# ULPA Filter Capsules (99.999% efficiency at 0.12µm)

#### **Ultra Low Particulate Air and Gas Filter**

PureFlo® ULPA (**U**ltra **L**ow **P**articulate **A**ir) capsules are designed for high retention and particle holding capacity for air and gas in the pharmaceutical, biotechnology, medical, chemical, food and beverage applications worldwide. This family of products is particularly suitable for a variety of gases with four different filtration media to choose from.

They are designed to provide bacteria, algae, fungal-free air for sterile applications such as fermentors or incubators. The capsules have a durable polypropylene housings. The media allows for high flow rates and low pressure drops.



Applications						
Tank Vent	Air Filter					
Vacuum pump	Beverages					
Fermentor	Pharmaceuticals					
Fine Chemicals	Biologics					
Incubator	Wine					
Beer	Water					

### **Specifications**

Materials of Construction:	Media: Non-Woven Borosilicate Microfiber Media Supports: Polypropylene Shell, Cage, Core, and End Caps: Polypropylene
Fitting Connections:	Hose Barb, NPT, Compression Quick Couplings, and Sanitary. Any inlet/outlet combinations. (Custom adaptors available upon request)
Nominal Dimensions:	Length: 1.5 in (68 mm), Length: 2.5 in (98 mm), Length: 5.0 in (153 mm), Length: 7.5 in (221mm), Length: 10 in (276mm), Diameter: 2.88 in (73 mm), MK Size:2.3in (60mm)
Effective Filtration Area:	1.5 in: 260cm <sup>2</sup> , 2.5 in: 500cm <sup>2</sup> , 5.0 in 1000cm <sup>2</sup> 7.5 in:1500, 10 in:2000 cm <sup>2</sup> , MKL Size: 300cm <sup>2</sup>
Operating Conditions:	Maximum Operating Pressure: Liquid: 5.5 bar (80psi) at 72°F/22°C Gas: 4.1 bar (60psi) at 72°F/22°C Maximum Forward Differential Pressure: 4.1 bar (60psi) at 72°F/22°C Maximum Reverse Differential Pressure: 2.1 bar (30 psi) at 72°F/22°C Minimum Burst Pressure: 8.3 bar (120psi) at 72°F/22°C Maximum Operating Temperature: 140°F/60°C
ULPA Rated: Pyrogenicity:	Ensures particulate-free air 99.999% retention of 0.12 $\mu m$ DOP aerosol <0.25 EU/ml using the LAL test method
Autoclavable & Sanitizable:	Capsules can be autoclaved 25 times at 257°F/125°C for 30 minutes or chemically sanitized in situ using common sanitizing agents or hot water at 194°F/90°C for a limited time (dependent on time and temperature). Capsules must not be in situ steam-sterilized.
Regulatory Compliance:	The filters are constructed with polypropylene resins and filtration media in compliance with 21CFR Part 177 of the US Code of Federal Regulations and USP

Class VI Biological Test for Plastic.



# **ULPA Filter Capsules**

### **PureFlo MK Series ULPA Filter Capsule Ordering Guide**

PureFlo Capsule Filters	Filter Media	Pore size (Micron)	Surface Area	Inlet Fitting	Outlet Fitting	Options	
				1C	1C = 1/8" Compression	Shell Material	
MKL	<b>G</b> = Glass Fiber	U = ULPA	<b>B</b> = 300cm2	1H	1H = 1/8" Hose Barb	Blank = Polypro construction	
60mm Diameter				1Q	1Q = 1/8" Male Quick Coupling	-E = Polyethylene shell and	
Commi Diameter				1QF	1QF = 1/8" Female Quick Coupling	HDPE media support	
				1QE	1QE = 1/8" Male Quick Coupling Elbow	-BLK = Black PP Shell	
				1QFV	1QFV = 1/8" Female Quick Connect w/Valve	-GP = Gamma stable	
				1QV	1QV = 1/8" Male Quick Connect w/Valve	polypropylene shell	
				2C	2C = 1/4" Compression	-NY = Nylon Shell	
				2CE	2CE = 1/4" Compression Elbow	Vent & Drain	
				2H	2H = 1/4" Hose barbs	-N = No vent or drain fittings	
			G Media is	2N	2N = 1/4" MNPT	-NI = No vent or drain inlet	
			only	2NO	2NO = Short 1/4" MNPT+EP O-Ring	-NO = NO vent or drain outlet	
			available in	2NS	2NS = Short 1/4" MNPT	Sterilization	
			Surface Area "B"	2Q	2Q = 1/4" Male Quick Coupling for Metal latch	-ETO = Ethylene oxide	
			(300cm2)	2QE	2QE = 1/4" Male Quick Coupling for Metal latch Elbow	sterilization	
			,	2QF	2QF = 1/4" Female Quick Coupling with Metal latch	O-Ring for Quick Coupling	
				2QFV	2QFV = 1/4" Female Quick Connect w/Valve	Blank = O-ring Silicone	
				2QV	2QV = 1/4" Male Quick Connect w/Valve	(Standard)	
				зн	3H = 3/8" Hose Barb	-OE = O-ring EPDM	
				3NF	3NF = 3/8" Female NPT	-ON = O-ring Nitrile	
				5H	<b>5H</b> = 5/8" Hose Barb	-OV = O-ring Viton	
				LF	LF = Female Luer Lock		
				LFE	LFE = Female Luer Lock Elbow		
				MT	MT = 1/2" Tri clamps		
	Example - MKL Series, Glass Fiber, ULPA, 300cm2, 1/4" Hose Barb I/O is MKLGUB2H2H						
Male Quick Couplings are	Male Quick Couplings are molded, Female Quick Coupling with Plastic latch will be threaded on, compatible with CPC (Colder), LinkTech and other compatible couplings.						



