Donaldson
FILTRATION SOLUTIONS

PROCESS FILTRATION FROM PURE TO STERILE

LifeTec PP100 CN

MAIN 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 acc. to CFR Title 21 & EC/1935/2004

PRODUCT DESCRIPTION

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 Donaldson LifeTec PP100 CN filter 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 1 µm filters to control Cryptosporidium in drinking water.

The 1 µm absolute-rated, Donaldson LifeTec PP100 CN pleated filter element provides unmatched filtration performance. It contains a self-bonded microfiber filter medium composed of multiple layers of successively finer fibres 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.

INDUSTRIES

- Mineral Water

- Soft Drinks

- Dairies

- Breweries

- Wineries

- Environmental

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APPLICATIONS

The Donaldson LifeTec PP100 CN was specifically designed for the following applications:

Cryptosporidium control in:

- Bottled Water
- Mineral Water
- Spring Water
- Table Water
- Process Water
- Ingredient Water
- Potable Water

Filtration of Food and Beverages products:

- Soft Drinks
- Beer
- Wine
- Spirits
- Syrups

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

Filter 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 Donaldson LifeTec 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 LifeTec 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 Rate	Microorganism	Efficiency
1.0 µm	Cryptosporidium	> 99.95 %

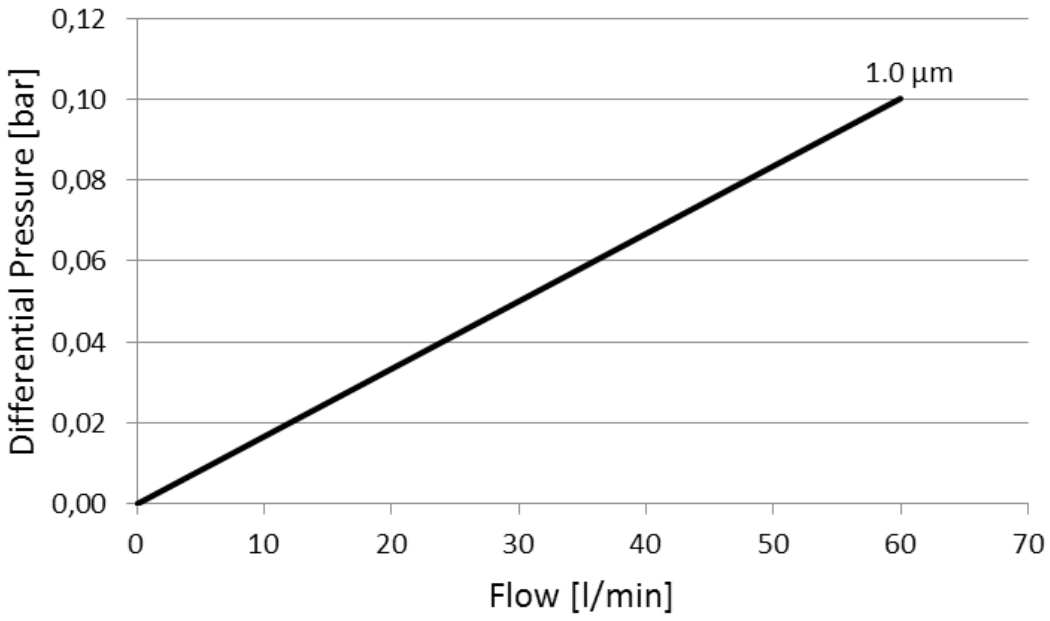
PRODUCT SPECIFICATIONS

Product Specifications				
Absolute Retention Rate*	1 µm absolute: > 99.98 % for particles of 1 µm (ß – value > 5000)			
Filtration Surface	0.6 m² per 250 mm element (10")			
Maximum Differential Pressure	Operating temperature		Differential pressure	
	°C	°F	bar	psi
	38	100	5.5	80
	66	150	4.1	60
	82	180	2.1	30
Cumulative Steaming Time**	121°C (250° F), Saturated Steam: > 100 cycles (30 minutes)			

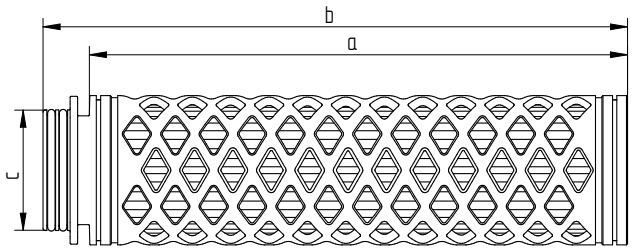
* The removal ratings given in this chart represent actual dynamic measurements obtained from a controlled laboratory tests using FTD in deionised water at a flow rate of 1 l/m (0,2 gpm) per 95 cm² of the filter matrix. The particle retention efficiencies were determined with a state-of-the-art liquid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

FLOW CHARACTERISTICS

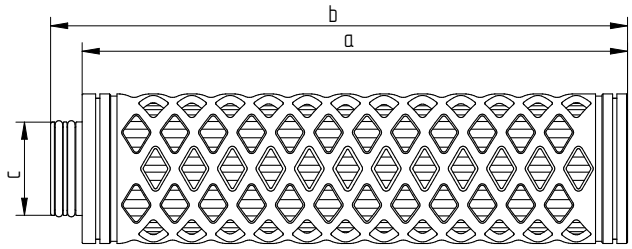


LifeTec PP100 CN
10", Deionised water, 20°C



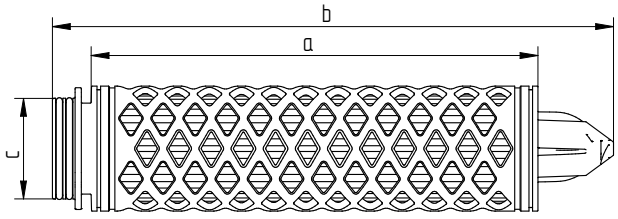
Dimensions (CODE 2 connection)						
Size	**a**		**b**		**c**	
	mm	inch	mm	inch	mm	inch
10″	253	10.0	274	10.8	56	2.2
20″	495	19.5	516	20.3	56	2.2
30″	737	29.0	758	29.8	56	2.2
40″	979	38.5	1000	39.4	56	2.2

