



# Profile Star filters

USD1373b<sup>2</sup>

**Absolute-rated  
pleated depth  
filters combining  
long service  
life and high  
flow rates**



## Description

To keep pace with advancing technologies, Pall continues its tradition of filtration innovations with the 'Profile' Star filter: a state-of-the-art concept for pleated polypropylene filters. This major development in filter technology incorporates the proven successes of the 'Pall' **Profile II** depth filters and 'HDC' II pleated filters to provide a unique *absolute rated pleated depth filter*. The proven and successful Pall technique of varying the fibre diameter produces a pore size gradient from coarse (upstream) to fine (downstream) while maintaining constant high void volume throughout the depth of the filter medium. **Profile Star** filters offer longer life than many competitive pleated filters. Due to their proprietary construction, **Profile Star** filters deliver the benefits of both traditional pleated polypropylene and depth style filters - the ideal combination. The pressure drop and flow capability is comparable to competitive pleated polypropylene filters whilst also providing excellent removal of soft contaminant, such as gels, because of the depth of the medium.

**Profile Star** filters are available in absolute removal ratings from 1.5µm to 90µm and in four nominal cartridge lengths: 254mm, 508mm, 762mm and 1016mm. Their all-polypropylene construction makes them compatible with an extremely wide range of fluids. Cartridges are also available in a 'P' grade which is optimised for pharmaceutical applications.

## Features & benefits

### Absolute rated

- 100% efficient removal rating
- Consistent, verifiable filtration

### Pleated high area

- Extraordinarily high dirt holding capacity
- Long service life
- High flow rates
- Excellent gel removal capability

### Fixed pore structure

- No solids unloading under variations in flow or pressure differential
- Fibres will not migrate or become dislodged and contaminate the process fluid

### All-polypropylene construction

- Extremely good chemical compatibility with a wide range of fluids
- Very low extractables
- No surfactants or binder resins are used during manufacture
- Continuous construction without side seam
- Media melt-sealed to solid components to ensure maximum integrity

### 'P' optimisation for pharmaceuticals

- All materials of construction are FDA listed
- All polypropylene components have been tested according to U.S.P. class VI biological tests for plastics at 121°C
- Batch traceable
- Statistical testing of filter effluent for:
  - particle and fibre counts
  - Total Organic Carbon (TOC)
  - pyrogens using LAL test
  - pH shift test

# Technical Information

## Operating characteristics

Maximum operating differential pressures and temperatures in compatible\* liquids

Maximum operating temperature	Maximum differential pressure
50°C	5.0 bar
80°C	3.4 bar

\*Fluids which do not soften, swell or adversely affect the filter or materials of construction.

Steam sterilising temperature (in-situ or autoclave)	Cartridge style
125°C	AB Code 3 'P' grade, AB Code 7

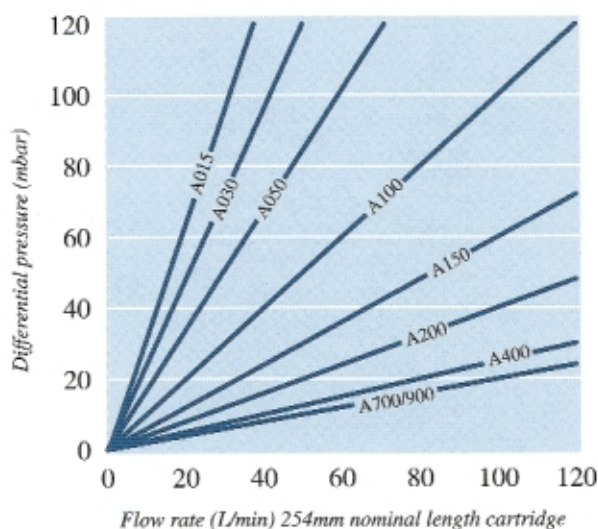
Maximum recommended cumulative steam life at 125°C	
	10 hours

Note: Differential pressures are for liquids with a viscosity of 1 centipoise (cP).

Differential pressures for liquids at other viscosities can be conservatively estimated by multiplying the indicated differential pressure by the viscosity in cP.

For cartridges of 508mm, 762mm and 1016mm nominal length, divide the differential pressure by 2, 3 and 4 respectively. To obtain the total pressure drop of a complete filter assembly the housing pressure drop must be added. Please refer to the relevant housing literature or contact Pall.




## Liquid flow vs. differential pressure



## Ordering information

**1000 style** Double open-ended 70mm diameter element with gaskets on both ends. Sealing is assured by using a tie rod and seal nut.

### MCY 100

Code	Nominal length	Code	Absolute removal rating*	Code	Type of application	Code	Gasket option	Cartridge sealing arrangements		
1	254mm			P	Pharmaceutical	H4	Silicone	1000 style	AB style	
2	508mm	A015	1.5µm†	Omit	Other	J	Ethylene propylene		70mm diameter	70mm diameter
3	762mm	A030	3µm				Other materials are available on request			
4	1016mm	A050	5µm					Flat gasket seal	Code 7	Code 3
		A100	10µm						Double O-Ring seal	
		A150	15µm							
		A200	20µm							
		A400	40µm							
		A700	70µm							
		A900	90µm							

**AB style** Single open-ended element with external O-rings at one end.

### AB

Code	Nominal length	Code	Absolute removal rating*	Code	Cartridge style	Code	Type of application	Code	O-ring option
1	254mm			3	Pall Code 3 double O-ring with flat end 70mm diameter	P	Pharmaceutical	H4	Silicone
2	508mm	A015	1.5µm†			Omit	Other	J	Ethylene propylene
3	762mm	A030	3µm						Other materials are available on request
4	1016mm	A050	5µm	7	Pall Code 7 double O-ring with bayonet lock and finned end 70mm diameter				
		A100	10µm						
		A150	15µm						
		A200	20µm						
		A400	40µm						
		A700	70µm						
		A900	90µm						

\*Absolute rating in this publication means the value in microns at which the modified OSU-F2 test gives a Beta value of >5000.

(See Pall publication SD1329).

†Extrapolated value



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