

BIODENE

High performance Hydrophilic PVDF



- Easy integrity testable in situ
- Repeatedly steamable in situ and in autoclave
- Thermowelded construction
- EC-listed materials for Food contact
- FDA-listed materials per 21 CFR
- Bio-Safety per USP—Plastics

The new BIODENE filter element is a perfect combination between the PVDF membrane with enhanced hydrophilic characteristic and the polypropylene stratification with its high mechanical resistance. The BIODENE filter element has been designed to meet the high standard quality and safety requirements for the most critical application of oenology and beverages applications. This filter element assures the microbiology stability and remove all the contaminants not welcome during the bottling activity, keeping the original color, flavor and scent of the filtered product. The controlled porosity together with the high resistance to heat sterilization, the chemical compatibility and the resistance to mechanical strengths are the highlights of this new filter elements series. Its enhanced service life and the easy regenerations activity even using soda, contributes to a great cost reduction specially when treating fluids with high colloidal burden. Typical applications are all the soft drinks, water, wine, cider and raw beer. The manufacturing is performed in a controlled environment; all the filter elements are 100% integrity tested and verified in production. The filter element is available in 0.2 , 0.45 and 0.65 micron configuration.

MATERIALS OF CONSTRUCTION

Filter media	Hydrophilic PVDF
Upstream supports	polypropylene
Downstream supports	polypropylene
Internal Core	polypropylene
External Cage	polypropylene
End caps	polypropylene

FOOD-SAFETY

BIODENE filter element materials meet (EU) regulation 10/2011 and its amendments, regulations (EC) 1935/2004 and 1895/2005.

BIO-SAFETY

Filter media and components pass USP CLASS VI Biological Reactivity and Chemical-Physical tests for USP plastics.

QUALITY STANDARDS

Produced under a certified Quality System to guarantee traceability of manufacturing records and integrity testing results.

RECOMMENDED OPERATING CONDITIONS

max. continuous temperature	85°C (185°F)
max. cumulative time of steam sterilization	80 hrs at 125°C (257°F) cycles of 60 min > 100 hrs at 121°C (250°F)
sanitization with hot water	90°C (194°F) max
sanitization with chemicals	Can be sanitized by standard chemical agents
max. differential pressure	5,0 bar (72,5 psi) at 25°C (77°F)—2,5 bar (36,26 psi) 80°C (176°F)
recommended change out differential pressure	2,0 bar (29 psi) at 25°C (77°F)
regeneration	NaOH solution up to 2% at 80°C (176°F)

CODE	ABSOLUTE FILTRATION RATING IN LIQUIDS	MAX. DECAY VALUE *	ACCEPTABLE LIMIT FOR DIFFUSION FLOW TEST WITH WATER FOR 10" CARTRIDGE (ml/min)
		8 of 30" CARTRIDGES	
BSY	0,2 µm	≤ 0,12 bar (1,74 psi)	≤ 25 @ 1,6 bar (23,2 psi)
BST	0,45 µm	≤ 0,12 bar (1,74 psi)	≤ 25 @ 1,2 bar (17,4 psi)
BSK	0,65 µm	≤ 0,11 bar (1,6 psi)	≤ 22 @ 0,9 bar (13 psi)
BSF	1,0 µm	≤ 0,10 bar (1,45 psi)	≤ 20 @ 0,5 bar (7,26 psi)

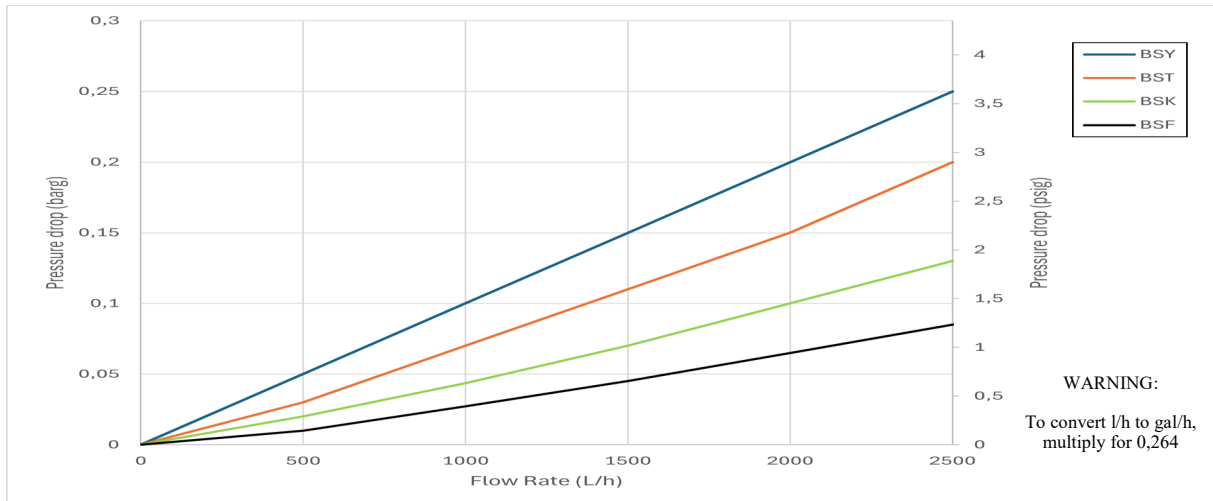
* The values are related to 5 minutes and are indicative as they depend on the housing volume upstream the filter element.

BACTERIAL RETENTION

CODE	FILTRATION RATING	*BACTERIAL RETENTION > 10 ⁷ per cm ²
BSY	0,2 µm	Pseudomonas aeruginosa / Escherichia coli / Enterobacteriaceae
BST	0,45 µm	Oenococcus oeni/ Saccharomyces cerevisiae / Brettanomyces bruxellensis / Lactobacillus brevis / Oocystes cryptosporidium / Giardia / Pedicoccus damnosus
BSK	0,65 µm	Saccharomyces cerevisiae/ Brettanomyces bruxellensis
BSF	1,0 µm	Saccharomyces cerevisiae/ Brettanomyces bruxellensis (10 ⁶ per cm ²)

* Secondo ASTM F838

WATER FLOW RATE CURVES FOR 10" ELEMENT



BIODENE ORDERING INFORMATION

B D P - 207 1 - BSY -

BQ - SB -

CODE	END CAP AND SUPPORT
P	Polypropylene

ABSOLUTE FILTRATION RATING	CODE
0,2 µm	BSY
0,45 µm	BST
0,65 µm	BSK
1,0 µm	BSF

CODE	GASKETS	
No code	Standard	Silicone
E	On request	EPDM
V	On request	VITON

CODE	PACKING TYPE
SB	Single box

END FITTING	CODE
SOE: open end with (2) O-Ring 2.222. Blind end with flat top.	203
SOE: open end with (2) O-Ring 2.226 and 2 bayonet locks. Blind end with fin.	207
SOE: open end with (2) O-Ring 2.222. Blind end with fin.	208

CODE	NOMINAL LENGTH
1	10"
2	20"
3	30"
4	40"

CODE	PRODUCT GRADE
BQ	Biological Grade; tested and prefluxed. Quality Certification in the box.
GG	General Grade not prefluxed

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The data are informative and subject to change without notice. User is responsible for determining whether the product is fit for particular purpose and suitable for User's method of application.