



MAIN FEATURES & BENEFITS

- Absolute particle removal
- Asymmetrical 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

Donaldson LifeTec PP100 N filters are absolute rated depth type filters constructed of 100 % Polypropylene. They contain a graded density Polypropylene microfiber filter medium that provides a tapered pore structure. LifeTec PP100 N filters deliver superior flow rates and high throughput, with absolute micron & submicron particulate retention and high dirt holding capacity. Their all-Polypropylene construction provides broad chemical compatibility and low extractable levels in a wide range of fluids and applications.

The LifeTec PP100 N filter's Polypropylene media is made from a process which produces a self-bonded structure comprised of multiple layers of successively finer fibres and smaller pores. This state-of-the-art design results in a highly porous, tapered pore structure consistent of a controlled absolute rated inner layer and several outer prefilter layers which substantially increase the dirt holding capacity.

All components meet the EU and USA requirements for Food Contact Use in accordance with CFR (Code of Federal Regulations) Title 21 and EC/1935/2004 and subsequent

amendments. The filter element is manufactured in accordance with the GMP requirements as defined in EC/2023/2006, has no migration of filter media, is non-fibre releasing and is thermally welded.

All materials used do not contain any Substances of very high concern (SVHC) as defined in EC/1907/2006 and EC/65/2011.

INDUSTRIES



- Mineral Water



- Soft Drinks



- Chemical



- Breweries



- Wineries



- Environmental

Donaldson Filtration Deutschland GmbH

Büssingstraße 1
42781 Haan • Germany
Tel. +49 2129 569 0
Fax +49 2129 569 100
CAP-de@donaldson.com
www.donaldson.com

APPLICATIONS

The absolute rated LifeTec PP100 N depth filter is designed and developed as prefilter in front of membrane filters or as low cost alternative to membrane – based final filters. Typical applications for LifeTec PP100 N filter elements include:

Purification of Food and Beverage products:

- Bottled Water
- Soft Drinks
- Beer
- Wine
- Spirits
- Syrups

Purification of chemicals:

- Acids
- Bases
- Complexing agents
- Alcohols, Aldehydes
- Etchants
- Chlorinated and fluorinated solvents
- Esters and Ketones
- Photolithographic Liquids

MATERIAL COMPLIANCE USA

All components of the LifeTec PP100 N 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 N 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 (B, D1) 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. The PP materials used for Cage & Core are treated acc. to EMA/410/01 Rev.03 and thus bear no risk of transmitting TSE and BSE.

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 Serial number.
- All filters show no migration of the filter medium and are non-fibre releasing.
- All LifeTec PP100 N 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.

RETENTION

| Retention Rate | Percent Removal | | |
|----------------|-----------------|---------|---------|
| | 99.98 % | 99% | 90% |
| 0.6 | 0.6µm | | |
| 0.8 | 0.8µm | | |
| 1 | 1.0µm | < 0.5µm | |
| 2.4 | 2.4µm | 2µm | > 0.5µm |
| 5 | 5µm | > 1µm | < 0.5µm |
| 10 | 10µm | < 6µm | > 2µm |

The removal ratings given in this chart represent actual dynamic measurements obtained from a controlled laboratory tests using ISO FTD (5 mg/l) in deionised water at a flow rate of 1lpm per 95 cm² of the filter matrix.

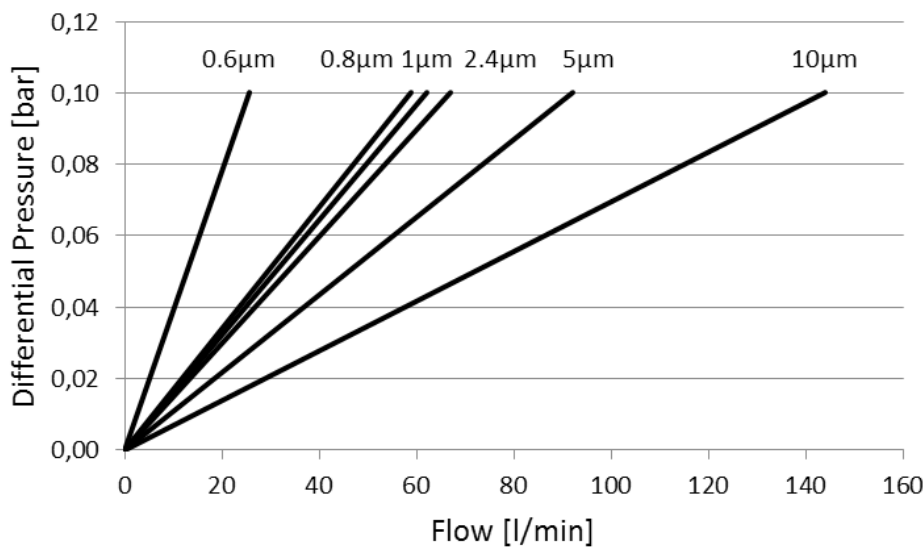
The particle retention efficiencies were determined with a state-of-the-art liquid particle counter that can accurately measure particles down to 0.5 µm.

PRODUCT SPECIFICATIONS

| Product Specifications | | | |
|-------------------------------|--|-----|-----------------------|
| Absolute Retention Rates | 0.6 µm, 0.8 µm, 1 µm, 2.4 µm, 5 µm, 10 µm | | |
| Filtration Surface | >= 0.6 m ² 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) | | |

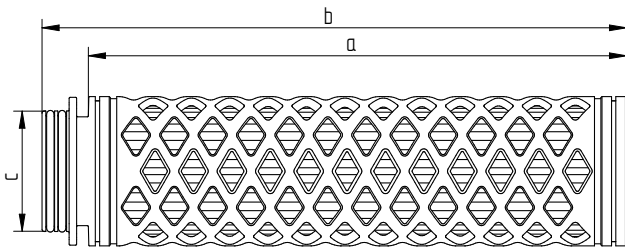
* Figures are based on lab tests to evaluate steaming resistance. Filter elements need to be checked in actual use. Contact Donaldson for recommended Autoclaving/Steaming procedures.

