

### 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 e ciency

Particle removal e ciency is established with the Beta ratio (ß):

B<sub>=</sub>

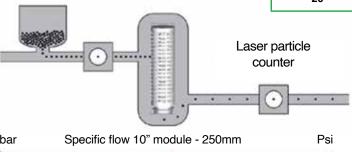
Number of particles upstream of filter

Number of particles downstream of filter

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



DOWNSTREAM PARTICLES	RATIO	ß	EFFICIENCY
50.000	100.000 50.000	2	50%
5.000	100.000 5.000	20	90%
1.000	100.000 1.000	100	95%
100	100.000 100	1.000	99,9%
20	100.000 20	5.000	99,98%



# mbar Specific flow 10" module - 250mm Psi 130 120 100 90 80 70 60 50 10 Flow (L/min) for liquids 1 cp at 20°C

#### **Validation**

The particulate retention
e ciency 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





Terminal with no internal cavity.

Weldings made for heavy duty applications, with high temperature and pH excursions.

The tolerance between cage and pleated filter plate allows dilatation during thermal excursions.



Detail of the welding, excluding "traps" or fluid retention, dangerous for process filtration.



Construction suitable for backflush regeneration.



The inox ring is a reinforcement to maintain the joint size stable, it is separable for disposal.



#### **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 <sup>2</sup> (6,5 ft <sup>2</sup> ) 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

**ABSOLUTE PP MEMBRAN** 

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.