

Hydrofil™ Junior

Nylon 6.6 Membrane Cartridge Filters



Microbially rated cartridge filters featuring the latest developments in membrane technology, Hydrofil™ Junior cartridges, are based on a naturally hydrophilic nylon membrane.

Hydrofil™ Junior cartridges exploit the narrow pore size distribution and high void volume of the media to provide a choice of cartridges capable of meeting the requirements of most applications. Careful media selection ensures that Hydrofil™ Junior cartridges are very suited to critical particle control down to 0.1 micron ratings.

Hydrofil™ Junior cartridges benefit from high protein binding characteristics of nylon membranes and have excellent chemical compatibility characteristics. Hydrofil™ Junior cartridges provide a combination of features and benefits previously unavailable from cartridges based on PVDF, mixed esters of cellulose or polysulphone membranes.

Typical Applications

- Small-scale biopharmaceuticals: Bioburden reduction and clarification
- Electronics and semiconductors
- Small-scale fine chemicals
- Pilot-scale studies
- Beverages
- Point-of-use water supply
- Pure water supply (18MΩ.cm)

Ordering Information

Product Code: 1 H 2 3 4 5						
1: Configuration		2: Pore rating		3: Length		4: Seals (J/L Style)
J	J-Style	10	0.1µm	25	77.5mm (2.5")	A Ethylene Propylene
S	S-Style	20	0.2µm			B Silicone
L	L-Style	45	0.45µm	50	136mm (5")	C Viton®
						D Nitrile
						E FEP Encap. Viton®
						G FEP Encap. Silicone
						5: Additional
						P Pharma Grade

Specifications

Materials of Manufacture

Filter membrane:	Nylon 6,6
Membrane support:	Polypropylene
Irrigation mesh (support):	Polypropylene
Drainage layer:	Polypropylene
Inner core:	Polypropylene
Outer support:	Polypropylene
End fittings:	Polypropylene
Support ring:	Stainless steel

Cartridge Dimensions (Nominal)

Effective Filtration Area:	0.20m ² (2.15ft ²) per 5" length
Diameter:	56mm (2.2")
Length:	77.5mm (2.5") 136mm (5")

Cartridge Treatment

Standard:	Cleaned and flushed with pyrogen-free water
Rinsed:	Ultra-clean, pulse flushed to give a system resistivity of 18MΩ.cm

Gaskets and O-Rings

J-style:	Silicone (other materials are available on request)
S-style:	Not supplied
L-style:	Silicone (other materials are available on request)

Maximum Differential Pressure

Normal flow direction at:	
20°C (68°F):	6.0bar (87psi)
80°C (176°F):	4.0bar (58psi)
100°C (212°F):	3.0bar (44psi)
120°C (248°F):	2.0bar (29psi)
Reverse flow direction at:	
20°C (68°F):	2.1bar (30psi)
80°C (176°F):	1.0bar (15psi)
100°C (212°F):	0.5bar (7psi)

Operating Temperature

Maximum continuous:	60°C (140°F)
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Sterilisation

J-style:	In situ steam up to 40 x 25 minute cycles at 121°C (250°F)
S-style:	Autoclave up to 40 x 25 minute cycles at 121°C (250°F)
L-style:	In situ steam up to 40 x 25 minute cycles at 121°C (250°F)

Filtrate Quality

Cartridges have been validated to give high levels of effluent cleanliness, in accordance with USP guidance for:

- Total Extractables
- TOC & Conductivity
- Particulates & Non-Fibre Release
- Bacterial Endotoxins

Please refer to the Hydrofil™ Validation Guide for full supporting data.

Integrity Testing

Each Hydrofil™ Junior module of every cartridge is individually integrity tested using the Diffusive FlowTest, which correlates to the HIMA and ASTM F838-05 bacterial challenge tests. Non-destructive integrity tests, such as Pressure Hold, Diffusive Flow and Bubble Point, can be performed by customers. Please contact us for procedural details.