

# Stellarfil Filter Cartridge



Stellarfil cartridges have been specifically designed by Microfiltrex for use as final filters in process applications and as prefilters in sub-micronic membrane filtration systems

## Cartridge Construction

Stellarfil cartridges incorporate a multi-layer of melt blown polypropylene and a dual layer of glass media, pleated with polypropylene upstream irrigation and downstream drainage materials. The outer sleeve, inner core and integral end-cap adapters are made of polypropylene. Multiple length cartridges with industry standard adapter styles are produced to fit most housing designs and system sizes. All materials are traceable and CFR 21 listed for direct food contact. Cartridges are constructed in a clean room under tightly controlled conditions using advanced, highly specialised machinery. Quality and consistency of product are assured by the quality control procedures in place throughout all stages of manufacture

## Applications

- **Process Water Systems** – for the filtration of process water in pure water supply systems
- **Food and Beverage** – for clarification of foods and beverages including syrup, beer, wine and spirits
- **Cosmetics** – for clarification and sterilisation of intermediates and final products
- **Pharmaceuticals and Bioprocessing** – for batch preparation of intermediates used in manufacture

## Features and Benefits

- Hybrid pleated/depth construction combines the dirt holding capabilities of continuously spun depth filters, with the precise cut-off characteristics common to pleated media cartridges
- The dual-layer glass media offers excellent flow rates at low differential pressures
- Stellarfil cartridges are manufactured using high quality components made from non-toxic and biologically inert raw materials. All components are FDA listed for food contact in the Code of Federal Regulations (CFR), Title 21
- Fusion bonded construction for high integrity and minimum extractables
- Stellarfil cartridges contain no added surfactants or wetting agents that could alter taste
- Advanced cartridge design coupled with enhanced thermal stability of the glass media ensures cartridge integrity is maintained during multiple cycles of hot water sanitation and in-line steam sterilisation



## Specifications

### Absolute Particle Retention

Rating ( $\beta_{5000}$ ) 99.98% efficient 0.6  $\mu\text{m}$ , 1  $\mu\text{m}$ , 2  $\mu\text{m}$ .

### Materials of Manufacture

Filter Medium	Prefiltration Layer	Polypropylene
	Final Filtration Layer	Glass Fibre
Irrigation/support		Polypropylene
Drainage Layer		Polypropylene
Cartridge Hardware		Polypropylene
Adapter Insert ( <i>where applicable</i> )		316 Stainless Steel
Standard 'O' Ring		Silicone/EPDM

### Maximum Differential Pressure

Normal Flow Direction at	20°C (68°F)	6.0 bar (87lb/in <sup>2</sup> )
	80°C (176°F)	4.0 bar (57lb/in <sup>2</sup> )
	100°C (212°F)	3.0 bar (43lb/in <sup>2</sup> )
	120°C (248°F)	2.0 bar (29lb/in <sup>2</sup> )
	125°C (257°F)	1.5 bar (22lb/in <sup>2</sup> )

Reverse Flow Direction at:	20°C (68°F)	2.1 bar (30lb/in <sup>2</sup> )
	80°C (176°F)	1.0 bar (15lb/in <sup>2</sup> )
	100°C (212°F)	0.5 bar (7lb/in <sup>2</sup> )

### Maximum recommended short term operating temperature 80°C (180°F)

### Sterilisation

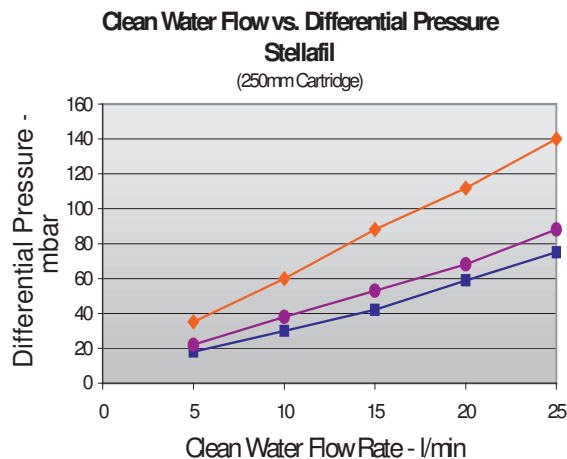
- In-line steam sterilisation – Cartridges can be repeatedly in-line steam sterilised or autoclaved up to 125°C (257°F) maximum.
- Hot water sanitation – Cartridges can be repeatedly hot water sanitised at 80°C (140°F)

### Validation Guide available on request

## Technical Data

### Cartridge Dimensions

Diameter	70mm	(2.8")
Length	125mm	(5")
	250mm	(10")
	510mm	(20")
	760mm	(30")
	1020mm	(40")



#### Test Conditions

Typical clean water flow rate – based on a 250mm (10") single cartridge Microfiltrex housing exhibiting the differential pressure characteristics indicated above, for solutions with a viscosity of 1 centipoise.

### Ihr zuständiger Distributor:



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