FLOW CHARACTERISTICS



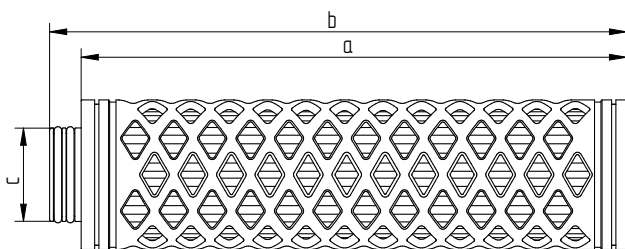
LifeTec PP100 N

10", Deionised water, 20°C



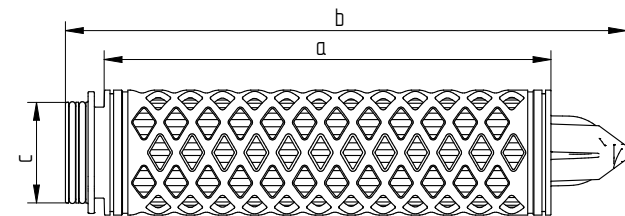
| Dimensions (CODE 2 connection) | | | | | | |
|--------------------------------|-----|------|------|------|----|------|
| Size | a | | b | | c | |
| | mm | inch | mm | inch | mm | inch |
| 10" | 253 | 10.0 | 274 | 10.8 | 56 | 2.2 |
| 20" | 495 | 19.5 | 516 | 20.3 | 56 | 2.2 |
| 30" | 737 | 29.0 | 758 | 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



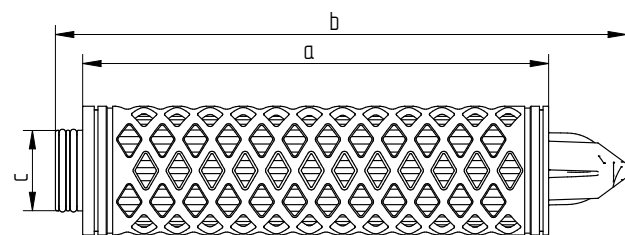
| Dimensions (CODE 3 connection) | | | | | | |
|--------------------------------|-----|------|-----|------|----|------|
| Size | a | | b | | c | |
| | mm | inch | mm | inch | mm | inch |
| 10" | 256 | 10.1 | 271 | 10.7 | 44 | 1.7 |
| 20" | 498 | 19.6 | 513 | 20.2 | 44 | 1.7 |
| 30" | 740 | 29.1 | 755 | 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



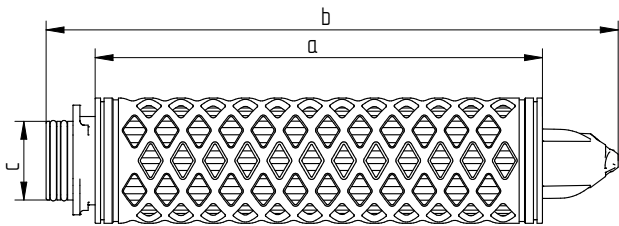
| Dimensions (CODE 7 connection) | | | | | | |
|--------------------------------|-----|------|------|------|----|------|
| Size | a | | b | | c | |
| | mm | inch | mm | inch | mm | inch |
| 10" | 251 | 9.9 | 315 | 12.4 | 56 | 2.2 |
| 20" | 493 | 19.4 | 557 | 21.9 | 56 | 2.2 |
| 30" | 735 | 28.9 | 799 | 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



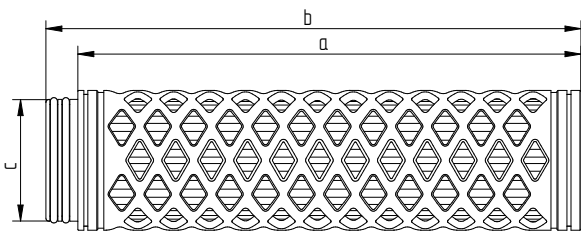
| Dimensions (CODE 8 connection) | | | | | | |
|--------------------------------|-----|------|------|------|----|------|
| Size | a | | b | | c | |
| | mm | inch | mm | inch | mm | inch |
| 10" | 254 | 10.0 | 311 | 12.2 | 44 | 1.7 |
| 20" | 496 | 19.5 | 553 | 21.8 | 44 | 1.7 |
| 30" | 738 | 29.1 | 795 | 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



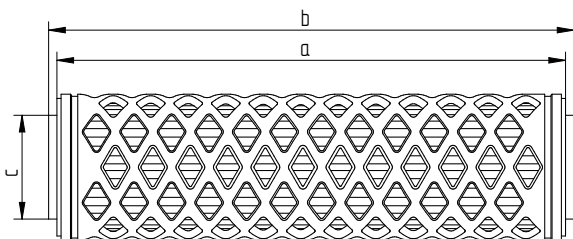
| Dimensions (CODE 9 connection) | | | | | | |
|--------------------------------|-----|------|------|------|----|------|
| Size | a | | b | | c | |
| | mm | inch | mm | inch | mm | inch |
| 10" | 250 | 9.8 | 320 | 12.6 | 44 | 1.7 |
| 20" | 492 | 19.4 | 562 | 22.1 | 44 | 1.7 |
| 30" | 734 | 28.9 | 804 | 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!