

Impact[®] 8G Filter

Ultraclean, point-of-dispense filtration of photoresist and photochemical solvents

Entegris' extensive process knowledge and product innovation focus enabled the development of Impact[®] 8G series photochemical filters to address advanced photolithography filtration challenges. Building on the proven performance of Impact 8G series filters, we have expanded the portfolio to include a 1 nm filter with Duo membrane for use in the most critical photoresist and photochemical applications.

The Impact 8G Duo 1 nm filter optimizes high retention and high flow to reduce on-wafer defectivity and maximize tool uptime. Utilizing our Oktolox[™] membrane surface modification technology, the Duo 1 nm filter media uses best-in-class retention with very low pressure drop and is suited for use with acidic chemistries such as Si-ARC. Customers have already observed significant on-wafer yield improvement with our Duo 1 nm technology.

Impact[®] 8G series filters deliver best-in-class, point-of-dispense photochemical filtration with superior flow rate performance and reduced microbubble formation capabilities in sub-28 nm technology nodes. To minimize the risk of filter contamination, Impact 8G filters utilize an enhanced ultra-clean technology to reduce particle shedding, microbubble entrapment and metal and organic extractables. In addition, the unique core-fill device structure increases flow rate performance, shortens filter startup times, reduces on-wafer defects, and enhances filter lifetime.

APPLICATIONS

- EUV, ArF-i/D, KrF photoresists
- SOG, SOC
- Emerging chemistries
- Solvents



Tailored filter media enables technology customization.

FEATURES & BENEFITS

Tailored filter media for advanced photochemicals	Enables technology customization to meet all aspects of individual customer needs like our new, Duo 1 nm membrane with best-in-class retention and very low pressure drop
Enhanced cleaning process	Minimal organic and metal extractables in photochemical solvents
	Cleaner filters with less particle shedding
Unique core-fill flowpath design	Faster filter startups maximizes tool up time and minimizes chemical and time waste
	Better flow rate performance than comparable filters
	Limited microbubble formation upstream and downstream
	Reduces overall filter priming time leading to reduced filter startup costs

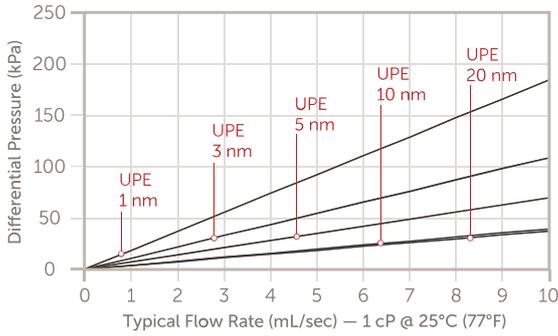
SPECIFICATIONS

Materials	Membrane	8G, 8G-L	Azora™, UPE, Nylon, Duo	
		8G UCP, 8G-L UCP	UPE, Nylon, Duo (UPE/Nylon)	
	Supports, core, shell		HDPE	
	O-ring		Perfluoroelastomer (OF)	
Surface area	8G	Azora G1	1200 cm ²	(1.29 ft ²)
		Azora G2	1500 cm ²	(1.61 ft ²)
	8G, 8G UCP	UPE	1200 cm ²	(1.29 ft ²)
	8G, 8G UCP	Nylon	800 cm ²	(0.86 ft ²)
	8G, 8G UCP	Duo	800 cm ²	(0.86 ft ²)
	8G-L	Azora G2	3000 cm ²	(3.23 ft ²)
	8G-L, 8G-L UCP	UPE	2400 cm ²	(2.58 ft ²)
	8G-L	Nylon	1600 cm ²	(1.72 ft ²)
Retention rating	Azora	Standard: None	UC: None	UCZ: G1, G2
	UPE	Standard: 3, 5, 10, 20 nm, Oktalex G1	UC: None	UCP: 1, 3, 5, 10 nm
	Nylon	Standard: 10, 20 nm	UC: 10 nm	UCP: 5, 20 nm
	Duo	Standard: 5, 10 nm	UC: None	UCP: 1, 3, 5, 10 nm
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, 39 psi) @ 25°C (77°F)	
	Maximum operating temperature:		40°C (104°F)	
Hold up volume	Impact 8G, 8G UCP		55 cc	
	Impact 8G-L, 8G-L UCP		110 cc	
Compatibility	Visit our Chemical Compatibility web page			
Wettability	Spontaneously wets in PGMEA, PGME, and other photochemical solvents.			
Fittings	Impact 2 filter manifold			

