Process Filtration
From Pure to Sterile

Capsule Filters

MAIN FEATURES & BENEFITS:

- **Ready-to-use disposable filter units**
- **Sterilizable and regenerable**
- **Highly durable Polypropylene construction**
- **Excellent flow rate**
- **Approved for Food Contact Use acc. to CFR Title 21 & 1935/2004/EC**

INDUSTRIES:

- **Food & Beverage**

- **Biotech**

- **Chemical**

- **Pharmaceutical & Health Care**

- **Cosmetics**

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Capsule Filters

PRODUCT DESCRIPTION

Donaldson capsule filters are ready-to-use disposable filter assemblies. They are ideal for use in small batch and critical point-of-use applications, in liquid or gas service. Donaldson capsule filters incorporate the full range of Donaldson filtration media and removal ratings in compact, reliable assemblies. Each capsule filter assembly consists of a pleated filter element integrally sealed into a rugged polypropylene housing. A completely self-contained unit is formed by a state-of-the-art thermal bonding process, ensuring maximum filter integrity, security and performance. No glues, resins, adhesives, metals or other extraneous materials are used.

Donaldson capsule filters have high mechanical strength to withstand shocks, back pressurization, multiple sterilizations and rigorous daily use. These products are available in one size, equipped with 1.5” Clamp / aseptic Flange inlet and outlet connection.

All components meet the EU and USA requirements for Food Contact Use in accordance with **CFR (Code of Federal Regulations) Title 21** and **1935/2004/EC**. All Donaldson Capsule filters have passed the USP Class VI tests for plastics. The filter elements are manufactured in accordance with the manufacturing requirements, have no migration of filter media, are non-fibre releasing and are thermally welded without the use of binders or other chemical additives.

GENERAL PRODUCT SPECIFICATIONS

General Product Specifications		
Effective Filtration Area	• UFTD – L : 2000 cm² (2 ft²)	
Operative Temperature Range	• 0°C – 65°C (32°F – 149°F)	
Operating Pressure	Liquid Applications	• 5.5 bar at 25°C (75 psig at 100°F)
	Gas Applications	• 2.5 bar at 30°C (50 psig at 100°F)

MATERIAL COMPLIANCE USA

All components of the Donaldson capsule filters are FDA listed for food contact use in the **Code of Federal Regulations (CFR), Title 21**

Filter Materials		CFR Title
Filter Housing:	**Polypropylene**	**177.1520**
Filter Medium / Membrane:	Polyethersulfone	177.2240
	Polypropylene	177.1520
	Poly-Tetra-Fluor-Ethylene	177.1550
Support Material:	Polypropylene	177.1520
Sealing Method:	Thermal Bonding	

MATERIAL COMPLIANCE EU

The Donaldson Capsule filter elements meet the guideline for Food Contact Use as given in **European Regulation (EC) Number 1935/2004**. All polymeric components (Polypropylene, Polyethersulfone, PTFE) meet the requirements of EU Directive 2002/72/EC relating to plastic materials and articles intended to come into contact with foodstuffs.

Migration tests have been carried out in simulant after flushing or in flow conditions.

AUTOCLAVING

Autoclave at a minimum of 121°C (for 60 minutes) or at 125°C (for 45 minutes). Donaldson capsule filters can be repeatedly autoclaved without loss of integrity. In-line steam sterilization is not recommended, as this will exceed the material design limits and may result in a damage of the plastic housing. To prevent recontamination of the sterilised capsule filter, it is recommended that the filter element is sterilised in special bags.

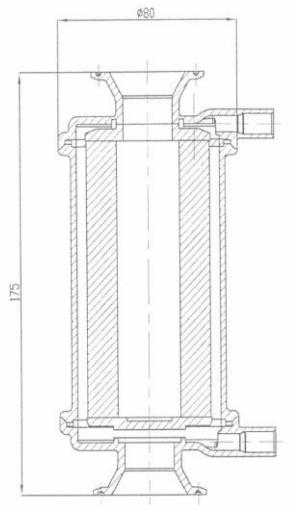
These special bags (paper bags as per DIN EN 868-4, hot and self-sealing transparent bags made of paper and plastic composite foil as per DIN EN 868-5 or other equivalent packaging) provide a barrier against micro-organisms but are permeable to water vapour.

