

ABSOLUTE PP

Pleated plate in heat-sealed polypropylene

Technical characteristics

- Thermo-welded polypropylene filter media, with no electric charge
- Porosity 0.6 - 1 - 3 - 5 - 10 - 20 μm , with absolute particle degree β 5000
- 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** filter cartridges are all validated with β 5000 efficiency, which corresponds to a 99.98% particle retention.

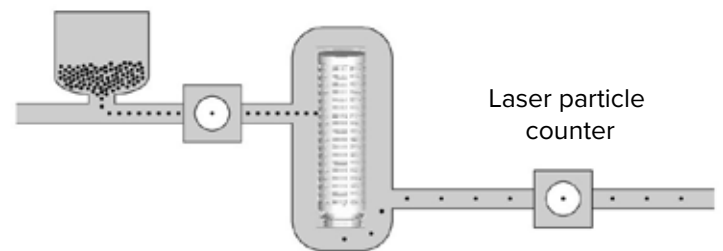
UPSTREAM PARTICLES = 100.000 units



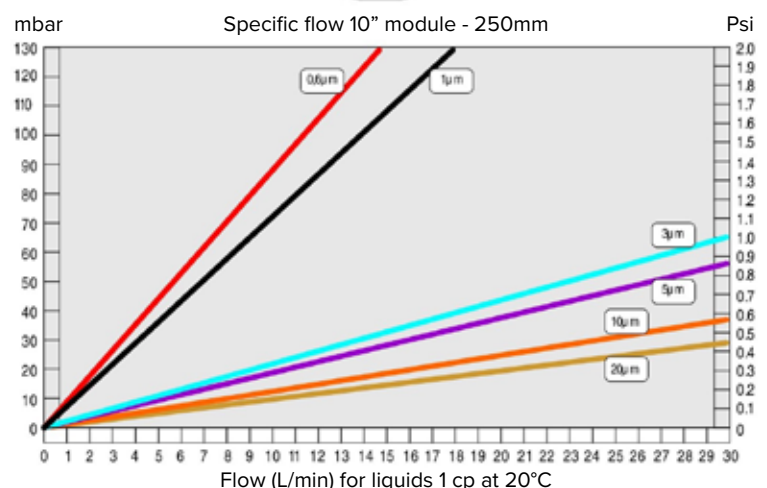
DOWNSTREAM PARTICLES	RATIO	β	EFFICIENCY
50.000	$\frac{100.000}{50.000}$	2	50%
5.000	$\frac{100.000}{5.000}$	20	95%
1.000	$\frac{100.000}{1.000}$	100	99%
100	$\frac{100.000}{100}$	1.000	99,9%
20	$\frac{100.000}{20}$	5.000	99,98%

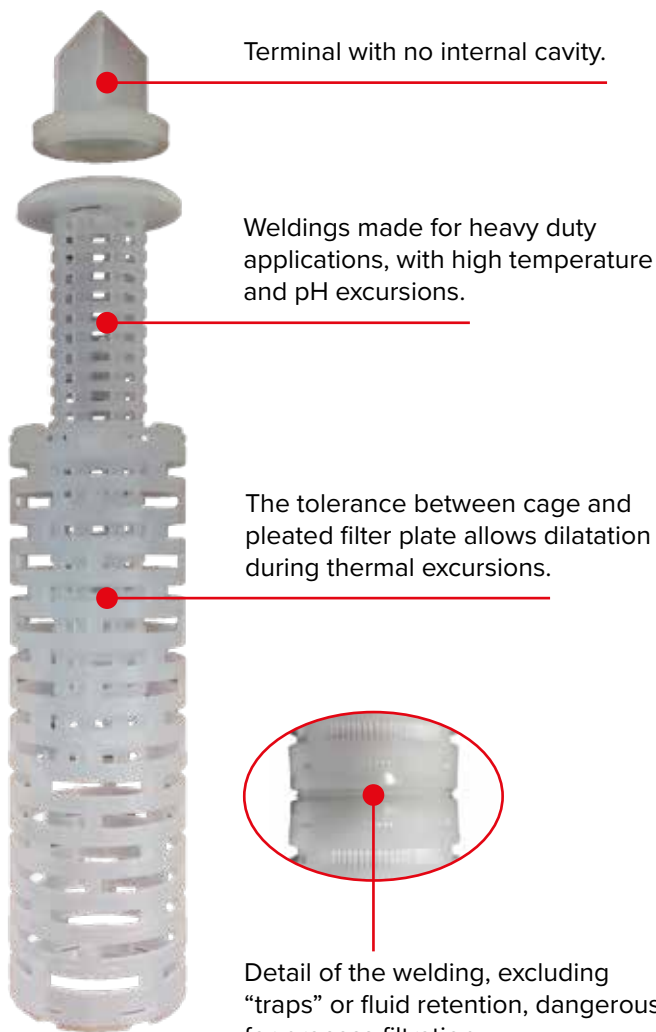
Validation

The particulate retention efficiency of the **ABSOLUTE PP** 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.



- 0.6 μm
- 1 μm
- 3 μm
- 5 μm
- 10 μm
- 20 μm



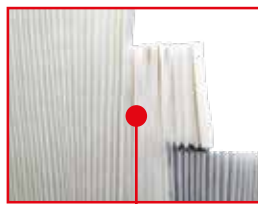


Terminal with no internal cavity.

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	From 0.45 m ² (4,8 ft ²) to 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

- **ABSOLUTE PP** 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.