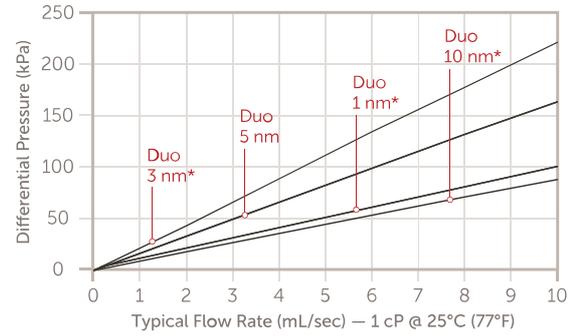
Entegris recommends that customers change filters at least annually to ensure optimal filtration performance. Routine annual changeout will also reduce the potential of chemical leakage that can result from excessive usage. Our standard warranty period is 1 year (from Entegris ship date).

PERFORMANCE DATA

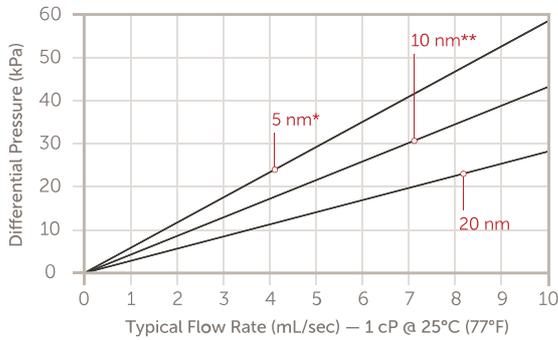
Impact 8G UPE/UPE UCP



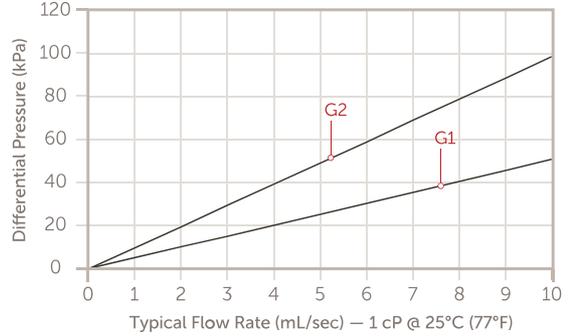
Impact 8G Duo/Duo UCP



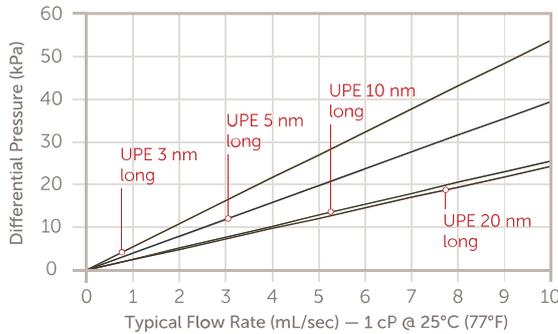
Impact 8G Nylon/Nylon UCP



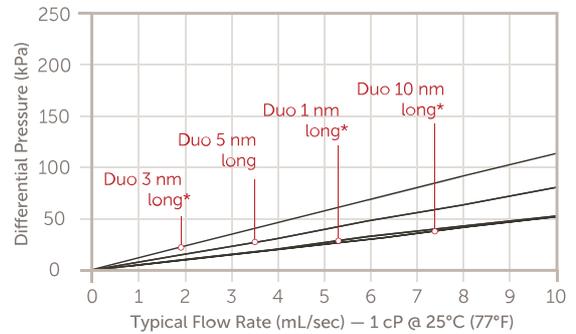
Impact 8G Azora UCZ



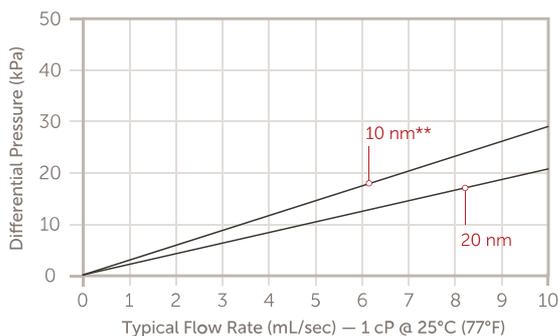