MK Series Filter



**PureFlo SK Series ULPA Filter Capsule Ordering Guide** 

PureFlo Capsule Filters	Filter Media	Pore size (Micron)	Length	Input Fitting	Output Fitting	Options	
			<b>H</b> = 1.5"	1C	1C = 1/8" Compression	Shell Material	
SKL	<b>G</b> = Glass Fiber	U = ULPA	<b>S</b> = 2.5"	1H	1H = 1/8" Hose barbs	Blank = Polypro	
70 5: .			L = 5"	1N	<b>1N</b> = 1/8" MNPT	-E = Polyethylene shell	
70mm Diameter Capsule			<b>E</b> = 7.5"	1NF	1NF = 1/8" FNPT	and HDPE media support	
Capsule			K = 10"	1Q	1Q = 1/8" Male Quick Coupling with Metal latch	-BLK = Black PP Shell	
				1QF	1QF = 1/8" Female Quick Coupling with Metal latch	-GP = Gamma stable	
				1QFV	1QFV = 1/8" Female Valved Quick Coupling with Metal latch	polypropylene shell	
				1QV	1QV = 1/8" Male Valved Quick Coupling with Metal latch	-NY = Nylon Shell	
				2C	2C = 1/4" Compression	Vent & Drain	
				2H	2H = 1/4" to 1/2" Hose barbs	-N = No vent or drain	
				2HS	2HS = 1/4" to 3/8" Hose barbs	-NI = No vent or drain	
				2LF	2LF = Large Female Luer Lock fitting	<b>-NO</b> = NO vent or drain	
				2N	2N = 1/4" MNPT	Sterilization	
				2NF	2NF = 1/4" FNPT	-ETO = Ethylene oxide	
				2P	2P = 1/4" Push to Connect		
				2PE	2PE = 1/4" Push to Connect Elbow	O-Ring for Quick	
				2Q	2Q = 1/4" Male Quick Coupling for Metal latch	Blank = O-ring Silicone	
				2QF	2QF = 1/4" Female Quick Coupling with Metal latch	(Standard)	
				2QFP	2QFP = 1/4" Female Quick Coupling with Plastic latch	-OE = O-ring EPDM	
				2QFV	2QFV = 1/4" Female Valved Quick Coupling with Metal latch	-ON = O-ring Nitrile	
				2QP	2QP = 1/4" Male Quick Coupling for Plastic latch	-OV = O-ring Viton	
				2QV	2QV = 1/4" Male Valved Quick Coupling with Metal latch		
				2V	2V = 1/4" Walther Quick Connect		
				3C	3C = 3/8" Compression		
				3H	3H = 3/8" Hose Barb		
				3HE	3HE = 3/8" Hose Barb Elbow		
				3NF	3NF = 3/8" FNPT		
				4C	4C = 1/2" Compression		
				4H	<b>4H</b> = 1/2" Hose Barb		
		l		4N	4N = 1/2" MNPT		
		l		4Q	4Q = 1/2" Male Quick Coupling for Plastic latch		
		1			8C = 5/16" Compression		
		l		мт	MT = 1/2" Tri clamps		
				тс	TC = 1-1/2" Tri clamp		
	Example - 2.5", Glass Fiber, ULPA rated Capsule, with 1/2" Hose Barb fittings would be SKLGUS4H4H						

Male Quick Couplings are molded, Female Quick Coupling with Plastic latch will be threaded on, compatible with CPC (Colder), LinkTech and other compatible couplings



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