filtration, including photoresists, solvents and aqueous chemistries



for point-of-use photochemical filtration

Overview

Less Handling, More Cleanliness and Safety

The Impact® and Impact Mini asymmetric filters quickly connect and seal with the Impact manifold and IntelliGen® dispense systems to provide rapid filter changeout while eliminating the handling of the filter element. This unique design reduces potential exposure to hazardous chemicals during installation and disposal and promotes a safer working environment.

Superior Design

- Compact design provides easy installation
- Optimized surface area and hold up volume for minimal wasted chemical during priming and disposal
- Impact Mini is designed for use with IntelliGen Mini dispense systems

Superior Manufacturing

- Manufactured in a world-class, ISO 9001 Quality Systems Standard facility
- Manufactured, tested and packaged in a cleanroom to ensure product cleanliness

Superior Performance and Retention

- Unique and patented features minimize on-wafer defects
- *New* 3 nm retention for critical applications and 10 nm PCM for aqueous chemistries like TARC and DI water rinse chemistries
- Newly introduced asymmetric membrane with tighter retention and lower pressure drop performance

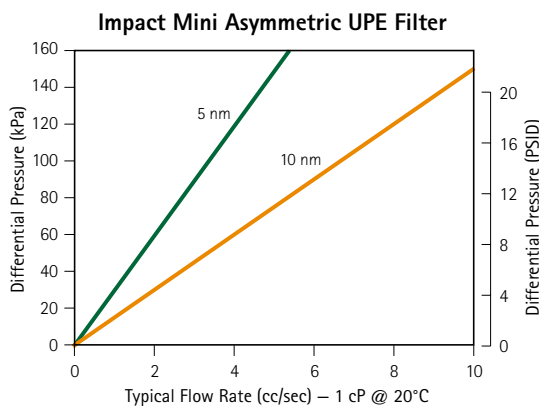
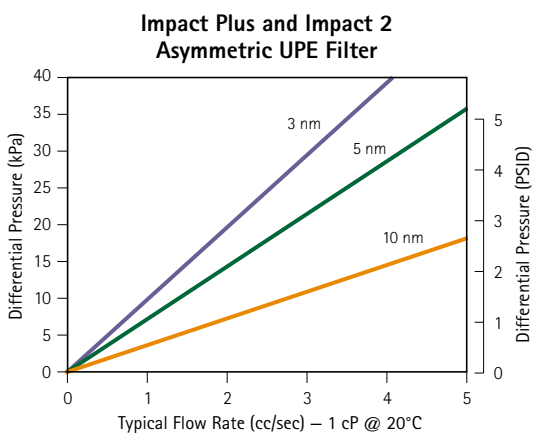
| Features | Benefits |
|---|--|
| Available in 3 nm, 5 nm and 10 nm retention ratings | 3 nm, 5 nm and 10 nm rated filters offer proven membrane technology that reduces microbridge defects in advanced linewidth processes. |
| Minimal chemical exposure, rapid connection design | Allows quick filter installation and minimizes downtime while limiting the handling of hazardous chemicals during the installation and disposal processes, thereby promoting a more healthy workplace. |
| Low hold up volume | <55 ccs for Impact 2 and <15 ccs for Impact Mini; design minimizes chemical waste during filter startup and disposal. |
| Proprietary cleaning technology | Internally developed proprietary cleaning technology ensures low metals and organic extractables, eliminating another variable to the customer's process. |
| Hydrophilic membrane reduces on-wafer defects | Surface spontaneously wets in water, reducing nucleation sites for microbubble formation by eliminating hydrophobic spots on the membrane. |
| Provides long-term stability | PCM membrane is stable in acids (TARC) and will withstand long-term exposure with no degradation. |

Impact Asymmetric Disposable Filters

Specifications

| | | |
|-------------------------------|---|--|
| Material: | Membrane | Asymmetric ultra-high molecular weight polyethylene (UHMWPE) |
| | Supports (upstream, downstream and mold) | High-density polyethylene (HDPE) Kalrez® perfluoroelastomer |
| Manifold fittings: | 6.35 mm Flowell™ 60 series | |
| | 5 mm/3 mm Flowell 60 series | |
| | 6 mm/4 mm Flowell 60 series | |
| | 4 mm/3 mm Flowell 60 series | |
| | 6.35 mm Super Type Pillar® | |
| Maximum operating conditions: | Maximum inlet pressure | 0.34 MPa (3.4 bar, 50 PSI) @ 25°C (77°F) |
| | Maximum forward/reverse differential pressure | 0.27 MPa (2.7 bar, 40 PSI) @ 25°C (77°F) |
| | Maximum operating temperature | 40°C (104°F) |
| Membrane area: | Impact Plus and Impact 2 | 1200 cm ² |
| | Impact Mini | 250 cm ² |
| Hold up volume: | Impact Plus and Impact 2 | <55 cc |
| | Impact Mini | <15 cc |
| Compatibility: | PGMEA, PGME, NMP, ethyl lactate, MMP, and cyclohexanone Not recommended for use with photochemicals containing aromatic hydrocarbons | |
| Wettability: | Spontaneously wets in butyl acetate, PGMEA, PGME, ethyl lactate, MMP, ECA, NMP and other photochemical solvents | |