Impact 8G-L UPE/UPE UCP



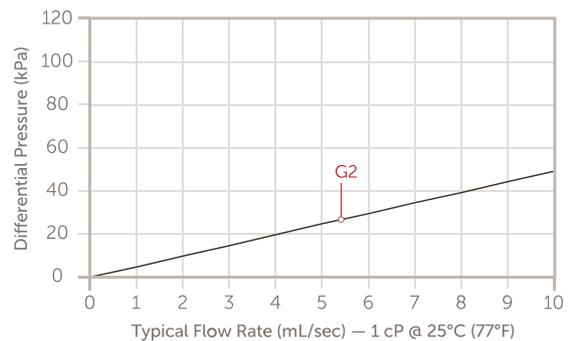
Impact 8G-L Duo/Duo UCP



Impact 8G-L Nylon/Nylon UCP



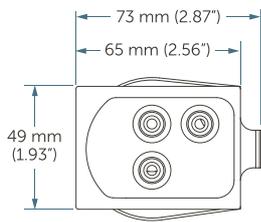
Impact 8G-L Azora UCZ



DIMENSIONS

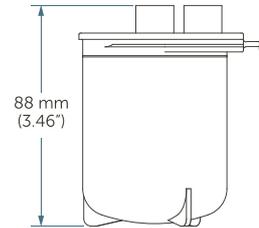
Impact 8G/8G-L Filter

Top View



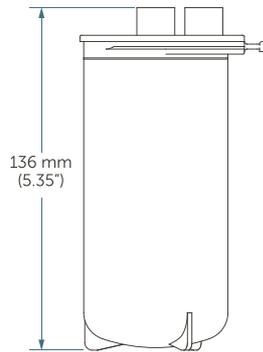
Impact 8G Filter

Side View



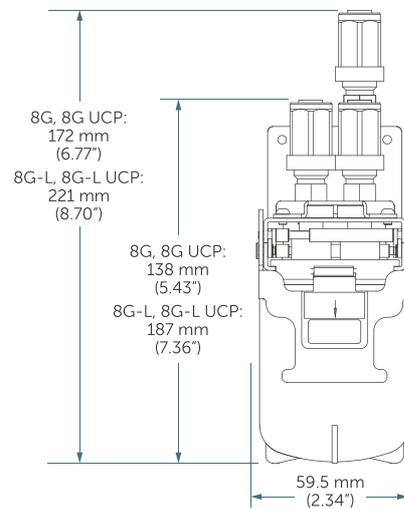
Impact 8G-L Filter

Side View



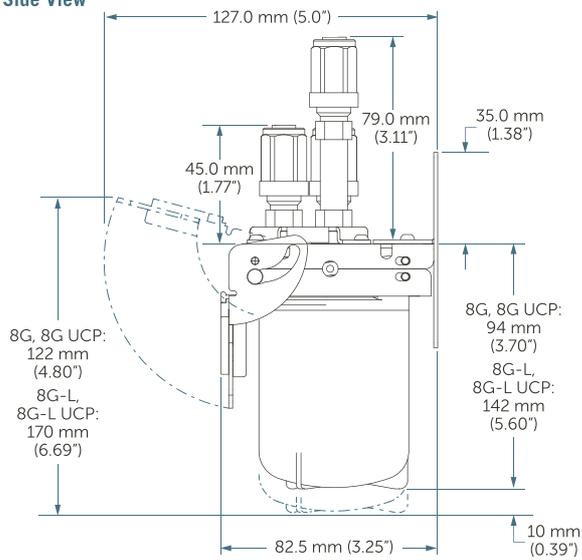
Impact 8G Filter with Impact 2 Manifold – 6.35 mm Flowell™ 60 Type

Front View



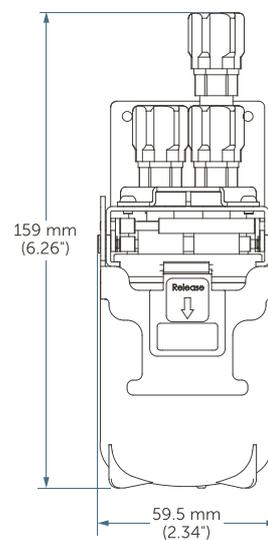
Impact 8G Filter with Impact 2 Manifold – 6.35 mm Flowell™ 60 Type

