

Nexis® T Filter Cartridges

For Clarification and Particle Reduction

Nexis T filter cartridges are extremely robust melt blown depth filters that are ideal for use in rigorous clarification and particle reduction applications.

Description

Nexis T filter cartridges feature continuous graded, fixed pores which provide pre- and fine filtration within the same cartridge.

Their unique feature is Pall's proprietary CoLD_{SM} (Co-Located Large Diameter) fiber media technology, which ensures efficient use of the entire gradient depth of the filter, resulting in high fluid transport and high dirt holding capacity.

The CoLD Melt[™] process produces a mixture of micro-thin fibers intermingled and thermally bonded with large diameter CoLD fibers to provide an integral support and fluid transport network. The large internal void volume created by the CoLD process enables the capture of more contaminant than conventional cartridges, while the rigid support fibers hold the filtration fibers firmly in place.

The result is less potential for contaminant unloading and more efficient filtration under a variety of operating conditions.

Features	Benefits
High structural integrity with fixed fiber matrix	 Consistent filtrate quality Highly stable structure, resistance to contaminant unloading even at high differential pressures High performance filtration under a variety of operating conditions
Micro-thin fibers with continuous graded fixed pore structure provide pre- and fine filtration in the same cartridge	 High void volume for high dirt holding capacity and long service life Economical cost per filtered volume Lower disposal costs
Proprietary high strength center core for 3-10 micron grades, economical high strength extruded core for more open grades	Reliable even under high differential pressure conditions
All polypropylene construction without adhesives, binders, resins or silicone	 Broad chemical compatibility, suitable for use in a variety of fluids



Nexis T Filter Cartridges

Materials of Construction

Component	Description
Filter Medium	Polypropylene
Hardware	Polypropylene
SOE Style Cartridges only	
Adaptor	Polypropylene
O-Ring Seal	Silicone Elastomer Ethylene Propylene Rubber

Quality

- · Cartridges produced in a controlled environment
- Manufactured within a Quality Management System certified to ISO 9001:2008

Food Contact Compliance

Please refer to the Pall website www.pall.com/foodandbev for a Declaration of Compliance to specific National Legislation and/or Regional Regulatory requirements for food contact use.

Technical Information

Operating Characteristics in Compatible Fluids¹

Micron Rating	Maximum Differential Pressure ²	Operating Temperature
3-10 micron	1.03 bard (15 psid)	82 °C (180 °F)
	1.72 bard (25 psid)	66 °C (150 °F)
	4.14 bard (60 psid)	30 °C (86 °F)
20-200 micron	1.72 bard (25 psid)	60 °C (140 °F)
	3.45 bard (50 psid)	Ambient

¹ Fluids which do not swell, soften or adversely affect any of the filter components ² Recommended change-out differential pressure is 2.4 bard (35 psid), provided the maximum differential pressure (based on temperature) is not exceeded.

Flow Rates³

Flow rate (US gal/min) Flow rate (US gal/min) 2 6 10 4 8 1 2 3 4 5 6 7 8 9 10 0.7 400 Differential pressure (mbard) Differential pressure (mbard) 3 µm (pisid) Differential pressure (psid) 5 .04 0.6 300 Differential pressure Δ .03 75 μm 100 μm 04 200 3 5 µm 150 µm 200 µm 0.3 .02 2 100 0.2 10 µm .01 20 µm 0.1 0 Ω 0 10 20 40 30 n 0 0 4 8 12 16 20 24 28 32 36 Flow rate (L/min) Flow rate (L/min)

³ Typical initial clean delta p per 254 mm (10 inch) cartridge, water at 20 °C (68 °F). For liquids with viscosity greater than 1 cP, multiply the delta p by the viscosity.

Figure 1: Cutaway view of a Nexis filter, illustrating unique, proprietary CoLD Melt fiber technology for highly efficient contaminant removal, longer service life, and improved strength



Sterilization and Sanitization

- Single open end (SOE) cartridges may be autoclaved for 30 minutes at 121 °C (250 °F) under no end load conditions. Cartridges should be cooled to system operating temperatures prior to use.
- In situ steam sterilization is not recommended.

Core: varied core design, suitable for rigorous applications

Ordering Information

This information is a guide to the part numbering structure and possible options. For availability of specific options please contact Pall. Refer to Pall for housing details.



Example Part Number: NXT320UM7WS480

See bold reference codes in tables.

Table 1: Removal Rating⁴

Code	Description
3	3 µm
5	5 µm
10	10 µm
20	20 µm
30	30 µm
40	40 µm
50	50 µm
75	75 µm
100	100 µm
150	150 µm
200	200 µm

⁴ Nexis T filters provide a removal efficiency of 90% at the stated rating in compatible fluids. Particulate removal rating is determined by a single pass test based on ASTM F-795.

Table 2: Length

Code	Description
DOE Style only:	
4	102 mm (4")
5	127 mm (5")
975	248 mm (9.75")
9875	251 mm (9.875")
10	254 mm (10")
195	495 mm (19.5")
20	508 mm (20")
2925	743 mm (29.25")
295	749 mm (29.5")
30	762 mm (30")
39	991 mm (39")
395	1003 mm (39.5")
40	1016 mm (40")
SOE Style only:	
10	254 mm (10")
20	508 mm (20")
30	762 mm (30")
40	1016 mm (40")

Table 3: Adaptor

Code	Description
blank	DOE with no endcaps
M3	SOE - single open end with flat closed end and external 222 O-rings
M7	SOE - single open end with fin end, 2 locking tabs and external 226 O-rings
M8	SOE - single open end with fin end and external 222 O-rings

Table 4: O-ring Seal Material⁵

Code	Description
S	Silicone Elastomer
E	Ethylene Propylene Rubber

⁵ For M3, M7 and M8 styles only





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Please contact Pall Corporation to verify that the product conforms to your national legislation and/or regional regulatory requirements for water and food contact use.

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