

## MZP Series Capsules (Mini Capsule)

### Versatile Small Capsule

PureFlo® MZP (part of the MKL Series) capsule filter assemblies are ready-to-use filters, ideally suited for disposable Bio-bag applications. They offer mid-scale filtration with the convenience and cleanliness of an easy-to-install disposable filter assembly for the pharmaceutical, biotechnology, food and beverage, medical, chemical, water industries worldwide. The main benefit is ease of pre and post integrity testing for the validation of filtered product.

The MZP capsules have a compact design that can incorporate 200, 300, 400 or 500 cm<sup>2</sup> of filtration material to meet the needs of different applications. Process engineers can choose from 4 different filtration medias with 26 different fitting options to create any *integrated* filtration product. This will allow the post integrity testing process to become truly quick and easy.

No adhesives, binders, or surfactants are used in the manufacturing process. All units are thermally-sealed and 100% integrity tested.



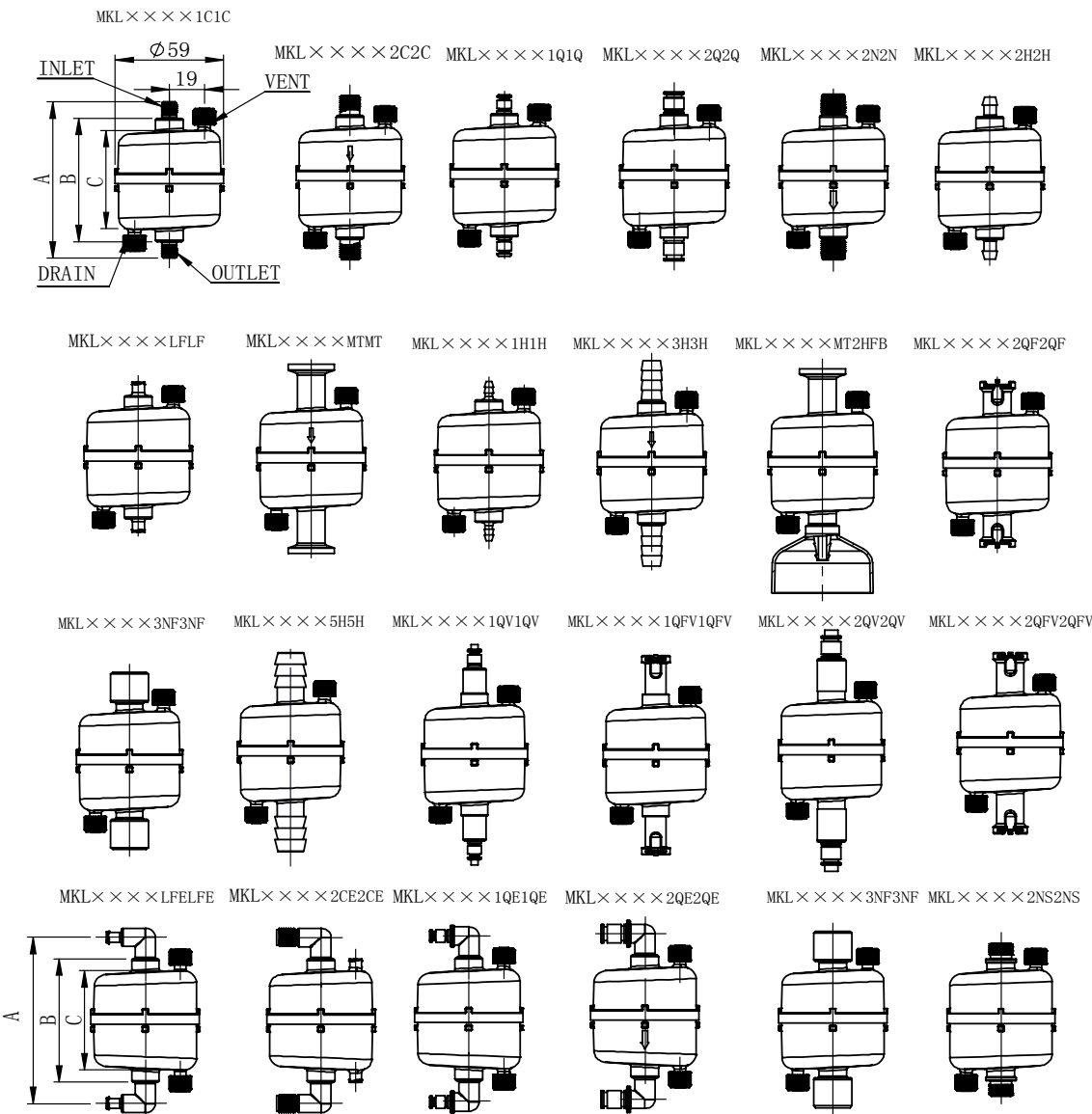
#### Applications

Low Flow	Pharmaceuticals
Lab Scale Testing	Biologics
BioBags	Scale-up Processing
Water	Small volume

