Donaldson
FILTRATION SOLUTIONS

PP100 CN

ABSOLUTE DEPTH FILTER ELEMENTS

Process Filtration

The Donaldson LifeTec™ PP100 CN was specifically developed for maximum safety, performance and economics in protecting bottled water and soft drinks from cryptosporidium and giardia contamination.

The PP100 CN filter has been tested and approved per NSF Standard 53 as an absolute barrier to cryptosporidium and giardia in processed food and beverage applications.

The 1 µm absolute-rated PP100 CN pleated filter element provides unmatched filtration performance. It contains a self-bonded microfiber filter medium composed of multiple layers of successively finer fibers and smaller pores. This highly porous, tapered pore structure provides superior flow rates and high throughputs, while maintaining an extraordinary dirt holding capacity. The filter's rugged, all polypropylene construction withstands everyday hydraulic challenges in bottling applications.

PP100 CN

FEATURES & BENEFITS

- Absolute removal of cryptosporidium and giardia
- Tapered pore structure for longer service life
- Highly durable polypropylene construction
- Excellent flow rate
- Approved for Food Contact Use according to CFR Title 21 & EC/1935/2004

INDUSTRIES AND APPLICATIONS

INDUSTRIES		
Bottled Spring Water	Dairy	Wineries
Soft Drinks	Breweries	Juice

CRYPTOSPORIDIUM CONTROL	
Purified Bottled Water	Bottled Spring Water
Bottled Mineral Water	Ingredient Water

SPECIFICATIONS

QUALITY TEST

All products have been inspected and released by Quality Assurance as having met the following requirements:

- All final filter elements are integrity tested to verify compliance with established quality and design specifications and to assure consistent and reliable performance.
- The traceability of each filter element according to EC/1935/2004 is provided by lot number and serial number.
- All filters show no migration of the filter medium and are non-fiber releasing.
- All PP100 CN filter elements are completely staged, assembled, tested and packaged in Class 7 clean room facility, whose Quality Management System is approved by an accredited registering body to the appropriate ISO 9001 Quality Systems Standard.

MATERIAL COMPLIANCE USA

All components of the PP100 CN filter element are FDA listed for food contact use in the Code of Federal Regulations (CFR), Title 21.

MATERIALS		CFR TITLE 21
Filter Material	Polypropylene	177.1520
Upstream Support	Polypropylene	177.1520
Downstream Support	Polypropylene	177.1520
Outer Guard	Polypropylene	177.1520
Core	Polypropylene	177.1520
End Caps	Polypropylene	177.1520
O-Rings	EPDM	177.2600
	Silicone	177.2600
Sealing Method	Thermal Bonding	

MATERIAL COMPLIANCE EU

The PP100 CN filter element meets the guideline for Food Contact Use as given in European Regulation (EC) Number 1935/2004. All polymeric components (polypropylene) meet the requirements of EU Directive EC/10/2011 relating to plastic materials and articles intended to come into contact with foodstuffs. Migration tests have been carried out in simulants after flushing or in flow conditions. All materials used do not contain any Substances of Very High Concern (SVHC) as defined in EC/1907/2006 (REACH Guideline) and EC/65/2011 (RoHS Guideline) and are free of any latex-based components. Furthermore the materials do not contain any Animal Derived Ingredient (ADI-free) and thus bear no risk of transmitting TSE and BSE.

BACTERIAL RETENTION

The filter type PP100 CN (1 µm absolute) has been tested and approved per NSF Standard 53 as an absolute barrier to cryptosporidium and giardia in potable and drinking water applications. It also complies with the CDC/EPA recommendation for using absolute-rated filters to control cryptosporidium in drinking water.

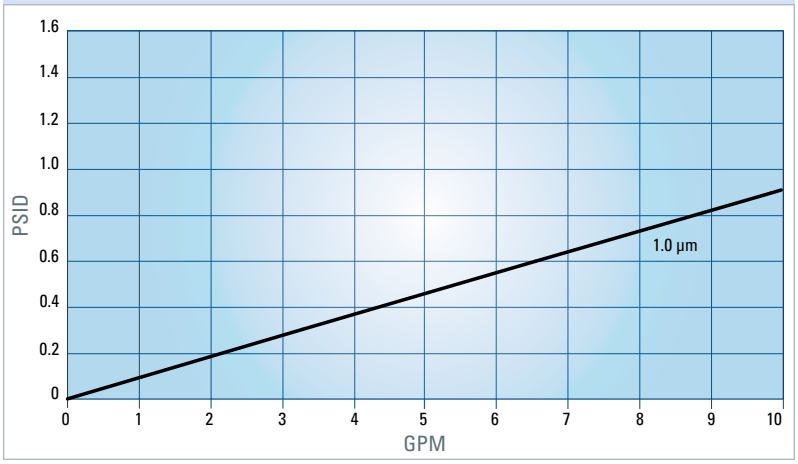
RETENTION		
Retention Rate	Microorganism	Efficiency
1.0 µm	Cryptosporidium	> 99.95%

Absolute Retention Rate*	1 µm absolute: > 99.98% for particles 1 µm (ß - value > 5000)	
Filtration Surface	0.6 m² per 250 mm element (10")	
Maximum Differential Pressure	Operating Temperature	Differential Pressure
	100°F	80 psi
	150°F	60 psi
	180°F	30 psi
Cumulative Steaming Time**	250°F Saturated Steam: > 100 cycles (30 minutes)	

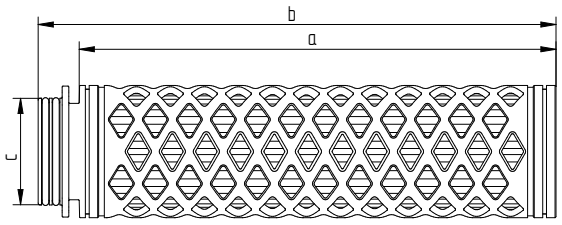
* The removal ratings given in this chart represent actual dynamic measurements obtained from a controlled laboratory tests using FTD in deionised water at a flow rate of 1 l/m (0,2 gpm) per 95 cm² of the filter matrix. The particle retention efficiencies were determined with a state-of-the-art liquid particle counter that can accurately measure particles down to 0.5 µm.