Side View



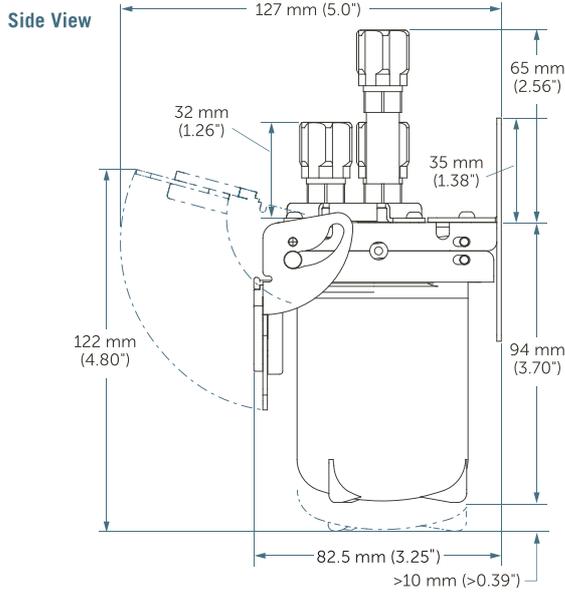
Impact 8G Filter with Manifold – Flowell 80 Type

Front View

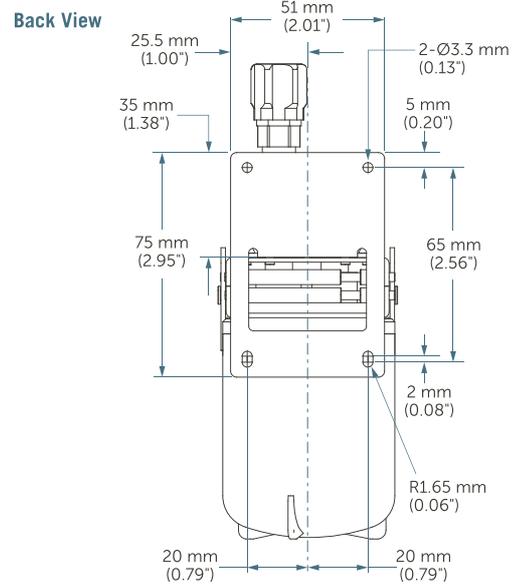


DIMENSIONS

Impact 8G Filter with Manifold –
Flowell 80 Type

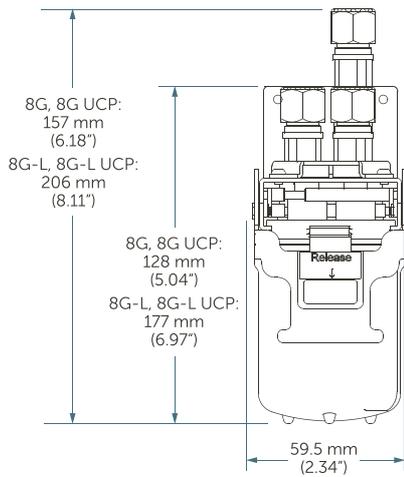


Impact 8G Filter with Manifold –
Flowell 80 Type



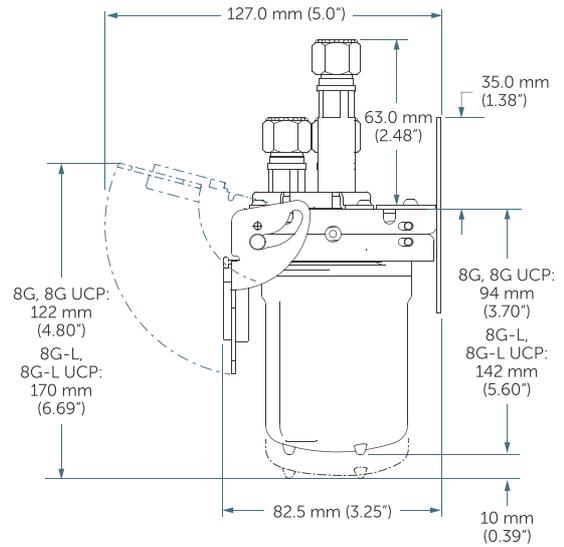
Impact 8G Filter with Impact 2 Manifold –
6.35 mm Super Type Pillar®

