

Microgard™ Gen 1 UPE Cartridge and Disposable Filters

Optimized to enhance filter retention of the smallest contaminants in the most advanced photochemicals

Microgard™ Gen 1 UPE filters deliver contamination control in advanced photochemical applications. Designed for 5 nm and below advanced nodes, these filters are optimized for small contaminant retention, reducing on-wafer defectivity while providing consistent filtration performance. The product portfolio includes 10" and 20" cartridge filters as well as a disposable configuration to meet your applications needs.



Microgard Gen 1 UPE cartridge filters

APPLICATIONS

Ideally suited for 5 nm and below advanced photochemical applications, including:

- Photoresist
- Other ancillary chemicals
- Solvents



Microgard Gen 1 UPE disposable filter

FEATURES & BENEFITS

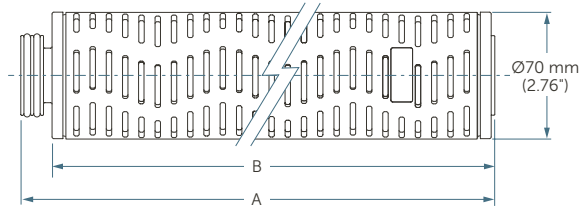
UPE membrane	Provides high removal efficiency of small contaminants, reducing wafer defect potential
Optimized flow rate	Achieves high retention of small contaminants without significantly impacting productivity
Latest UPE cleaning process	Provides consistent filtration performance and meets critical process cleanliness demands

SPECIFICATIONS

	CARTRIDGE		DISPOSABLE
Materials of construction	Supports, core, sleeve	High density polyethylene (HDPE)	
	Membrane	UPE	
	O-ring	E-FKM (2-222)	—
Connection	—		¼" compression fitting
Surface area	10"	70 mm: 1.15 m ² (12.4 ft ²) 83 mm: 1.69 m ² (18.2 ft ²)	0.22 m ² (2.4 ft ²)
	20"	70 mm: 2.30 m ² (24.8 ft ²) 83 mm: 3.39 m ² (36.5 ft ²)	
Flow performance	10"	70 mm: 2.0 L/min @ 39.2 kPa (5.7 psi) 83 mm: 3.3 L/min @ 39.2 kPa (5.7 psi)	0.625 L/min @ 58.8 kPa (8.5 psi)
	20"	70 mm: 4.0 L/min @ 39.2 kPa (5.7 psi) 83 mm: 6.5 L/min @ 39.2 kPa (5.7 psi)	
Maximum operating conditions	Maximum forward differential/reverse pressure: 0.24 MPa (35 psi) @ 25°C (77°F)		Maximum inlet pressure: 0.34 MPa (50 psi) @ 25°C (77°F)
			Maximum forward differential/reverse pressure: 0.27 MPa (39 psi) @ 25°C (77°F)
Maximum operating temperature: 60°C (140°F)			
Metallic extractables	Ultraclean Plus: 23 metals		

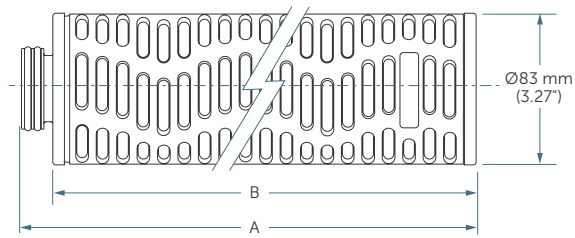
DIMENSIONS

Cartridge Filters (70 mm)



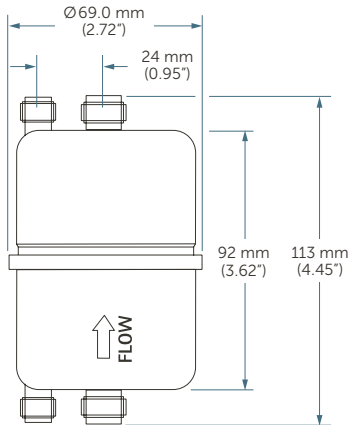
Length	A	B
10"	262.3 mm (10.33")	245.0 mm (9.65")
20"	506.5 mm (19.94")	489.2 mm (19.26")

Cartridge Filters (83 mm)



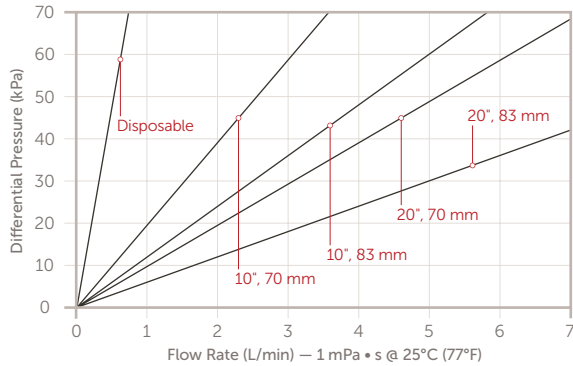
Length	A	B
10"	242.3 mm (9.54")	225.0 mm (8.86")
20"	471.0 mm (18.54")	454.0 mm (17.87")

Disposable Filter



PERFORMANCE DATA

Microgard Gen 1 UPE Filters



ORDERING INFORMATION

Part number	Description	Cleaning
MU0101MTP100ND	10" length, 70 mm diameter, cartridge filter	Ultraclean Plus (UCP)
MU0101XTP100ND	10" length, 83 mm diameter, cartridge filter	Ultraclean Plus (UCP)
MU0102MTP100ND	20" length, 70 mm diameter, cartridge filter	Ultraclean Plus (UCP)
MU0102XTP100ND	20" length, 83 mm diameter, cartridge filter	Ultraclean Plus (UCP)
MU01DS10P200ND	Short, Optimizer® disposable filter	Ultraclean Plus (UCP)

FOR MORE INFORMATION

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