Capsule Filters

GENERAL DIMENSION INFORMATION

All Donaldson capsule filters are equipped with two thread Luer-lok® for venting, draining or sampling functions. The following connections are available for this capsule filter types:

- 1“-1.5” TC / aseptic Flange



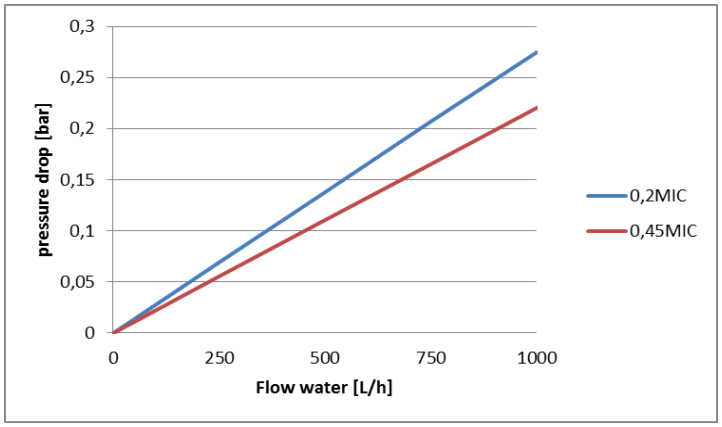
UFTD-L

PRODUCT SPECIFICATIONS CAPSULE FILTER TYPE UFTD-L-PES W

- One way disposable membrane filter for Food & Beverage applications

Membrane Material	• Polyethersulfone	
Absolute Retention Ratings	• 0.2 µm, 0.45 µm	
Bacterial Retention (ASTM F838-83 Challenge, Brev. Diminuta 0,2MIC / Serratia Marcescens 0,45MIC)	• UFTD -L- PES W 0,2 µm	LRV > 7/cm2
	• UFTD -L- PES W 0,45 µm	LRV > 7/cm2
Integrity Test: maximum Diffusion rate (Water)	Filter Grade	Max. Diffusion-rate [mL/min]
	0.2 µm	8.0 @ 2,8barg
	0.45 µm	7.5 @ 1,7barg

FLOW CHARACTERISTICS



Data given for type UFTD-L-PES W with 1.5” TC connection.

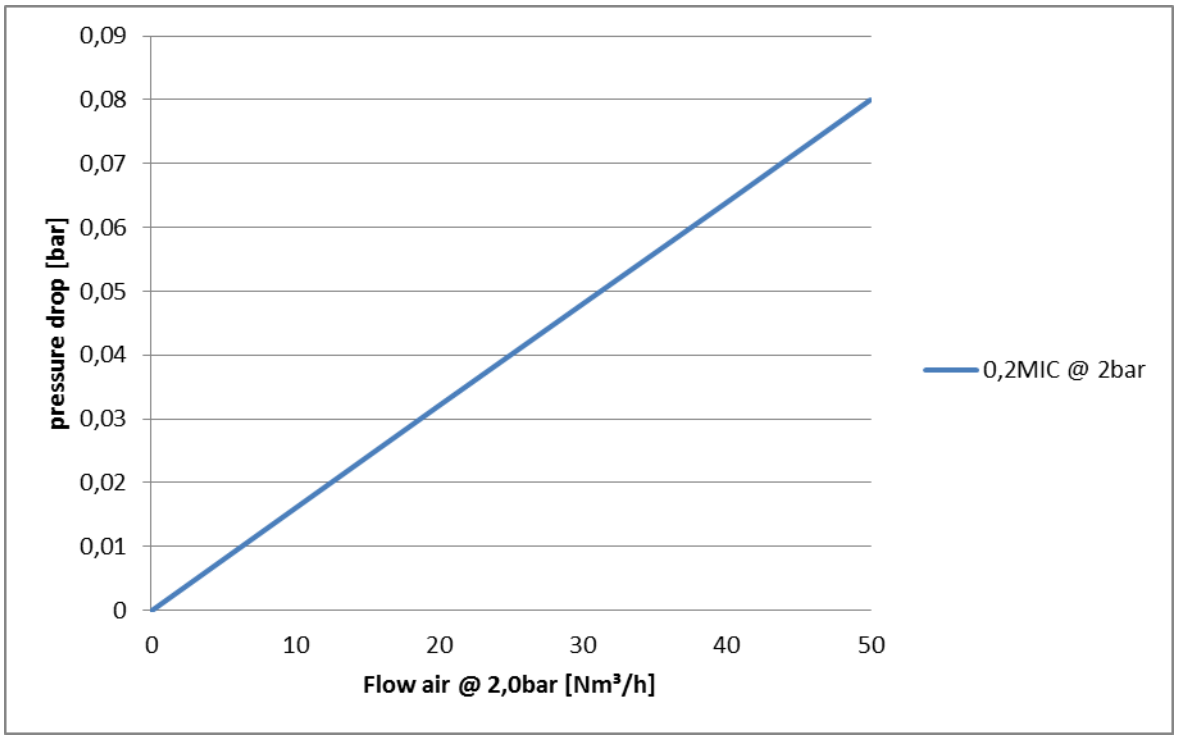
PRODUCT SPECIFICATIONS CAPSULE FILTERS TYPE UFTD-L-PT

- One way disposable membrane filter for aggressive solvents or gas and vent applications

