



StarFine

Pleated filter elements



StarFine, is not only the best choice for a good protection of membrane filter elements, the large filter area guarantees high dirt capacity and consequently a long life. A wide choice of filter media is available to make it suitable for several process applications.

End-Cap configurations:

- **A1** = Double open ended with flat gaskets
- **C8** = O.R. 2-222 + capped - flat
- **P8** = O.R. 2-222 + capped with spear
- **C7** = O.R. 2-226 + bayonet - capped flat
- **P7** = O.R. 2-226 + bayonet - capped with spear

Standard nominal lengths:

- 1 = 10" = 250 mm
- 2 = 20" = 500 mm
- 3 = 30" = 750 mm
- 4 = 40" = 1000 mm

Structure materials:

- **outer cage:** polypropylene
- **inner core:** polypropylene
- **end-caps:** polypropylene

All **StarFine** filter elements are provided with a multi-layer filter media with thermo-bonded fibres to prevent fiber release and contaminant downloading, most of them take advantage of polypropylene melt-blown microfibers to enhance filtration efficiency on very small particles.

The range comprehends also two borosilicate (glass fiber) and two polyester filter media. Borosilicate has a natural charge (Z potential) to capture organic matter, while polyester guarantees high permeability when only large particles have to be captured.

Main applications

- Sugar solution
- Trap filters in breweries
- Filtration and/or pre-filtration of wine
- Rinse water
- Spirits
- Milk
- Demineralised water
- Fluids of ultra-sonic cleaning systems
- Tank venting
- Moisture in air

CARTRIDGE CODE SELECTION

StarFine
10 times the filter area of a conventional non-pleated element

Series Identification	Filter media Material and Micron rating	Outer Cage	Cartridge Length	End-Cap # 1	End-Cap # 2	Gasket Material
StarFine = SF	Please select from Table 1	None = - Extruded = Z Moulded = K	10" = 1 20" = 2 30" = 3 40" = 4	Open = A Capped = C Spear = P	Open = 1 O.R. 2-222 = 8 O.R. 2-226 = 7	Buna = N Viton = V Silicone = S EPDM = E PTFE = T
SF	Y50	K	3	P	8	S

Table 1 - Standard filter media

Filter media code	Material	Filter area	Particles removal in liquids		
			Nominal $\beta = 10$	Nominal $\beta = 100$	Absolute $\beta = 1000$
Y80	polyester	0.70 m ²	55*	68*	80*
Y50	polyester	0.65 m ²	25	35	50
M25	polypropylene	0.60 m ²	10	15	25
M15	polypropylene	0.50 m ²	5	12	15
M8	polypropylene	0.50 m ²	3	5	8
M3	polypropylene	0.50 m ²	0.6*	1.5*	3
M1	polypropylene	0.50 m ²	0.45*	0.8*	1*
M06	polypropylene	0.50 m ²	0.2*	0.4*	0.6*
G1	borosilicate	0.50 m ²	0.45*	0.8*	1*
G06	borosilicate	0.50 m ²	0.2*	0.4*	0.6*

* - Extrapolated value

Table 2 - Sterilization

Method	Filter media material		
	polyester	polypropylene	borosilicate
hot water max 80°C (*)	good	good	good
caustic soda max 80°C (*)	max conc. 3%	max conc. 30%	max conc. 3%
in line steam max 120°C (*)	good	good	good
sodium hypochlorite - cold	max conc. 5%	max conc. 5%	max conc. 10%
autoclave 120°C	good	good	good

(*) - Due to the elongation, cartridges with A1 configuration could stand a temperature of 40°C in line, while they can withstand 120°C in autoclave as well as the other configurations

Definition of "Beta ratio"

The value of "B" for a given particle size (x) is the result of the following ratio:

$$\beta(x) = \frac{\text{n}^\circ \text{ of particles with size } >x \text{ up-stream}}{\text{n}^\circ \text{ of particles with size } >x \text{ down-stream}}$$

The relation between Beta ratio and efficiency, is as follows:

$$\text{Eff.}\% = \left(1 - \frac{1}{\beta}\right) 100$$

End-Caps configuration

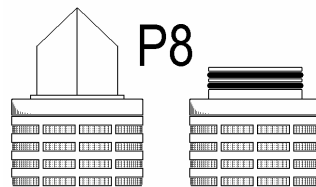
A1



C8



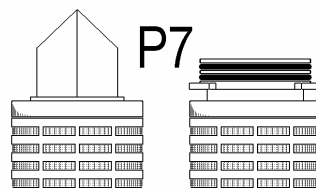
P8



C7



P7



Water flow-rate for a 10" module