### Specifications

Materials of Construction:	Media: Nylon, PTFE, and PES Media Supports: Polyester Shell, Cage, Core: Polypropylene ; Internal End Caps: Nylon Sealing: Thermally-welded/ O-rings
Fitting Connections:	See ordering guide for the availability. Any inlet/outlet combinations. (Custom adaptors available upon request)
Nominal Dimensions:	Length: 3.9 in. (99 mm) Diameter: 2.3 in. (60 mm)
Available Ratings:	0.04 µm to 70 µm (see Ordering Guide)
Operating Conditions:	Maximum Operating Pressure: Liquid: 5.5 bar (80 psi) at 22 °C Gas: 4.1 bar (59.5 psi) at 22 °C Maximum Forward Differential Pressure: 5.0 bar (72.5 psid) at 22 °C Maximum Reverse Differential Pressure: 2.1 bar (30.5 psid) at 80 °C Minimum Burst Pressure: 8.3 bar (120 psid) at 22 °C Maximum Operating Temperature: PP, Gamma PP & Nylon: 80 °C
Autoclavable & Sanitizable:	Polypropylene and Nylon shell capsules can be autoclaved 25 times at 125 °C (257 °F) for 30 minutes or chemically sanitized in situ using common sanitizing agents or hot water at 90 °C (194 °F) for a limited time (dependent on time and temperature). Capsules must not be in situ steam-sterilized. Polyethylene Shelled Capsules can not be autoclaved.
Regulatory Compliance:	The filters are constructed with resins and filtration media in compliance with 21 CFR Part 177 of the US Code of Federal Regulations and USP Class VI Biological Test for Plastic. Flammability rating for the PP shell material is UL94HB.

MZP (MKL Series Fitting options and Sizes)



Code name	Inlet/Outlet	Vent/Drain	Size(±1.5)		
			A	B	C
MKL × × × 1C1C	1/8" Compression	Female Luer Lock	94	74	60
MKL × × × 2C2C	1/4" Compression	Female Luer Lock	99	74	60
MKL × × × 1Q1Q	1/8" Male Quick Coupling	Female Luer Lock	97	74	60
MKL × × × 2Q2Q	1/4" Male Quick Coupling	Female Luer Lock	102	74	60
MKL × × × 2N2N	1/4" MNPT	Female Luer Lock	100	74	60
MKL × × × 2H2H	1/4" Hose barbs	Female Luer Lock	98	74	60
MKL × × × LFLF	Female Luer Lock	Female Luer Lock	90	74	60
MKL × × × MTMT	0.5" Tri clamps	Female Luer Lock	114	74	60
MKL × × × 1H1H	1/8" Hose barbs	Female Luer Lock	96	74	60
MKL × × × 3H3H	3/8" Hose barbs	Female Luer Lock	124	74	60
MKL × × × MT2HFB	0.5" Tri clamps/1/4Hose barbs	Female Luer Lock	135	74	60
MKL × × × 2QF2QF	1/4" Female Quick Connect	Female Luer Lock	100	74	60
MKL × × × 3NF3NF	3/8" FNPT	Female Luer Lock	106	74	60
MKL × × × 2NS2NS	1/4" NPTS	Female Luer Lock	92	74	60
MKL × × × 5H5H	5/8" Hose barbs	Female Luer Lock	120	74	60
MKL × × × 1QV1QV	1/8" Male Quick Coupling	Female Luer Lock	133	74	60
MKL × × × 1QFV1QFV	1/8" Female Quick Connect	Female Luer Lock	120	74	60
MKL × × × 2QV2QV	1/4" Male Quick Coupling	Female Luer Lock	145	74	60
MKL × × × 2QFV2QFV	1/4" Female Quick Connect	Female Luer Lock	109	74	60
MKL × × × LFLFPE	Female Luer Lock	Female Luer Lock	100	74	60
MKL × × × 2CE2CE	1/4" Compression	Female Luer Lock	100	74	60
MKL × × × 1QE1QE	1/8" Male Quick Coupling	Female Luer Lock	100	74	60
MKL × × × 2QE2QE	1/4" Male Quick Coupling	Female Luer Lock	100	74	60

Dimensions (mm)