CODE 2: 2 x 226 o-rings, bayonet 2 locking tabs, flat end cap, integrated reinforcement ring



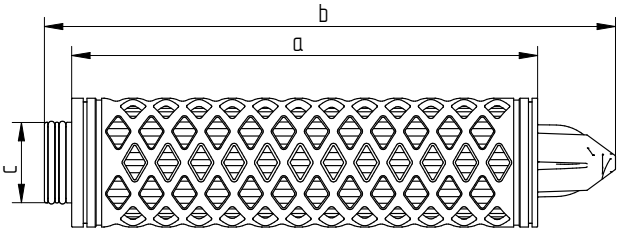
Dimensions (CODE 3 connection)						
Size	**a**		**b**		**c**	
	mm	inch	mm	inch	mm	inch
10″	256	10.1	271	10.7	44	1.7
20″	498	19.6	513	20.2	44	1.7
30″	740	29.1	755	29.7	44	1.7
40″	982	38.7	997	39.3	44	1.7

CODE 3: 2 x 222 o-rings, plug connection, flat end cap, integrated reinforcement ring



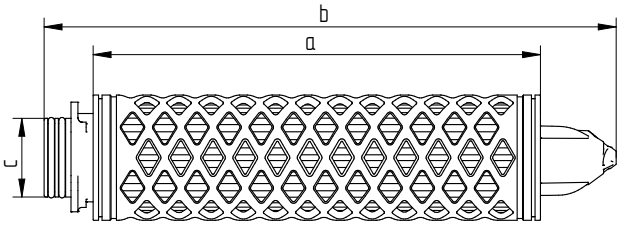
Dimensions (CODE 7 connection)						
Size	**a**		**b**		**c**	
	mm	inch	mm	inch	mm	inch
10″	251	9.9	315	12.4	56	2.2
20″	493	19.4	557	21.9	56	2.2
30″	735	28.9	799	31.5	56	2.2
40″	977	38.5	1041	41.0	56	2.2

CODE 7: 2 x 226 o-rings, bayonet 2 locking tabs, locating fin, integrated reinforcement ring



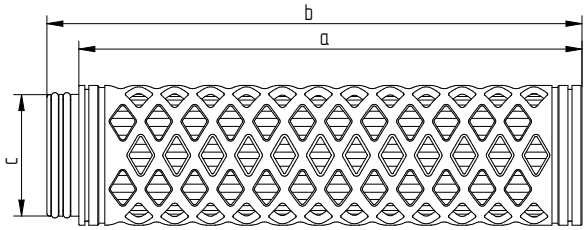
Dimensions (CODE 8 connection)						
Size	**a**		**b**		**c**	
	mm	inch	mm	inch	mm	inch
10″	254	10.0	311	12.2	44	1.7
20″	496	19.5	553	21.8	44	1.7
30″	738	29.1	795	31.3	44	1.7
40″	980	38.6	1037	40.8	44	1.7

CODE 8: 2 x 222 o-rings, plug connection, locating fin, integrated reinforcement ring



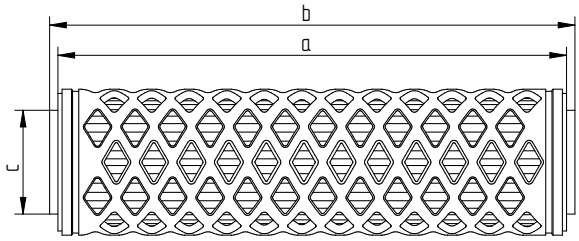
Dimensions (CODE 9 connection)						
Size	**a**		**b**		**c**	
	mm	inch	mm	inch	mm	inch
10″	250	9.8	320	12.6	44	1.7
20″	492	19.4	562	22.1	44	1.7
30″	734	28.9	804	31.7	44	1.7
40″	976	38.4	1046	41.2	44	1.7

CODE 9: 2 x 222 o-rings, bayonet 3 locking tabs, locating fin, integrated reinforcement ring



Dimensions (UF connection)						
Size	**a**		**b**		**c**	
	mm	inch	mm	inch	mm	inch
10″	252	9.9	268	10.6	61	2.4
20″	494	19.4	510	20.1	61	2.4
30″	736	29.0	752	29.6	61	2.4

CODE UF: 2 x 226 o-rings, plug connection, flat end cap, integrated reinforcement ring



Dimensions (DOE connection)						
Size	**a**		**b**		**c**	
	mm	inch	mm	inch	mm	inch
10″	244	9.6	250	9.8	50	2.0
20″	500	19.7	506	19.9	50	2.0
30″	754	29.7	760	29.9	50	2.0
40″	1008	39.7	1014	39.9	50	2.0

DOE: Double open end with EPDM gaskets

Other end cap configurations on request.

- Integrity test of this element to be done by DOP Test
- For information on test equipment or test services, please contact your Donaldson Sales Engineer and visit our website at **www.donaldson.com**!