

### Masterfilter MS series

The Masterfilter *MasterSip* MS series are designed for use in sterile air and gas filtration in bio-pharmaceutical and other applications. Composed of a hydrophobic PTFE membrane and a polyetherimide housing, these capsule filters provide an alternative to a stainless-steel housing/filter combination and thus reduces operating costs and maintenance time. Engineered polyetherimide material allows multiple SIP (steam-in-place) cycles at high pressures and temperatures.

### Applications

- Bioreactor sterile air in and out
- Venting steamed in place
- High pressure sterile air supply
- SIP sterile gas supply

### Features and Benefits

- In situ Integrity testable by WIT and diffusion flow
- Low investment cost compared to a standard filter and stainless-steel housing system
- Steam sterilisable with long service life
- Able to operate at high gas pressures up to 6.9 bar

### Materials of Construction

- Filter membrane: Hydrophobic PTFE
- Removal rating: 0.2 µm
- Supports: Polypropylene
- Cage: Polypropylene
- Core: Polypropylene
- End caps: Polypropylene
- Capsule housing: Polyetherimide
- Adapter internal support: Stainless steel 316L
- O-rings: Silicone
- Vent O-rings: Silicone

### Dimensions

- Overall length: 159 mm
- Body diameter: 81 mm
- Effective filtration area: 0.2 m<sup>2</sup>



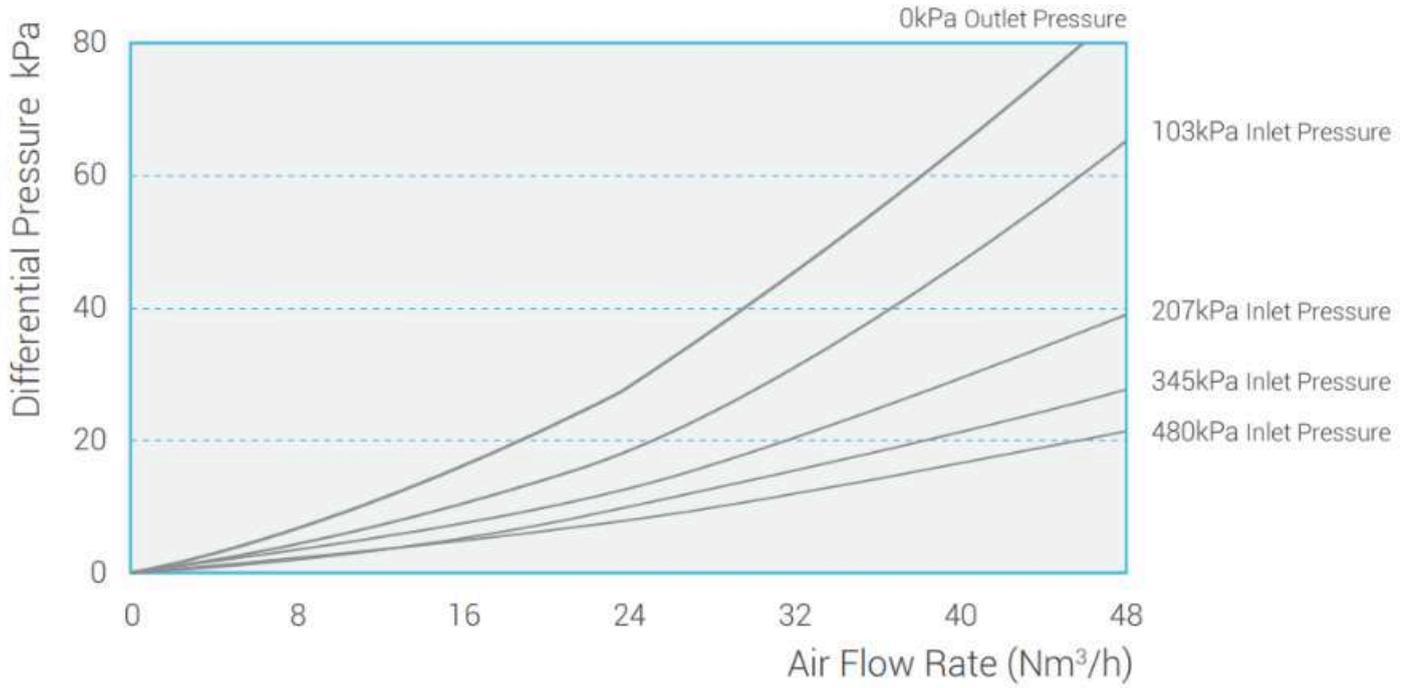
### Operating Parameters

- Max. operating pressure: 6.9 bar at 25 °C, 4.0 bar at 60 °C, 2.4 bar at 80 °C
- Max. differential pressure forward: 6.9 bar at 25 °C, 4.0 bar at 60 °C, 2.4 bar at 80 °C
- Max. differential pressure reverse: 3.0 bar at 40 °C, 1.0 bar at 80 °C
- SIP: up to 10 cycles at 142 °C for 30 minutes, up to 50 cycles at 135 °C for 30 minutes, up to 100 cycles at 125 °C for 30 minutes
- Autoclave: up to 50 cycles at 131 °C for 30 minutes

### Biological Safety

- Comply with the relevant requirements of EU 1935/2004 and EU directive 10/2011
- Bacterial Endotoxin: Aqueous extraction of autoclaved filter contains < 0.25 EU/ml as determined by Limulus Amebocyte Lysate (LAL), USP <85>.
- Component materials meet the criteria for a "Non-fiber-releasing filter" as defined in 21 CFR 210.3 (b) (6)
- Meet the criteria of the USP <88> Biological Reactivity Test for Class VI-121°C plastics
- Retention of 10<sup>7</sup> cfu/cm<sup>2</sup> *Brevundimonas diminuta* (ATCC®19146) according to ASTM F838
- All component materials meet the FDA Indirect Food Additive requirements cited in 21 CFR 177-182

## Flow Rate Characteristics



## Part Numbers

MS- T - 002 06 - T -

Code	Membrane	Code	Removal rating [µm]	Code	Length		Code	Vent / Drain
					[mm]	[inch]		
T	PTFE	002	0.2	06	159	6.2	H	Hose barb
							S	Stäubli / Hose barb
							T	Stäubli nipple

e.g. part number: MS-T002-06-T

MasterSip Capsule filter, PTFE, 0.2 µm, 6.2" Length, Vent / Drain: Stäubli nipple