Front View



Impact 8G Filter with Impact 2 Manifold –
6.35 mm Super Type Pillar®

Side View



ORDERING INFORMATION

PART NUMBER	FILTER CLEANING	MEMBRANE/MEDIA	FORM FACTOR	RETENTION RATING	PREWET
A2AXC0MK1	Standard	UPE	Short Capsule	20 nm	No
A2AXCLMK1	Standard	UPE	Long Capsule	20 nm	No
A2CEC0MK1UCP	Ultraclean Plus (UCP)	UPE	Short Capsule	1 nm	No
A2CFC0MK1UCP	Ultraclean Plus (UCP)	UPE	Short Capsule	5 nm	No

ORDERING INFORMATION

PART NUMBER	FILTER CLEANING	MEMBRANE/MEDIA	FORM FACTOR	RETENTION RATING	PREWET
A2CFCLMK1UCP	Ultraclean Plus (UCP)	UPE	Long Capsule	5 nm	No
A2CKC0MK1UCP	Ultraclean Plus (UCP)	UPE	Short Capsule	3 nm	No
A2CKCLMK1UCP	Ultraclean Plus (UCP)	UPE	Long Capsule	3 nm	No
A2CTC0MK1UCP	Ultraclean Plus (UCP)	UPE	Short Capsule	10 nm	No
A2CTCLMK1UCP	Ultraclean Plus (UCP)	UPE	Long Capsule	10 nm	No
A2DE100K1UCP	Ultraclean Plus (UCP)	DUO	Short Capsule	1 nm	No
A2DE1L0K1UCP	Ultraclean Plus (UCP)	DUO	Long Capsule	1 nm	No
A2DFC00K1	Standard	DUO	Short Capsule	5 nm	No
A2DFC00K1UCP	Ultraclean Plus (UCP)	DUO	Short Capsule	5 nm	No
A2DFCL0K1	Standard	DUO	Long Capsule	5 nm	No
A2DFCL0K1UCP	Ultraclean Plus (UCP)	DUO	Long Capsule	5 nm	No
A2DKC00K1UCP	Ultraclean Plus (UCP)	DUO	Short Capsule	3 nm	No
A2DKCL0K1UCP	Ultraclean Plus (UCP)	DUO	Long Capsule	3 nm	No
A2DTC00K1UCP	Ultraclean Plus (UCP)	DUO	Short Capsule	10 nm	No
A2DTCL0K1	Standard	DUO	Long Capsule	10 nm	No
A2DTCL0K1UCP	Ultraclean Plus (UCP)	DUO	Long Capsule	10 nm	No
A2NTC00K1	Standard	Nylon	Short Capsule	10 nm	No
A2NTC00K1UC	Ultraclean (UC)	Nylon	Short Capsule	10 nm	No
A2NTCL0K1	Standard	Nylon	Long Capsule	10 nm	No
A2NTCL0K1UC	Ultraclean (UC)	Nylon	Long Capsule	10 nm	No
A2NXC00K1	Standard	Nylon	Short Capsule	20 nm	No
A2NXC00K1UCP	Ultraclean Plus (UCP)	Nylon	Short Capsule	20 nm	No

ORDERING INFORMATION

PART NUMBER	FILTER CLEANING	MEMBRANE/MEDIA	FORM FACTOR	RETENTION RATING	PREWET
A2NXCL0K1	Standard	Nylon	Long Capsule	20 nm	No
A2NXCL0K1UCP	Ultraclean Plus (UCP)	Nylon	Long Capsule	20 nm	No
A2SFC0MK1	Standard	UPE	Short Capsule	5 nm	No
A2SFCLMK1	Standard	UPE	Long Capsule	5 nm	No
A2SKC0MK1	Standard	UPE	Short Capsule	3 nm	No
A2SKCLMK1	Standard	UPE	Long Capsule	3 nm	No
A2SKCLMK1PW	Standard	UPE	Long Capsule	3 nm	Yes (DI water)
A2STC0MK1	Standard	UPE	Short Capsule	10 nm	No
A2STCLMK1	Standard	UPE	Long Capsule	10 nm	No
S4440R136Y18	Standard	UPE Oktolox™	Long Capsule	G1	No

FOR MORE INFORMATION

Please call your Regional Customer Service Center today to learn what Entegris can do for you. Visit [entegris.com](https://www.entegris.com) and select the [Contact Us](#) link to find the customer service center nearest you.

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