

Hall Pyke



Membrane Filtration

Aquafil™

The SMART choice for filtration

Aquafil™

Single Layer Polyethersulphone Membrane Cartridge Filters

A range of cartridge filters from Porvair Filtration Group, featuring the latest developments in membrane technology, Aquafil™ cartridges are based on a naturally hydrophilic polyethersulphone membrane with a mirrored asymmetric pore structure. When combined with quality all-polypropylene cartridge components and high integrity manufacturing techniques common to all Porvair cartridge filters, the polyethersulphone membrane provides a high strength, long life cartridge.

Features and Benefits

- **Removal ratings**
Aquafil™ cartridges are available in 0.2, 0.45, 0.65 and 1.2 micron.
- **Low protein binding**
Aquafil™ cartridges have excellent low protein binding characteristics, typically 10 times lower than nylon, 2 times lower than polysulphone and similar to PVDF.
- **Will not hydrolyse**
Compared with other membranes such as nylon, the polyethersulphone membrane used in Aquafil™ cartridges is extremely resistant to hydrolysis. Capable of exposure in excess of 2 years, they are ideal for hot deionised water applications.
- **Excellent chemical compatibility**
- **Suitable for steam sterilising**
- **Full traceability**
- **Controlled manufacturing environment**

Materials of Manufacture

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

Gaskets and O-Rings

FDA approved Ethylene Propylene, PTFE encapsulated, Silicone or Nitrile.

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 (43psi)
 120°C (248°F): 2.0bar (29psi)

Operating Temperature

Maximum continuous: 60°C (140°F)

Sterilisation

In situ steam 80 x 20 minute cycles at 125°C (257°F).
 Hot water 100 x 20 minute cycles at 85-90°C (185-194°F).

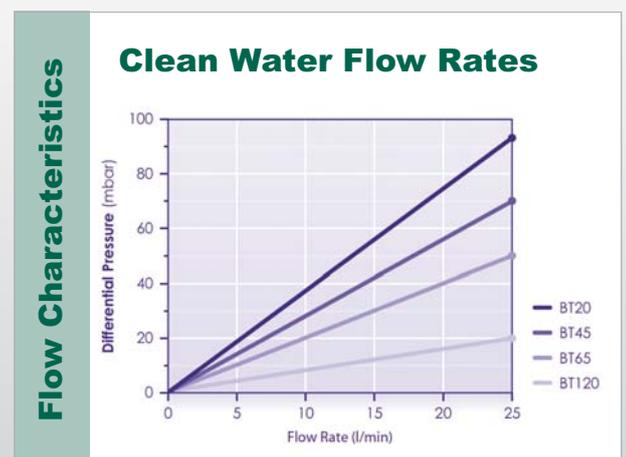
Effective Filtration Area

Pore Size Rating	Effective Filtration Area (each 254mm (10") module)
0.2, 0.45, 0.65 and 1.2µm	0.69m ² (7.4ft ²)



Applications

- **Pure water supply**
For use in de-mineralised and de-ionised water treatment systems for bioburden reduction in recirculating systems.
- **Biopharmaceuticals**
- **Ophthalmic solutions**
- **Electronics and semiconductors**
For the sub-micronic filtration of process water and chemicals, including solvents, developers and photoresists. Applications typically include central water plant treatment.
- **Fine chemicals**
- **Beverages**



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