Flotrex PN Pleated Filters

FACT SHEET

Pleated nominally-rated polypropylene microfiber filter

Features and Benefits

- Economical filtration design protects downstream final filters while maintaining system performance.
- 100% polypropylene construction provides superior chemical compatibility.
- Gradient density, thermally bonded polypropylene media delivers excellent dirt-holding capacity and reliable particle retention.
- Thermally welded construction eliminates adhesives/additives, reducing contamination
- Etched serial numbers on every filter provide accurate traceability and quality assurance.
- Batch integrity tested per ANSI/ASQC Z1.4-1993 maintains performance standards while enabling a more cost-effective filter.

Typical Applications

- Liquid polymers, coatings, and inks
- Bulk chemical filtration
- Beer trap filtration
- Post Carbon bed and DI bed filtration
- Pre-filtration to protect final filters and membranes

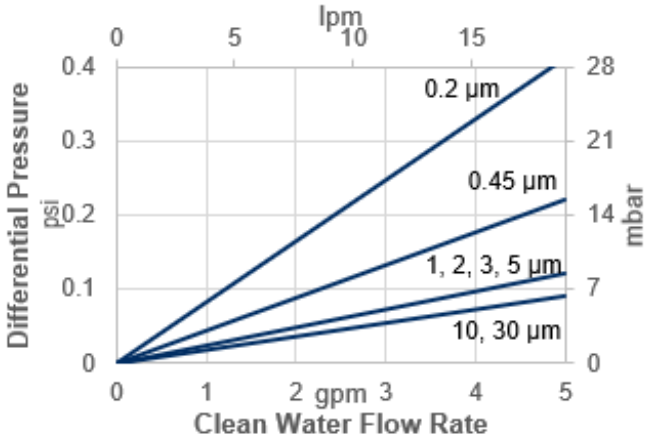
Specifications

Table 1: Filter construction and operational limits

Ratings	0.2, 0.45, 1, 2, 3, 5, 10, 30 microns (nominal)
Inner Diameter	1.25 in (3.2 cm)
Outer Diameter	2.75 in (7.0 cm)
Lengths (nominal)	5, 10, 20, 30, 40, 50 in
Materials of Construction	
Filtration Media:	Polypropylene Microfiber
Support Layers:	Polypropylene Microfiber
Core and Cage:	Polypropylene
Endcaps and adapters:	Polypropylene
Performance Conditions	
Flow:	Exterior to interior
Maximum forward differential pressure:	60 psid (4.1 bar) @ 70°F (21°C)
Maximum reverse differential pressure:	30 psid (2.1 bar) @ 70°F (21°C)
Maximum Operating Temperature:	180°F (82°C) at 10 psid (0.69 bar) in water

Table 2: Effective filtration area per 10-inch cartridge

Micron Rating	Effective Filtration Area
0.2 µm	5.0 ft^2 (0.47 m^2)
0.45 µm	6.9 ft^2 (0.64 m^2)
1, 2 µm	6.7 ft^2 (0.62 m^2)
2, 5 µm	5.9 ft^2 (0.55 m^2)
10, 30 µm	7.6 ft^2 (0.71 m^2)



Graph 1: Flotrex PN filter initial pressure drops across a 10-inch filter in clean water

Integrity Test Specifications

Table 3: Maximum allowable air flow rate based on integrity testing performed on a ten inch cartridge

Micron Rating	Air Flow Rate
0.2 µm	< 1000 cc/min at 20 in water (49.8 mbarg)
0.45 µm	< 1000 cc/min at 15 in water (37.3 mbarg)
1, 2 µm	< 1000 cc/min at 10 in water (24.9 mbarg)
2, 5 µm	< 1000 cc/min at 9 in water (22.4 mbarg)
10, 30 µm	< 1000 cc/min at 5 in water (12.4 mbarg)

Quality

Flotrex PN filters are manufactured under a quality management system. Each filter is etched with a lot number for its subassembly that enables tracing to a production date and shift. This lot number can also be found on the individual filter box label along with the filter description, part number, length, micron rating, seal type, part number, and manufacturing date. Each filter also comes with a certificate of Quality Assurance in the filter box containing additional information

Flotrex PN filters may be autoclaved or in situ steam sterilized (up to 257°F [125°C] 30-minute cycles) for a maximum accumulated exposure of 10 hours. Alternatively, the filters may be sanitized with compatible chemical agents.

Confirmation of endotoxin concentrations below 0.25 EU/mL may be available upon request, which could incur additional costs.

Veolia filter cartridges are designed and manufactured for resistance to a wide range of chemical solutions. Conditions will vary with each application and users should carefully verify chemical compatibility. Please contact your Veolia representative for more information.

Certifications

- Materials of construction meet FDA 21 CFR 177.1520
- ISO 9001:2015 certified processes

Directions for use

1. Follow site PPE, LOTO protocols, open housing
2. Store/dispose expired filters per local regulations
3. Lubricate gaskets on housing and filters as needed
4. Insert filters and close housing securely
5. Replace filter before max differential pressure

Ordering Information

Replace the numbers with your desired values from each column of Table 4.

Example: Flotrex PN = 961BBS

Table 4: Ordering information

	1	2	3	4	5
Type	**Micron Rating (nominal)**	**Cartridge Length**	**End #1 Adapter**	**End #2 Adapter**	**Elastomer Material**
Flotrex PN = FPN	92 = 0.2 µm 94 = 0.45 µm 01 = 1 µm 02 = 2 µm 03 = 3 µm 05 = 5 µm 10 = 10 µm 30 = 30 µm	05 = 5 in (12.7 cm) 1 = 10 in (25.4 cm) 2 = 20 in (50.8 cm) 3 = 30 in (76.2 cm) 4 = 40 in (101.6 cm) 5 = 50 in (127.0 cm)	A = Open End Gasket B = 120 O-Ring C = 213 O-Ring E = 222 O-Ring F = 226 O-Ring J = 020 O-Ring Q = 222 O-Ring (with SS Insert) Z = 226 O-Ring (with SS insert)	A = Open End Gasket B = 120 O-Ring C = 213 O-Ring G = Closed End Cap H = Fin Adapter	B = Buna-N E = EPDM S = Silicone T = Teflon (1) Encapsulated Viton (only in 222 and 226 sizes) V = Viton (1)

(1) Teflon and Viton are registered trademarks of The Chemours Company