



Donaldson.
FILTRATION SOLUTIONS

Process Filtration From Pure to Sterile

(P)-SM N

MAIN FEATURES & BENEFITS:

- High dirt holding capacity at low differential pressure and high flow rate
- Highly durable stainless steel design
- Regenerable by ultrasonication or backflushing
- For the filtration of air and liquids
- Approved for Food Contact Use acc. to CFR Title 21 & 1935/2004/EC



INDUSTRIES:



- Chemical Industry



- Food & Beverage



- Paint



- Environmental Industry



- Pharmaceutical Industry

Donaldson[®]
Ultrafilter

PRODUCT DESCRIPTION

The (P)-SM N filter element consists of a regenerable, pleated filter matrix with stainless steel outer guard and end caps. The retention rate extends from 1 µm absolute up to 250 µm absolute in water.

The (P)-SM N filter element offers an exceedingly economical pre- and final filtration, where the stainless steel filter matrix can be regenerated by ultrasonication or backflushing. This is especially important at higher particle loads.

The heavy-duty construction of the (P)-SM N filter is also suitable for high-viscosity liquids and can withstand a differential pressure of up to 5 bar (flow from outside to inside). In addition, the filter can be used for temperatures up to 150°C, with welded end caps up to 200°C.

All components meet the USA/EU requirements for Food Contact Use in accordance with CFR (Code of Federal Regulations) Title 21 and EC/1935/2004. The filter element is manufactured in accordance with the manufacturing requirements, has no migration of filter media and is non-fibre releasing.

The (P)-SM N stainless steel filter is designed and developed for the following applications:

Liquid Filtration

- Water filtration
- Chemicals
- Solvents
- Pharmaceutical industry
- Food and beverage
- Syrup
- Cosmetics
- Paints
- Salt- and Seawater
- Coolants

Gas Filtration

- Compressed air
- Carbon dioxide
- Nitrogen
- Tank Ventilation
- Highly aggressive gases

Steam Filtration

PRODUCT SPECIFICATIONS

Product Specifications

Filtration Surface:

- 0,22 m² per 250 mm element (10")
- For other element sizes see correction factor CF in section "Available end cap configurations"

Temperature Range:

- -50°C (-60°F) to 200°C (400°F)
- > 150°C (300°F) welded end caps only

Maximum Differential Pressure:
(Flow Direction: Outside to Inside)

- 5 bar (75 psid), independent of the system pressure or temperature

RETENTION RATES

Filter Rating (water)

	1 µm	5 µm	25 µm	50 µm	100 µm	250 µm
Nominal (~ 98 %)	0,6µm	4 µm	15 µm	40 µm	60 µm	200 µm
Absolute (> 99,98 %)	1 µm	5 µm	25 µm	60 µm	100 µm	250 µm

Retention Rates (Air, 20 °C, 90 Nm³/h, 10/30 Element)

Pore Size [µm]	98 % [µm]	>99,9 % [µm]	Thickness [mm]
1	0,1	< 1	0,37
5	1	< 5	0,35
25	15	25µm	0,17

MATERIAL COMPLIANCE USA

All components of the (P)-SM N filter element are FDA listed for food contact use in the Code of Federal Regulations (CFR), Title 21.

Filter Materials	CFR Title
Filter Matrix:	Stainless Steel 1.4301 211.65
End Caps:	Stainless Steel 1.4301 211.65
Bonding Materials:	Silicone 177.2600
O-Rings:	EPDM 177.2600
Alternatively:	Silicone 177.2600
	Buna 177.2600
	EPR 177.2600
	PTFE over silicone 177.1550
	PTFE over viton 177.1550

All products have been inspected and released by Quality Assurance as having met the following requirements:

- All filters are fabricated without the use of binders, adhesives, additives or surface-active agents.
- All filter components based on plastics are non-toxic and are certified bio-safe in accordance with current USP Class VI Tests for Plastic.

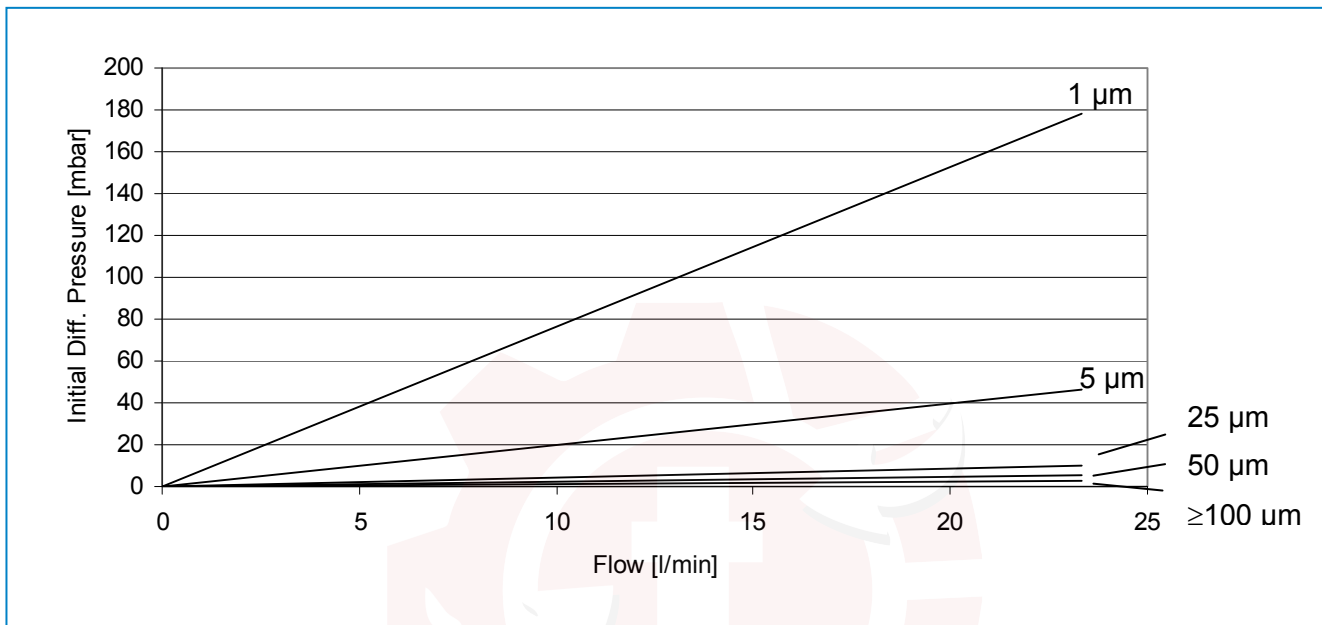
MATERIAL COMPLIANCE EU

The Donaldson (P)-SM N filter element meets the guideline for direct Food Contact Use as given in European Regulation 1935/2004/EC.

For specific details on the O-rings, please contact your Donaldson Sales Engineer.

FLOW CHARACTERISTICS

(P)-SM N, 10", Deionised water, 25°C



(P)-SM N, 10", air, 25°C, 1 bar absolute

