Donaldson
FILTRATION SOLUTIONS

PROCESS FILTRATION
FROM PURE TO STERILE

PP-FC

MAIN FEATURES & BENEFITS

- Nominally rated depth filter developed for the cost-effective pre-filtration of liquids
- 100% polypropylene construction, minimal extractables and broad chemical compatibility
- Four layer graded density ensures low initial pressure drops and high dirt capacity for extended service life
- Approved for food contact use acc. to CFR Title 21

PRODUCT DESCRIPTION

The Donaldson PP-FC is the latest development in nominal rated spun bonded filter element design. Produced for strength and high void volume, against similarly rated elements in terms of life and cost effectiveness. The superior structure remains integral even under severe operating conditions and is less prone to the media migration and breakthrough often found on other unsupported spun bonded products.

The polypropylene fibres used are without the need for binders, resins or lubricants during the extrusion process. This results in a one-piece construction that is resistant to unloading and media shedding. True depth filtration results from the closely controlled fibre production in manufacturing, and the process environment which ensures a consistent and reliable high-quality element. All the layers are inter-linked to offer maximum support while ensuring that the high void volume is maintained, but with increasing fibre density towards the element centre. This results in true depth filtration, ideal for use as water filters, chemical filters and trap filters.

All components meet the USA requirements for food contact use in accordance with CFR (Code of Federal Regulations) Title 21. The nominal rated PP-FC depth filter is designed and developed as pre-filter for coarse contaminations and as cost effective final filter.

INDUSTRIES

- Food

- Beverages

- Chemical

- Pharmaceutical

- Environment

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PRODUCT SPECIFICATIONS

Features	Specifications
Retention rates	1 µm, 5 µm, 10 µm, 20 µm, 30 µm, 50 µm, 75 µm, 100 µm, 150 µm @ 85 % retention efficiency
Recommended filter element change	1.5 bar (21.76 psi) differential pressure)
Maximum differential pressure	3.5 bar (50 psi) @ 20 °C (68 °F) 1 bar (14.5 psi) @ 60 °C (140 °F) 0.5 bar (7.25 psi) @ 80 °C (176 °F)
Maximum operating temperature	80 °C (176 °F)
Steam sterilization	Not recommended

APPLICATIONS

Typical applications for PP-FC filter elements include:

Purification of Food and Beverage products:

- Water
- Mineral water
- Soft Drinks
- Beer
- Wine
- Spirits

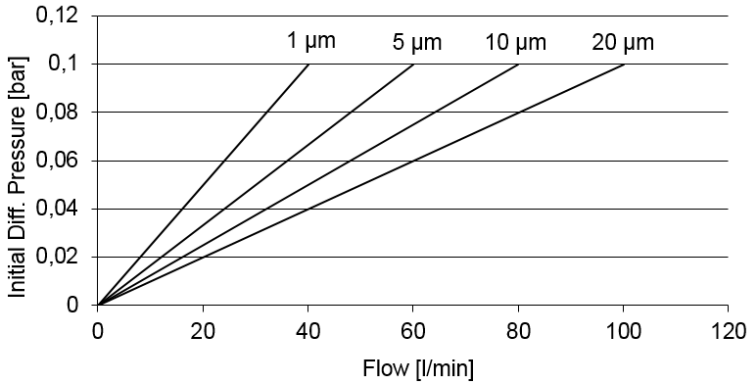
Purification of chemicals:

- Acids
- Bases
- Complexing agents
- Alcohols, Aldehydes
- Etchants
- Chlorinated and fluorinated solvents
- Esters and Ketones
- Photo-lithographic liquids

Purification of chemicals:

- Cosmetics
- Oils
- Lubricants
- Paints and dyes
- Jet printer inks

FLOW CHARACTERISTICS



MATERIAL COMPLIANCE USA

All components of the PP-FC filter element are FDA listed for food contact use in the Code of Federal Regulations (CFR), Title 21:

Materials of construction		CFR Title 21
Filter medium	Polypropylene	§ 177.1520
End caps	Polypropylene	§ 177.1520
O-rings	EPDM	§ 177.2600

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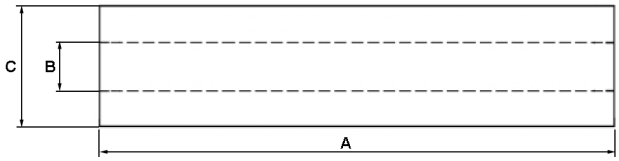
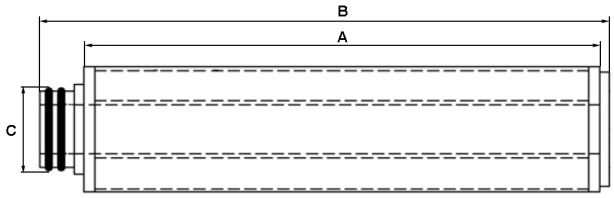
AVAILABLE END CAP CONFIGURATIONS



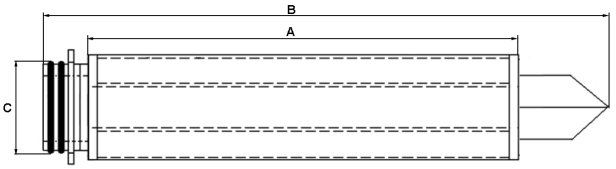
Dimensions DOE connection						
	A		B		C	
Size	mm	inch	mm	inch	mm	inch
5“	125	4,92	28	11,02	63	2,48
10“	250	9,84	28	11,02	63	2,48
20“	508	20	28	11,02	63	2,48
30“	762	30	28	11,02	63	2,48
40“	1016	40	28	11,02	63	2,48

DOE: Double open end



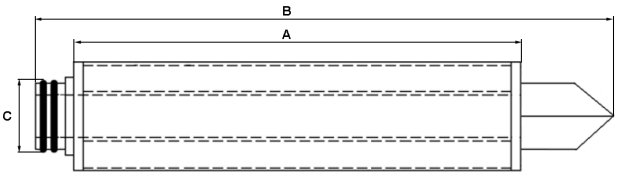
Dimensions Code 3 connection						
	A		B		C	
Size	mm	inch	mm	inch	mm	inch
5“	127	5	149	5,87	43	1,69
10“	252	9,92	274	10,79	43	1,69
20“	509	20,03	531	10,91	43	1,69
30“	763	30,03	785	30,91	43	1,69
40“	1017	40,03	1039	40,91	43	1,69

Code 3: 2 x 222 O-rings, flat end cap



Dimensions Code 7 connection						
	A		B		C	
Size	mm	inch	mm	inch	mm	inch
5“	127	5	196	7,72	56	2,20
10“	252	9,92	321	12,64	56	2,20
20“	509	20,03	578	22,76	56	2,20
30“	763	30,03	832	32,76	56	2,20
40“	1017	40,03	1086	42,76	56	2,20

CODE 7: 2 x 226 O-rings, bayonet 2 locking tabs, locating fin



Dimensions Code 8 connection						
	A		B		C	
Size	mm	inch	mm	inch	mm	inch
5“	127	5	191	7,52	43	1,69
10“	252	9,92	316	12,44	43	1,69
20“	509	20,03	573	22,56	43	1,69
30“	763	30,03	827	32,56	43	1,69
40“	1017	40,03	1081	42,56	43	1,69

CODE 8: 2 x 222 O-rings, locating fin

OTHER END CAP CONFIGURATIONS ON REQUEST

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donaldson.com/process

Donaldson Company, Inc.
Minneapolis, MN

Contact us

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