Performance Data

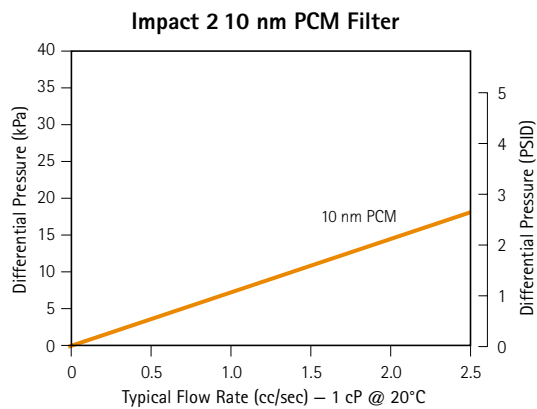


Impact 2 Asymmetric PCM Disposable Filter

Specifications

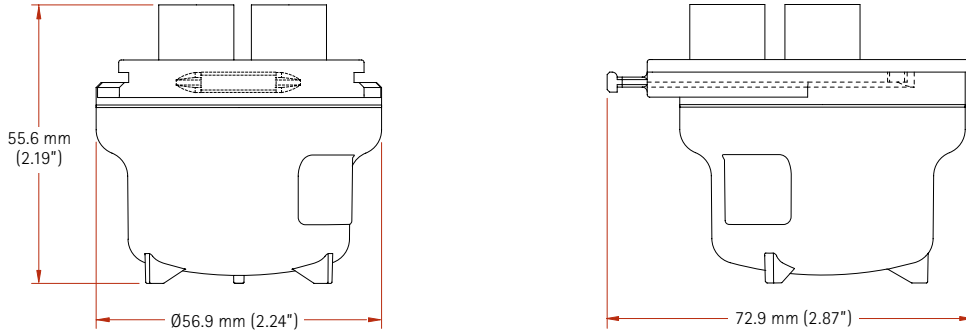
| | | |
|-------------------------------|---|--|
| Material: | Membrane | Asymmetric hydrophilic ultra-high molecular weight polyethylene (UHMWPE) |
| | Supports (upstream, downstream and mold) | High-density polyethylene (HDPE) Kalrez perfluoroelastomer |
| Manifold fittings: | 6.35 mm Flowell 60 series | |
| | 5 mm/3 mm Flowell 60 series | |
| | 6 mm/4 mm Flowell 60 series | |
| | 4 mm/3 mm Flowell 60 series | |
| | 6.35 mm Super Type Pillar | |
| Maximum operating conditions: | Maximum inlet pressure | 0.34 MPa (3.4 bar, 50 PSI) @ 25°C (77°F) |
| | Maximum forward/reverse differential pressure | 0.27 MPa (2.7 bar, 40 PSI) @ 25°C (77°F) |
| | Maximum operating temperature | 40°C (104°F) |
| Membrane area: | Impact 2 | 1350 cm ² |
| Hold up volume: | Impact 2 | <55 cc |
| Compatibility: | PGMEA, PGME, NMP, ethyl lactate, MMP, and cyclohexanone Not recommended for use with photochemicals containing aromatic hydrocarbons | |
| Wettability: | Please add water | |

