

Cartridge filtration

BECO PROTECT TS

1 A 4.3.9 · EB
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The Innovative Depth Filter Cartridge Solution



The unique BECO PROTECT TS depth filter cartridge combines two filter cartridge elements, thus offering significantly greater filter surface area with fine filter material. This innovation leads to lower blocking tendency, resulting in twice the filter service life compared with conventional standard filter cartridges.

Depth filter cartridges from the BECO PROTECT TS range are used in a variety of applications in the beverage and food industry.

Characteristics and Advantages

The specific advantages of BECO PROTECT TS:

- ▶ Filter service life doubled
- ▶ 100 % more filter surface area with fine filter material
- ▶ Higher throughput at lower differential pressure
- ▶ Substitute for more expensive pleated depth filter cartridges, hence better cost-effectiveness
- ▶ Safe (absolute) and gentle filtration
- ▶ High dirt holding capacity
- ▶ Back-washable up to 2 bar (29 psig) at 80 °C (176 °F)
- ▶ High chemical resistance due to 100 % polypropylene

Technical Data

Diameter	70 mm (2.75 in)
Maximum operating temperature	80 °C (176 °F)
Maximum pressure difference in flow direction	4.8 bar (69 psid) at 25 °C (77 °F) 2.0 bar (29 psid) at 80 °C (176 °F)
Steam sterilization	Max. 1 bar (14.5 psig) (121 °C (249 °F)); 30 min.
Chemical regeneration/sterilization	can be sterilized with conventional chemical cleaners

More detailed information regarding regeneration can be found in our Note of Application 1 A 4.3.1.1



Filter Types/Retention Rates

absolute (β ratio ≥ 5000)

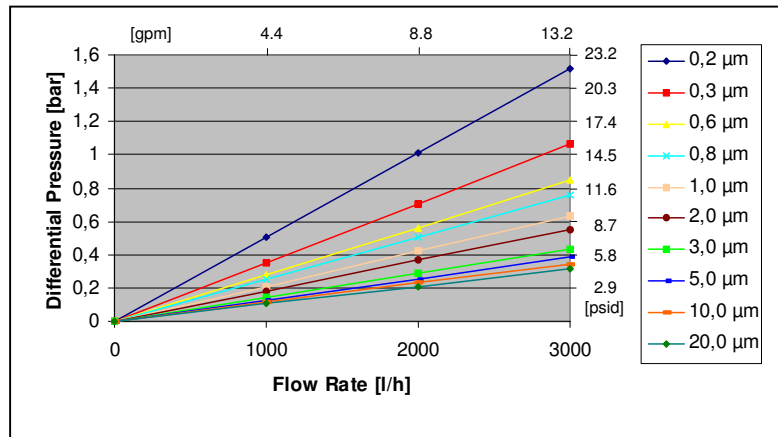
Filter type	Retention rate
TS002	0.2 μm
TS003	0.3 μm
TS005	0.5 μm
TS006	0.6 μm
TS008	0.8 μm
TS010	1.0 μm
TS020	2.0 μm
TS030	3.0 μm
TS050	5.0 μm
TS100	10.0 μm
TS200	20.0 μm

Materials Used

Filter material:	polypropylene
Internal and external support body:	polypropylene
End caps/adapters:	polypropylene with reinforcing ring
O-rings:	silicone (standard)

All materials used meet the FDA requirements according to 21 CFR § 177.1520.

Water Flow Rate 10" Element with Water at 20 °C (68 °F) (Recommended Values)



Ordering Information

Depth filter cartridges with protective foil in carton

Filter type	Retention rate	Adapter	Nominal length	Gasket
TS	002 = 0.2 µm	0 = Code 0	2 = 20"/ 50 cm	S = silicone
	003 = 0.3 µm	2 = Code 2	3 = 30"/ 75 cm	
	005 = 0.5 µm	5 = Code 5	4 = 40"/100 cm	
	006 = 0.6 µm	7 = Code 7		
	008 = 0.8 µm			
	010 = 1.0 µm			
	020 = 2.0 µm			
	030 = 3.0 µm			
	050 = 5.0 µm			
	100 = 10.0 µm			
	200 = 20.0 µm			

Example:

TS	006	7	2	S
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BECO PROTECT TS

0.6 µm retention rate; Code 7; 20"; silicone gasket

Safety

When used and handled correctly, there are no known unfavorable effects associated with this product. BECO PROTECT TS depth filter cartridges do not require the provision of safety-relevant information. There are no known risks to humans or the environment during storage, handling and transport.

Disposal

BECO PROTECT TS depth filter cartridges should be treated as industrial waste. Any local and other official regulations must be followed, taking the product to be filtered into account.

Storage

BECO PROTECT TS depth filter cartridges should be stored in their original packaging, and in a dry, odor-free and UV ray protected place. Never store the product near evaporating chemicals, oils or fuels etc. The filter cartridges should be used within 2 years after delivery.

Adapter Codes

Code 7	Code 2
2-226 O-ring	2-222 O-ring
2-way bayonet adapter with centering tip	3-way bayonet adapter with centering tip



Code 5	Code 0
2-222 O-ring with centering tip	2-222 O-ring without centering tip



HS customs tariff: 8421 99 00

Certified Quality

During the production process, BECO PROTECT TS depth filter cartridges are monitored constantly to ensure consistently high quality.

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