Membrane Material	• Poly-Tetra-Fluor-Ethylene
Absolute Retention Rating	• 0.2 µm
Bacterial Retention (ASTM F838-83 Challenge, Brev. diminuta)	• UFTD-L-PT 0.2 µm LRV > 7/cm2
Integrity Test: maximum Diffusion rate (IPA/Water: 60/40)	Filter Grade UFTD-L-PT 0.2 µm / Max. diffusion rate [mL/min] 6.0mL/min @ 0,8bar

FLOW CHARACTERISTICS

Data given for type UFTD-L-PT with 1.5" TC connection



Capsule Filters

PRODUCT SPECIFICATIONS CAPSULE FILTER TYPE UFTD-L-PP100

- One way disposable absolute rated depth filter for applications in Food & Beverage, Pharma or chemical industries

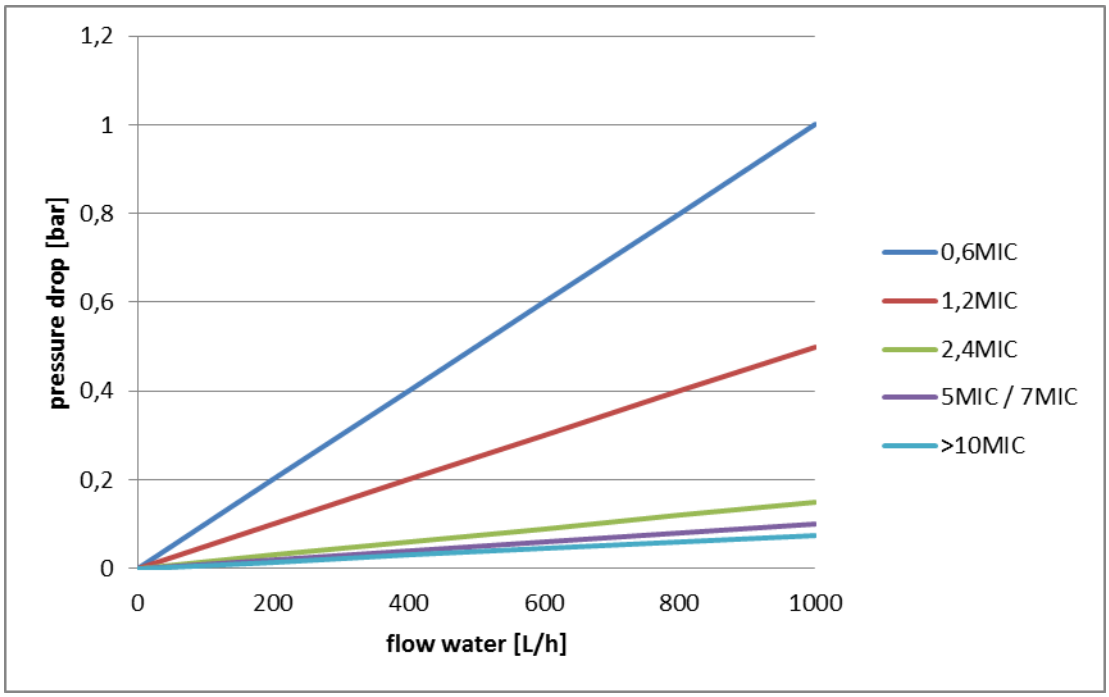
Filter Material	• Polypropylene
Absolute Retention Ratings	• 0,6 µm, 1.2 µm, 2.4 µm, 5 µm, 7 µm, 10 µm, 20µm

Particle Retention

	Percent Removal		
Retention Grade	100 %	99 %	90 %
0,6	0.60	0.45	0.2
1.2	1.20	1.10	0.70
2.4	2.40	2.30	2.00
5	5.00	4.50	3.00
7	7.00	6.50	5.00
10	10.00	9.50	7.50
20	20.00	15.50	10.00

FLOW CHARACTERISTICS

Data given for type UFTD-L-PP100 with 1.5” TC connection



Technical alterations reserved 04/2017

- **For information on various integrity test equipment or test services, please contact your Donaldson Sales Engineer and visit our website at www.donaldson.com!**

(Rev08 – 04/17)

Donaldson
FILTRATION SOLUTIONS