Performance Data

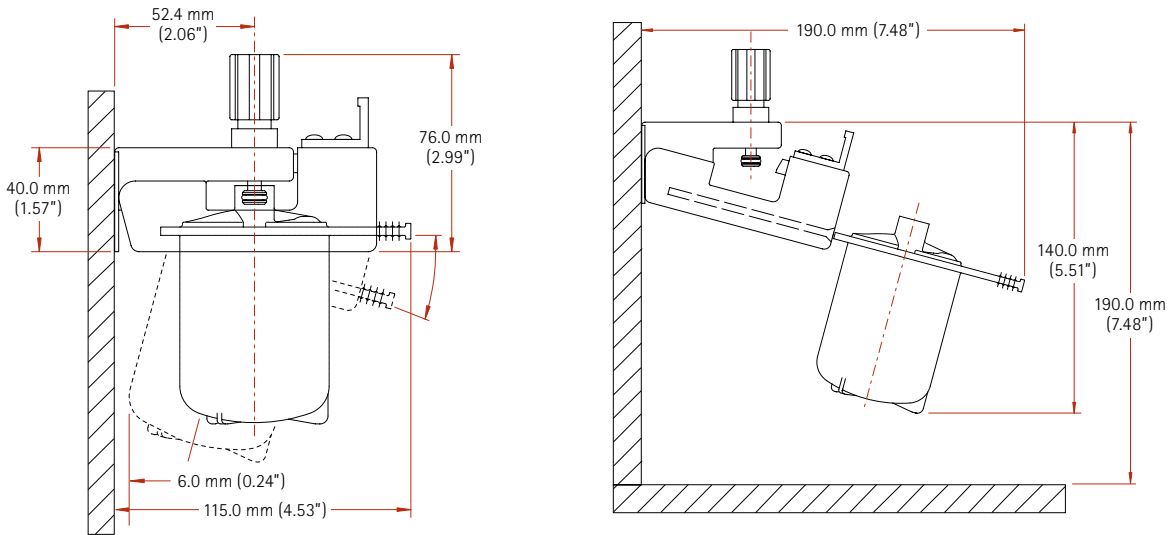


Dimensions

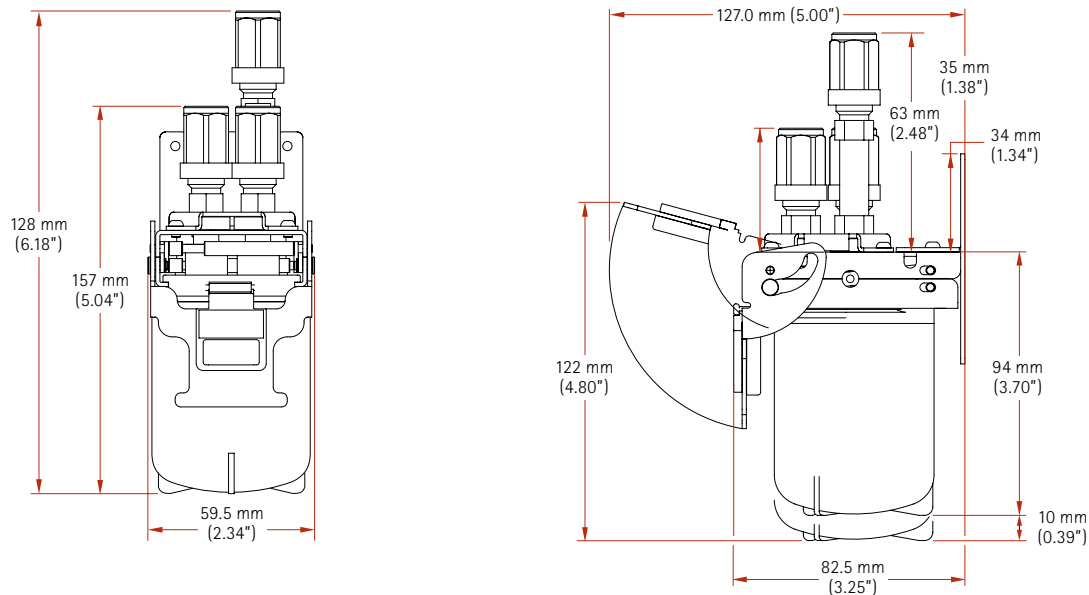
Impact Mini Disposable Filters



Impact Plus Disposable Filters



Impact 2 Disposable Filters





In combination with IntelliGen Mini, the Impact Mini provides the best dispense and filter combination on the market.

For More Information

Please call your Regional Customer Service Center today to learn what Entegris can do for you. Visit www.entegris.com and select the "Customer Service" link for the center nearest you.

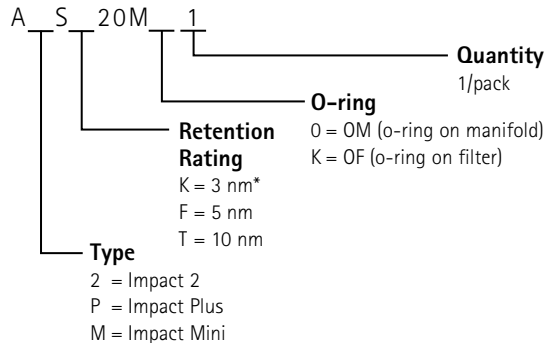
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Ordering Information

Impact Asymmetric Disposable Filters

Part Number

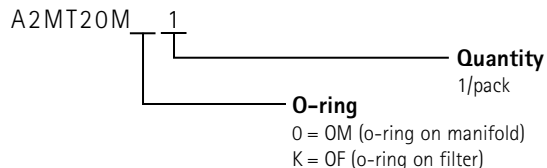


Note: Compatible with Impact manifolds.

**3 nm available only in Impact 2.*

Impact 2 Asymmetric PCM Disposable Filters

Part Number



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