

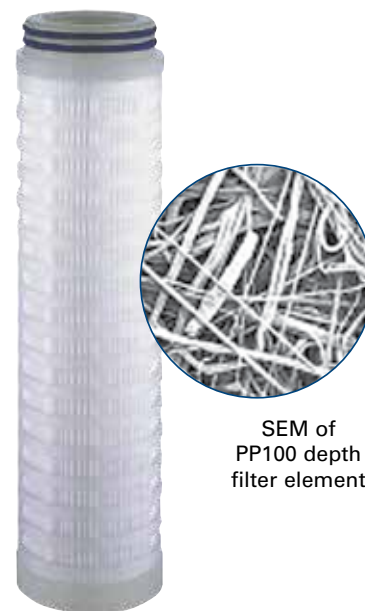
Depth filter elements for particle removal from aqueous solutions, water and gases with an absolute retention rate. Donaldson® PP100 depth filter elements are pleated all-polypropylene filters with an absolute retention rate between 0.45 µm and 40 µm.

All components meet the FDA requirements for the contact with food in accordance with CFR (Code of Federal Regulations) Title 21. Donaldson PP100 depth filters have passed the USP Class VI tests for plastics and are manufactured in accordance with cGMP requirements (current Good Manufacturing Practice), have no migration of filter media, are non-fiber releasing, and thermally welded without the use of binders or other chemical additives. The depth filter is prerinsed with 18 MΩ · cm water, which leads to extremely low extractables.

APPLICATIONS

PP100 depth filter elements are designed and developed for the following industries and applications:

- Food and beverage
- Particle removal from water
- Chemicals
- Pulp and paper
- Biological liquids
- Pharmaceuticals
- Cosmetics
- Oils
- Paints and dyes
- Coatings
- Saltwater, seawater
- Coolants
- Polymers
- Photolithographical liquids



SEM of
PP100 depth
filter element

PP100 - ABSOLUTE POLYPROPYLENE

FEATURES	BENEFITS
All-polypropylene construction	Wide chemical durability against numerous gases and liquids
Absolute particle removal from 0.45 µm to 40 µm	Precise particle retention at rated level, greater selection of optimum filter media
Tapered pore structure	Higher dirt holding capacity, larger throughputs, longer service life
Self-bonded filter media	Fixed pore structure, high containment of solid materials, no migration of filter media, non-fiber releasing
Contains no binders or adhesives	Wide solvent compatibility, extremely low extractables, rinsed with 18 MΩ · cm water
Maximum effective surface area	Reduced pressure loss, high flow rates
Biologically inert and non-toxic	Meets FDA requirements for food contact, passed USP class VI biological tests for plastics

DIMENSIONS & SPECIFICATIONS

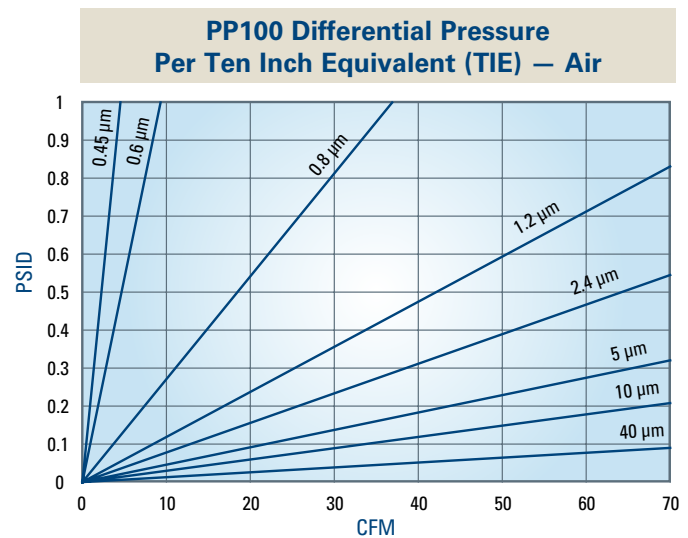
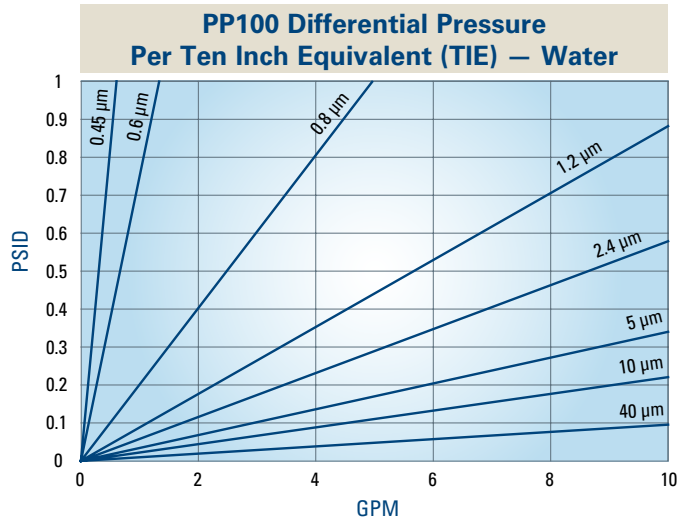
MATERIALS	
Filter Media	Polypropylene
Upstream support	Polypropylene
Downstream support	Polypropylene
Outer guard	Polypropylene
End Caps	Polypropylene
O-Rings	EPDM (alternate materials available upon request)

DIMENSIONS	
Diameter	2.75"
Length	10", 20", 30" or 40"
ABSOLUTE RETENTION RATE	
0.45 µm, 0.6 µm, 0.8 µm, 1.2 µm, 2.4 µm, 5 µm, 7 µm, 10 µm, 20 µm, 30 µm, 40 µm	
FILTRATION SURFACE	
5.4 ft² for 10" element (10/30)	

MAXIMUM DIFFERENTIAL PRESSURE	
Operating Temperature	Differential Pressure
100°F	80 psid
150°F	60 psid
180°F	30 psid

STERILIZATION	
In-line sterilization with slow speed saturated steam	250-275°F for 30-60 minutes
Autoclave	260°F for 30-60 minutes
PP100 depth filter elements are capable of repeated sterilization cycles	

PARTICLE RETENTION			
PP100	Percent Removal		
µm	100%	99%	90%
0.45	0.45	0.40	< 0.30
0.6	0.60	0.56	0.38
0.8	0.80	0.72	0.50
1.2	1.20	1.10	0.70
2.4	2.40	2.30	2.00
5	5.00	4.50	3.00
7	7.00	6.50	5.00
10	10.00	9.50	7.50
20	20.00	19.00	12.00
30	30.00	26.00	16.00
40	40.00	35.00	28.00



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