## MZP Series Capsules



### PureFlo MZP Series Capsule Ordering Guide

PureFlo Capsule Filters	Filter Media	Pore size (Micron)	Surface Area	Inlet Fitting	Outlet Fitting	Options
<b>MZP</b> = Pharma grade (For PTFE, PES and PE Media only)  Nylon end-caps Polyester Membrane support Polypropylene Shell, Cage & Core	<b>CN</b> = Charged Nylon <b>HF</b> = Hydrophilic PTFE <b>N</b> = Nylon <b>S</b> = PES	<b>Pick From Pore Size Table</b>	<b>A</b> = 200cm <sup>2</sup> <b>B</b> = 300cm <sup>2</sup> <b>C</b> = 400cm <sup>2</sup> <b>D</b> = 500cm <sup>2</sup>	<b>1C</b> = 1/8" Compression <b>1H</b> = 1/8" Hose Barb <b>1Q</b> = 1/8" Male Quick Coupling <b>1QF</b> = 1/8" Female Quick Coupling <b>1QE</b> = 1/8" Male Quick Coupling <b>1QFV</b> = 1/8" Female Quick Connect <b>1QV</b> = 1/8" Male Quick Connect <b>2C</b> = 1/4" Compression <b>2CE</b> = 1/4" Compression Elbow <b>2H</b> = 1/4" Hose barbs <b>2N</b> = 1/4" MNPT <b>2NO</b> = Short 1/4" MNPT+EP O-Ring <b>2NS</b> = Short 1/4" MNPT <b>2Q</b> = 1/4" Male Quick Coupling for <b>2QE</b> = 1/4" Male Quick Coupling for <b>2QF</b> = 1/4" Female Quick Coupling <b>2QFV</b> = 1/4" Female Quick Connect <b>2QV</b> = 1/4" Male Quick Connect <b>3H</b> = 3/8" Hose Barb <b>3NF</b> = 3/8" Female NPT <b>5H</b> = 5/8" Hose Barb <b>LF</b> = Female Luer Lock <b>LFE</b> = Female Luer Lock Elbow <b>MT</b> = 1/2" Tri clamps	<b>1C</b> = 1/8" Compression <b>1H</b> = 1/8" Hose Barb <b>1Q</b> = 1/8" Male Quick Coupling <b>1QF</b> = 1/8" Female Quick Coupling <b>1QE</b> = 1/8" Male Quick Coupling Elbow <b>1QFV</b> = 1/8" Female Quick Connect w/Valve <b>1QV</b> = 1/8" Male Quick Connect w/Valve <b>2C</b> = 1/4" Compression <b>2CE</b> = 1/4" Compression Elbow <b>2H</b> = 1/4" Hose barbs <b>2N</b> = 1/4" MNPT <b>2NO</b> = Short 1/4" MNPT+EP O-Ring <b>2NS</b> = Short 1/4" MNPT <b>2Q</b> = 1/4" Male Quick Coupling for Metal latch <b>2QE</b> = 1/4" Male Quick Coupling for Metal latch <b>2QF</b> = 1/4" Female Quick Coupling with Metal latch <b>2QFV</b> = 1/4" Female Quick Connect w/Valve <b>2QV</b> = 1/4" Male Quick Connect w/Valve <b>3H</b> = 3/8" Hose Barb <b>3NF</b> = 3/8" Female NPT <b>5H</b> = 5/8" Hose Barb <b>LF</b> = Female Luer Lock <b>LFE</b> = Female Luer Lock Elbow <b>MT</b> = 1/2" Tri clamps <b>2H -FB</b> = 1/4" Hose barbs with Filling Bell <b>2H -FC</b> = 1/4" Hose barbs with Filling Bell w/ Cap	<b>Shell Material</b> <b>Blank</b> = Polypro construction <b>E</b> = Polyethylene shell and HDPE media support for gamma sterilization <b>GP</b> = Gamma stable polypropylene <b>NY</b> = Nylon Shell  <b>Vent &amp; Drain</b> <b>-N</b> = No vent or drain fittings <b>-NI</b> = No vent or drain inlet fitting <b>-NO</b> = NO vent or drain outlet fitting  <b>Sterilization</b> <b>ETO</b> = Ethylene oxide sterilization  <b>O-Ring for Quick Coupling</b> <b>Blank</b> = O-ring Silicone (Standard) <b>-OE</b> = O-ring EPDM <b>-ON</b> = O-ring Nitrile <b>-OV</b> = O-ring Viton  <b>Prefilter (add before Filter Media in part#)</b> <b>G(pore Size)</b> = Glass Fiber PreFilter <b>P(pore Size)</b> = PolyPro Media PreFilter <b>S(pore Size)</b> = PES PreFilter

Example - MZP Series, PES, 0.2um, 500cm<sup>2</sup>, 1/4" Hose Barb I/O is **MZPS020D2H2H**

### PureFlo MZP Series Media & Pore Size options

Pore size (Micron)			
Charged Nylon (CN)	Philic PTFE (HF)	Nylon (N)	PES (S)
005 = 0.05	010 = 0.1	005 = 0.05	005 = 0.05
010 = 0.10	020 = 0.2	010 = 0.10	010 = 0.1
020 = 0.20	045 = 0.45	020 = 0.20	020 = 0.2
045 = 0.45	100 = 1.0	045 = 0.45	045 = 0.45
065 = 0.65	300 = 3.0	065 = 0.65	065 = 0.65
080 = 0.80	500 = 5.0	080 = 0.80	080 = 0.8
120 = 1.20	999 = 10.0	120 = 1.20	120 = 1.2

Your Local Distributor:

**ZenPure**

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 ZenPure Americas, Inc  
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[Info-us@zenpure.com](mailto:Info-us@zenpure.com)  
 703-335-9910

All Other Regions:  
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