



### MAIN FEATURES & BENEFITS

- Absolute particle removal
- High dirt holding capacity for extended life service
- Highly durable Polypropylene construction
- Large surface area ensures low differential pressure drops
- Approved for Food Contact Use acc. to CFR Title 21 & EC/1935/2004

### PRODUCT DESCRIPTION

Donaldson PP100 N-TR filters are absolute rated depth type filters constructed of 100 % Polypropylene with excellent chemical compatibility. They are suitable for the use as membrane pre-filters and final polishing filters in application that do not require membrane filtration. Low initial pressure drop and high dirt holding capacity are the results of the large filter area. The thermal bonded construction eliminates the requirement of adhesives, maintaining product integrity in demanding applications and minimising the level of extractables in the filtrate.

The PP100 N-TR 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.

### INDUSTRIES



- Breweries



- Wineries

**APPLICATIONS**

The absolute rated PP100 N-TR depth filter is designed and developed as prefilter or final polishing filters, especially for trap filtration (downstream with a PVPP or Kieselgur-Filter), in front of membrane filters or as low cost alternative to Typical applications for PP100 N-TR filter elements include:

**Purification of Food and Beverage products:**

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

**MATERIAL COMPLIANCE USA**

All components of the PP100 N-TR 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 USA/EU**

The Donaldson PP F filter element meets the guideline for Food Contact Use acc. to CFR Title 21. EC 1935-2004 compliant, allowing the use in Food & Beverage applications, conformance to FDA 21CFR part 177 and USP Plastics Class VI.

**QUALITY TEST**

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

- All filter elements are tested to Beta 5000 using the industry standard OSU-F2 test procedure with A2 Fine and A4 Coarse test dust as appropriate.
- All filters show no migration of the filter medium and are non-fibre releasing.

**RETENTION**

Retention Rate	Percent Removal		
	99.98 %	99%	90%
5	5µm	4µm	2µm
10	10µm	5µm	3µm

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 cm<sup>2</sup> of the filter matrix.

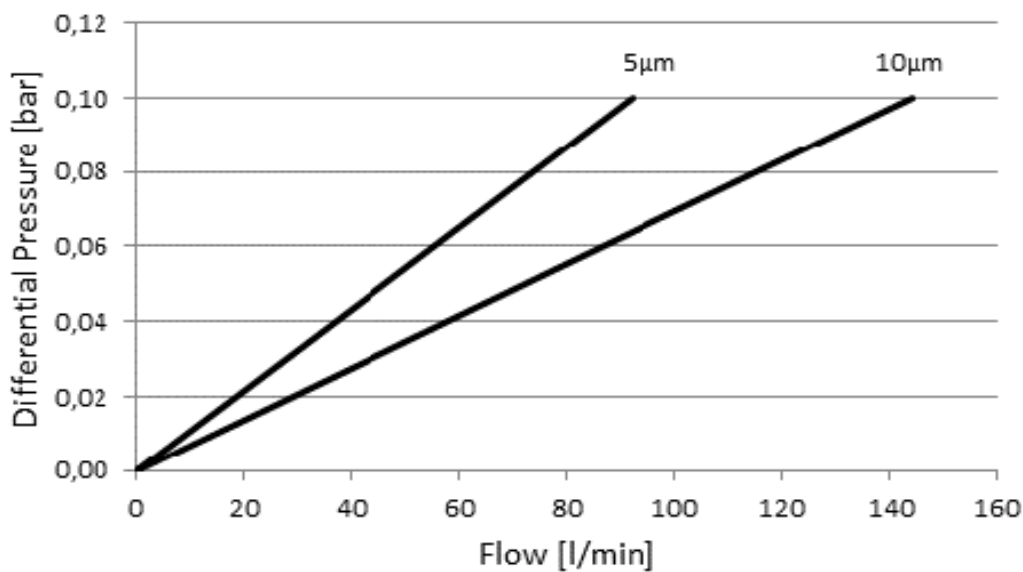
The particle retention efficiencies were determined with a state-of-the-art liquid particle counter that can accurately measure particles down to 0.5 µm.

**PRODUCT SPECIFICATIONS**

Product Specifications				
Absolute Retention Rates	5 µm, 10 µm			
Filtration Surface	> 0.6 m <sup>2</sup> per 250 mm element (10")			
Maximum Differential Pressure - forward flow	Operating temperature		Differential pressure	
	°C	°F	bar	psi
	20	68	4.0	48
	65	149	2.8	40.6
	80	176	1.0	14.5
Maximum Differential Pressure - reversed flow	20	68	3.0	43.5
Sterilisation*	Steaming or Autoclave: 135°C for 15 minutes (with optional steam ring)			
Sanitisation*	Hot Water: 90°C for 30 minutes repeatedly			

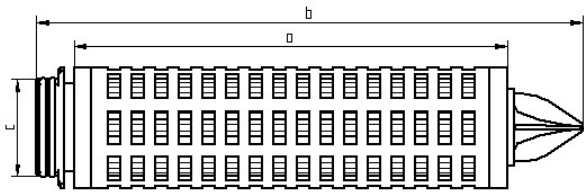
\* Figures are based on lab tests to evaluate steaming resistance and sanitisation. Filter elements need to be checked in actual use. Contact Donaldson for recommended Autoclaving/Steaming procedures.

**FLOW CHARACTERISTICS**



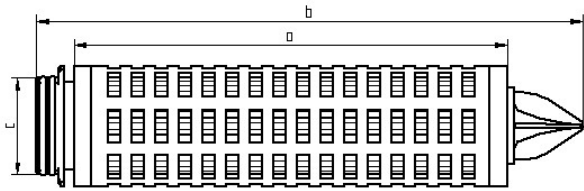
**PP100 N-TR**

10", Deionised water, 20°C



Dimensions (CODE 7 connection)						
Size	a		b		c	
	mm	inch	mm	inch	mm	inch
30"	763	30.4	831	32.7	56.5	2.2
40"	1017	40.04	1085	42.7	56.5	2.2

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



Dimensions (CODE 9 connection)						
Size	a		b		c	
	mm	inch	mm	inch	mm	inch
30"	763	30.4	831	32.7	56.5	1.7
40"	1017	40.04	1085	42.7	56.5	1.7

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