

Aquasart® PS

Membrane Filter Cartridge
for the Food & Beverage
Industry



Product Information

Aquasart® PS filter cartridges are integrity testable membrane filters especially developed for filtration of water in the Food & Beverage Industry. They are characterised by a unique hydrophilic Polyethersulfone membrane offering a broad chemical compatibility, exceptional high flow rates and total throughputs and highest microbiological safety.

Applications

Aquasart® PS filter cartridges can be used especially in applications which require a chemical disinfection or cleaning with caustic or acid, due to the broad chemical compatibility from pH 1 to pH 14.

Total Throughput

The asymmetric pore structure of the Polyethersulfone membrane of the Aquasart® PS filter cartridges provides outstanding total throughputs and high flow rates. Economic system design for filtration processes is assured. The total throughput of the final filters can be significantly increased by an optimised prefilter system reducing the filtration costs overall.

Flow Rates

The high effective filtration area of Aquasart® PS filter cartridges allows highest flow rates and economic filtration system design.

Stability

Aquasart® PS filter cartridges withstand more than 5.000 pulsation cycles with differential pressure up to 5 bar|75 psi and multiple steam sterilisation cycles up to 134°C without loss of filter integrity.

Safety

Aquasart® PS filter cartridges guarantee highest microbiological safety, which can be checked before and after every use with an integrity test.

Quality Control

Each individual element is tested for integrity during production by Bubble-Point and Diffusion-Test assuring highest product quality.

Documentation

Aquasart® PS filter cartridges are designed, developed and produced under a ISO 9001 certified Quality Management System. A Validation Guide is available.

Technical Data

Specifications

| Materials | |
|------------|--|
| Membrane | Highly asymmetric, single layer, hydrophilic Polyethersulfone membrane |
| Fleeces | Polypropylene |
| Outer Cage | Polypropylene |
| Inner Core | Polypropylene |
| Endkaps | Polypropylene |
| O-Rings | Silicone |

Pore Size

0.2 µm

Available Sizes | Filtration Area

| | | |
|--------|-----|------------------------------|
| Size 1 | 10" | 0.7 m 7.5 ft ² |
| Size 2 | 20" | 1.4 m 15.0 ft ² |
| Size 3 | 30" | 2.1 m 22.6 ft ² |
| Size 4 | 40" | 2.8 m 30.1 ft ² |

Available Adapters

21, 25, 27, 28

Operating Parameters

| | |
|--------------------------------------|--|
| Max. Allowable Differential Pressure | 5 bar (72.5 psi) at 20°C 2 bar (29 psi) at 80°C |
| Max. Allowable Back Pressure | 2 bar (29 psi) at 20°C |
| Sterilisation | Hot Water 85-95°C, 30 min, Δp max. 0.5 bar 7 psi In-Line-Steaming at 110°C, 30 min, Δp max. 0.5 bar 7 psi |
| Steaming cycles | min. 100 |

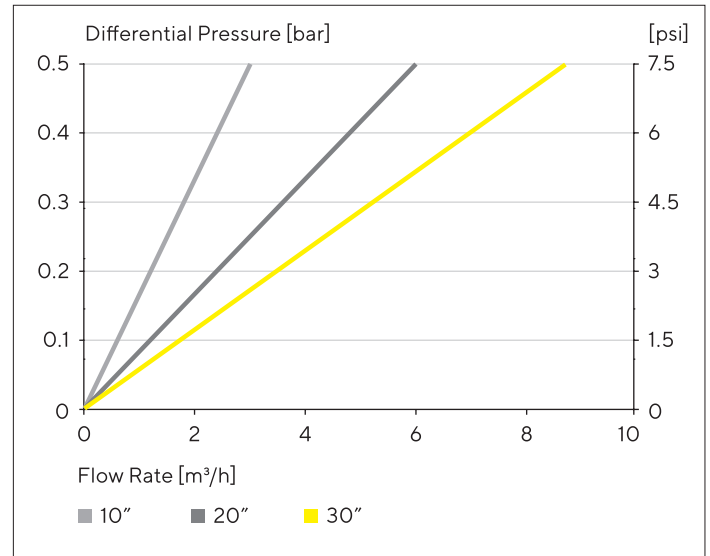
Compatibility

Aquasart® PS filter cartridges fulfill all requirements of the current USP for “Sterile Water for Injection”. This includes testing for Toxicity according to USP Plastic Class VI Test including Extractables.

Aquasart® PS filter cartridges are fully suitable for use in the Food & Beverage Industry. pH-Compatibility: pH 1 to pH 14.

Aquasart® PS filter cartridges are free of pork DNA and drinkable alcohol.

Water Flow Rates for 10”, 20” and 30” Cartridges



Ordering Information

Integrity Test Data for Aquasart® PS Filter Cartridges

| Order Code | Pore Size [µm] | Filtration area [m²] | Min. B.P. [bar psi] | Test Pressure [bar psi] | Max. Diffusion [ml/min] |
|------------|----------------|----------------------|-----------------------|---------------------------|-------------------------|
| 541**07A1 | 0.2 | 0.7 | 3.2 46 | 2.5 36 | 21 |
| 541**07A2 | 0.2 | 1.4 | 3.2 46 | 2.5 36 | 42 |
| 541**07A3 | 0.2 | 2.1 | 3.2 46 | 2.5 36 | 63 |
| 541**07A4 | 0.2 | 2.8 | 3.2 46 | 2.5 36 | 84 |

Test Limits for max. Pressure Drop depend on the installation and need to be determined individually.

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