** Figures are based on lab tests to evaluate steaming resistance. Filter elements need to be checked in actual use. Contact Donaldson for recommended Autoclaving/Steaming procedures.

PP100 CN FLOW CHARACTERISTICS (WATER)

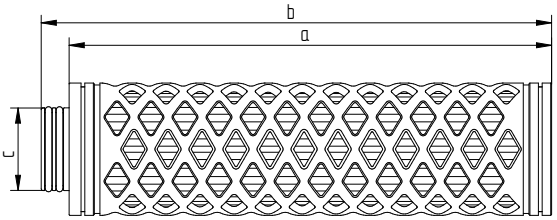


DIMENSIONS



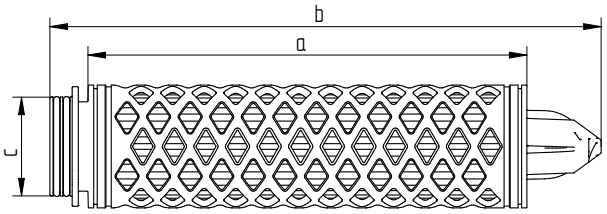
CODE 2 Connection			
Filter Size	Dimensions (in)		
	a	b	c
10"	10.0	10.8	2.2
20"	19.5	20.3	2.2
30"	29.0	29.8	2.2
40"	38.5	39.4	2.2

Code 2: 2 x 226 O-Rings, bayonet 2 locking tabs, flat end cap, integrated reinforcement ring



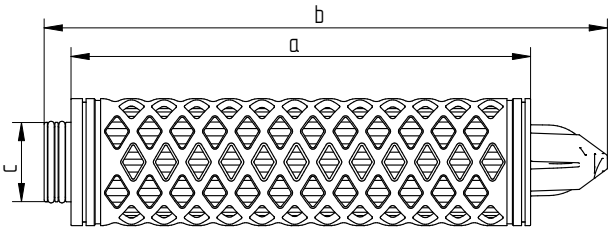
CODE 3 Connection			
Filter Size	Dimensions (in)		
	a	b	c
10"	10.1	10.7	1.7
20"	19.6	20.2	1.7
30"	29.1	29.7	1.7
40"	38.7	39.3	1.7

Code 3: 2 x 222 O-Rings, plug connection, flat end cap, integrated reinforcement ring



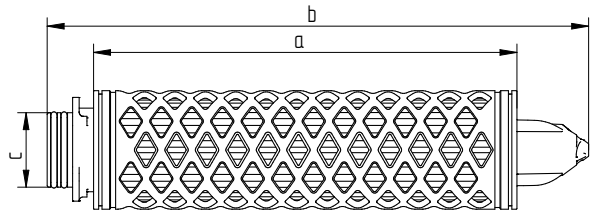
CODE 7 Connection			
Filter Size	Dimensions (in)		
	a	b	c
10"	9.9	12.4	2.2
20"	19.4	21.9	2.2
30"	28.9	31.5	2.2
40"	38.5	41.0	2.2

Code 7: 2 x 226 O-Rings, bayonet 2 locking tabs, locating fin, integrated reinforcement ring



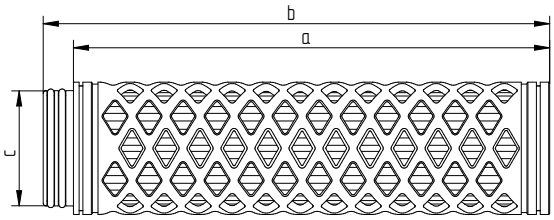
CODE 8 Connection			
Filter Size	Dimensions (in)		
	a	b	c
10"	10.0	12.2	1.7
20"	19.5	21.8	1.7
30"	29.1	31.3	1.7
40"	38.6	40.8	1.7

Code 8: 2 x 222 O-Rings, plug connection, locating fin, integrated reinforcement ring



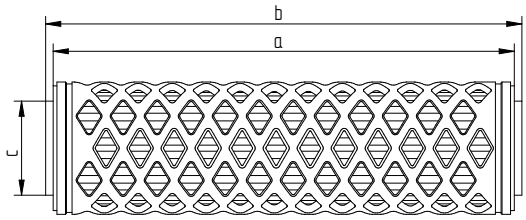
CODE 9 Connection			
Filter Size	Dimensions (in)		
	a	b	c
10"	9.8	12.6	1.7
20"	19.4	22.1	1.7
30"	28.9	31.7	1.7
40"	38.4	41.2	1.7

Code 9: 2 x 222 O-Rings, bayonet 3 locking tabs, locating fin, integrated reinforcement ring



UF Connection			
Filter Size	Dimensions (in)		
	a	b	c
10"	9.9	10.6	2.4
20"	19.4	20.1	2.4
30"	29.0	29.6	2.4

Code UF: 2 x 226 O-Rings, plug connection, flat end cap, integrated reinforcement ring



DOE Connection			
Filter Size	Dimensions (in)		
	a	b	c
10"	9.6	9.8	2.0
20"	19.7	19.9	2.0
30"	29.7	29.9	2.0
40"	39.7	39.9	2.0

DOE: Double open end with EPDM gaskets

Donaldson
FILTRATION SOLUTIONS

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F117019 ENG (10/20) PP100 CN Absolute Depth Filter Elements