

ABSOLUTE PP MEMBRAN PROTECT

Dedicated pre-filter for membrane protection

Technical characteristics

- Pre-filter ideal for the protection of the final membranes
- Removal of contaminants before the final filter, to extend the life of the membrane filter cartridges
- 0.4 μm porosity with absolute particle degree β 5000
- Polypropylene six-layer graduated density structure
- Reduction of filtrability indexes
- Wide compatibility with regenerating and sanitizing products
- Food grade
- Configuration suitable for frequent chemical regeneration

Retention efficiency

Particle removal efficiency is established with the Beta ratio (β):

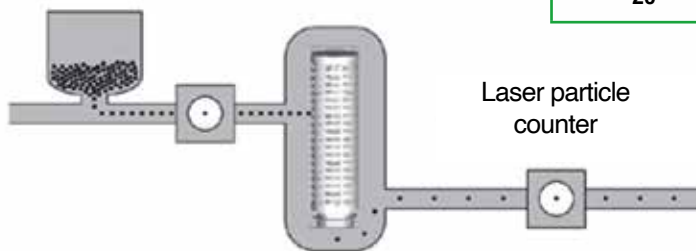
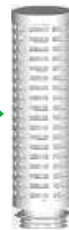
$$\beta = \frac{\text{Number of particles upstream of filter}}{\text{Number of particles downstream of filter}}$$

The **ABSOLUTE PP MEMBRAN PROTECT** filter cartridges are all validated with β -ratio 5000 efficiency, which corresponds to a 99.98% particle retention.

DOWNSTREAM PARTICLES	RATIO	β	EFFICIENCY
50.000	$\frac{100.000}{50.000}$	2	50%
5.000	$\frac{100.000}{5.000}$	20	90%
1.000	$\frac{100.000}{1.000}$	100	95%
100	$\frac{100.000}{100}$	1.000	99,9%
20	$\frac{100.000}{20}$	5.000	99,98%

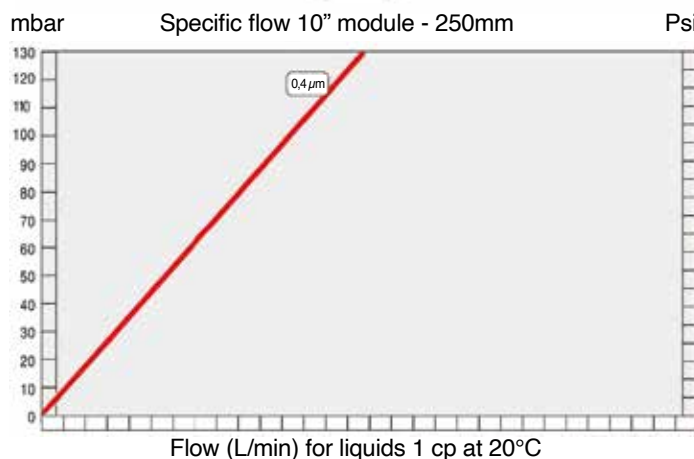


UPSTREAM PARTICLES = 100.000 units



Validation

The particulate retention efficiency of the **ABSOLUTE PP MEMBRAN PROTECT**, filter elements is randomly tested, by performing a destruction filtration test, with a suspension of ACFTD (AC Fine Test Dust) standard particles and using in-line laser particle counters, according to ISO 4572 procedure.



■ 0,4 μm

Construction materials

Filter plate	Pleated heat-sealed polypropylene, scalar porosity
Support and drainage layers	Polypropylene microfiber
Internal and external cage	Polypropylene
Terminal supports	Polypropylene
Standard 'O' rings	Silicone
Material coupling	Thermowelding

Operational data

Filter surface	0,6 m ² (6,5 ft ²) for a 250 mm module (10")
Max operating temperature	80°C
Max Δp operating at 20°C	5 Bar (72,5 Psi)
Max Δp at 121°C with steam	0,3 Bar (4,3 Psi)

Regeneration and hygienization

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PROTECT filter elements can be repeatedly regenerated also in backflush, with hot water max 80°C, sterilized with steam up to 121°C.

They can also be used in hot caustic cycle, even with peroxide.

