**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 cm² of filtration material to meet the needs of different applications. Process engineers can choose from 4 different filtration medias with 27 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 or binders are used in the encapsulation process. All units are thermally-sealed and 100% integrity tested.

**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: 3.6 -5.1 in (91-129 mm)  
|                           | Diameter: 2.3 in. (60 mm) |
| Available Ratings:        | 0.04 µm to 10 µm (see Ordering Guide) |
| Operating Conditions:     | Maximum Operating Pressure: Liquid: 5.5 bar (80 psi) at 72 °F/22 °C  
|                           | Maximum Forward Differential Pressure: 5.0 bar (72 psid) at 72 °F/22 °C  
|                           | Maximum Reverse Differential Pressure: 2.1 bar (30 psid) at 72 °F/22 °C  
|                           | Minimum Burst Pressure: 8.3 bar (120 psid) at 72 °F/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)

<table>
<thead>
<tr>
<th>Code name</th>
<th>Inlet/Outlet</th>
<th>Vent/Drain</th>
<th>Size (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKL-1H1H</td>
<td>1/8&quot; compression</td>
<td>Female Luer Lock</td>
<td>94</td>
</tr>
<tr>
<td>MKL-1QFV1QF</td>
<td>1/8&quot; female quick coupling</td>
<td>Female Luer Lock</td>
<td>100</td>
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<tr>
<td>MKL-2QFV2QF</td>
<td>1/4&quot; compression</td>
<td>Female Luer Lock</td>
<td>114</td>
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<tr>
<td>MKL-2HEH</td>
<td>1/4&quot; hose barbs</td>
<td>Female Luer Lock</td>
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<tr>
<td>MKL-2QE2QE</td>
<td>1/8&quot; male quick coupling</td>
<td>Female Luer Lock</td>
<td>109</td>
</tr>
<tr>
<td>MKL-2V1V2V</td>
<td>1/4&quot; hose barbs</td>
<td>Female Luer Lock</td>
<td>119</td>
</tr>
<tr>
<td>MKL-2CF2CF</td>
<td>3/8&quot; compression</td>
<td>Female Luer Lock</td>
<td>125</td>
</tr>
<tr>
<td>MKL-2CF2CF</td>
<td>3/8&quot; FNPT</td>
<td>Female Luer Lock</td>
<td>106</td>
</tr>
<tr>
<td>MKL-2Q2Q</td>
<td>1/4&quot; Male Quick Coupling</td>
<td>Female Luer Lock</td>
<td>100</td>
</tr>
</tbody>
</table>

Dimensions (mm)
# MZP Series Capsules

## PureFlo MZP Series Capsule Ordering Guide

**PureFlo MZP Series Filters**  
- **CN** = Charged Nylon  
- **HF** = Hydrophilic PTFE  
- **N** = Nylon  
- **S** = PES

<table>
<thead>
<tr>
<th>PureFlo Capsule</th>
<th>Filter Media</th>
<th>Pore size (Micron)</th>
<th>Surface Area</th>
<th>Inlet Fitting</th>
<th>Outlet Fitting</th>
<th>Options</th>
</tr>
</thead>
</table>
| **MZP** = Pharma grade | **CN** = Charged Nylon | 1C | A = 200cm² | 1C = 1/8” Compression |  | Blank = Gamma stable polypropylene shell (standard)  
| | **HF** = Hydrophilic PTFE | 1H | B = 300cm² | 1H = 1/8” Hose Barb |  | Blank = O-ring silicone (Standard)  
| | **N** = Nylon | 1Q | C = 400cm² | 1Q = 1/8” Male Quick Coupling |  | Blank = O-ring EPDM  
| | **S** = PES | 1QF | D = 500cm² | 1QF = 1/8” Female Quick Connect w/Valve |  | Blank = O-ring Nitrile  

**Pick From Pore Size Table**  
- **2C**: 2C = 1/4” Compression  
- **2CE**: 2CE = 1/4” Compression Elbow  
- **3H**: 3H = 3/8” Hose Barb  
- **3NF**: 3NF = 3/8” Female NPT  
- **5H**: 5H = 5/8” Hose Barb  
- **5NF**: 5NF = 5/8” Female NPT  
- **BH**: BH = 3/16” Hose Barb  
- **LF**: LF = Female Luer Lock  
- **LFE**: LFE = Female Luer Lock Elbow  
- **LM**: LM = Male Luer Lock  
- **MT**: MT = 1/2” Tri clamps  
- **2H - FB**: 2H - FB = 1/4” Hose barbs with Filling Bell  
- **2H - FC**: 2H - FC = 1/4” Hose barbs with Filling Bell w/ Cap  
- **2Q**: 2Q = 1/4” Male Quick Coupling for Metal latch  
- **2QE**: 2QE = 1/4” Male Quick Coupling for Metal latch Elbow  
- **2QP**: 2QP = 1/4” Male Quick Connect for Plastic latch  
- **2QF**: 2QF = 1/4” Female Quick Connect for Plastic latch  
- **2QFV**: 2QFV = 1/4” Female Quick Connect w/Valve  
- **2QV**: 2QV = 1/4” Female Quick Connect w/Valve  
- **3H**: 3H = 3/8” Hose Barb  
- **3NF**: 3NF = 3/8” Female NPT  
- **5H**: 5H = 5/8” Hose Barb  
- **5NF**: 5NF = 5/8” Female NPT  
- **BH**: BH = 3/16” Hose Barb  
- **LF**: LF = Female Luer Lock  
- **LFE**: LFE = Female Luer Lock Elbow  
- **LM**: LM = Male Luer Lock  
- **MT**: MT = 1/2” Tri clamps  
- **2H - FB**: 2H - FB = 1/4” Hose barbs with Filling Bell  
- **2H - FC**: 2H - FC = 1/4” Hose barbs with Filling Bell w/ Cap  

**Options**  
- Blank = Gamma stable polypropylene shell (standard)  
- Blank = O-ring silicone (Standard)  
- Blank = O-ring EPDM  
- Blank = O-ring Nitrile  
- Blank = O-ring Viton  
- Prefilter (add before Filter Media in part #)  
- Gl(pore size) = Glass Filter Prefilter  
- P(pore size) = PolyPro Media Prefilter  
- S(pore size) = PES Prefilter  

**Example**  
- MZP Series, PES, 0.2um, 500cm², 1/4” Hose Barb I/O is MZPS020D2H2H

## PureFlo MZP Series Media & Pore Size options

<table>
<thead>
<tr>
<th>Pore size (Micron)</th>
<th>Charged Nylon (CN)</th>
<th>Philic PTFE (HF)</th>
<th>Nylon (N)</th>
<th>PES (S)</th>
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<tbody>
<tr>
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<td>120</td>
<td>1.20</td>
<td>10.0</td>
<td>1.20</td>
<td>1.2</td>
</tr>
</tbody>
</table>

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A9.4  Rev 2013.12