



ADVANCED WATER ENGINEERING, INC.

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Polypropylene Microfiber TANK VENT filters

Features and Benefits

PN (FPN) series, filters are constructed with gradient density, thermally bonded polypropylene microfiber media for exceptional dirt holding capacity, long life and consistent particle retention.

PN (FPN) filters offer an economical solution for your filtration needs. The all-polypropylene construction of the FPN filters ensures superior chemical compatibility and low extractables in a wide variety of fluids and applications. The gradient density, thermally bonded polypropylene media has excellent dirt holding capacities, reliable retention characteristics, and do not release fibers. Constructed in a clean room environment using thermal welding techniques, the FPN filters do not contain any adhesives or additives. AWE, Inc is your complete source for filters, housings, and other filtration equipment. Our extensive portfolio includes filters for every stage of processing, and we can offer custom



Applications

FPN filters are an economical alternative to membrane filters in a broad range of applications, including:

- Filtration of liquid polymers, coatings, and inks
- Filtration of bulk chemicals
- Final filtration of beverages
- Post Carbon bed and DI bed filtration
- Pre-filtration to protect expensive final filters

Available Absolute Pore Size Ratings

0.2, 0.45, 1, 2, 3, 5, 10, and 30 micron

Materials of Construction

- **Filtration Media** .Polypropylene Microfiber
- **Support Layers** .Polypropylene Microfiber
- **Core and Cage** .Polypropylene
- **Endcaps and Adapters** .Polypropylene

Dimensions

<u>Filter Model</u>	<u>Nominal O.D.</u>	<u>Nominal I.D.</u>	<u>Effective Area</u>
FPN92	<u>2.75" (70 mm)</u>	<u>1.25" (31 mm)</u>	<u>5.2 ft² (0.48 m²)</u>
FPN94	<u>2.75" (70 mm)</u>	<u>1.25" (31 mm)</u>	<u>6.1 ft² (0.57 m²)</u>
FPNO1, FPNO2	<u>2.75" (70 mm)</u>	<u>1.25" (31 mm)</u>	<u>6.7 ft² (0.62 m²)</u>
FPNO3, FPNO5	<u>2.75" (70 mm)</u>	<u>1.25" (31 mm)</u>	<u>6.9 ft² (0.64 m²)</u>
FPN10, FPN30	<u>2.75" (70 mm)</u>	<u>1.25" (31 mm)</u>	<u>7.2 ft² (0.67 m²)</u>

Operational Limits

- **Maximum Forward Differential Pressure: -60 psi (4.14 bar)**
- **Maximum Reverse Differential Pressure: ₃₀ psi (2.07 bar)**
- **Maximum Operating Temperature: ₁₈₀°F (82°C) at 10 psid (0.69 bar) in water**

Sterilization

PN filters may be autoclaved (121°C, 30 minute cycles) or in situ steam sterilized (125°C, 30 minute cycles) for a maximum accumulated exposure of 10 hours. Alternatively, the filters may be sanitized with compatible chemical agents.

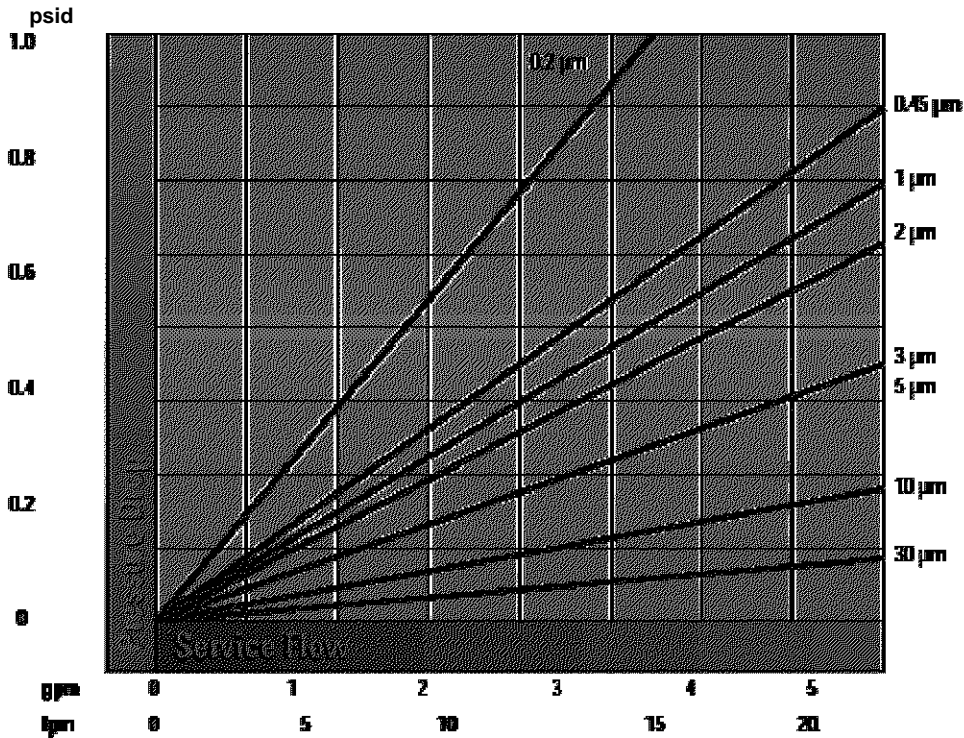
Biosafety

The component materials of PN filters are suitable for use in articles intended for repeated food contact as specified in the USP Regulations, Title 21. PN filters meet the test criteria for USP24 Class VI-121°C Plastics and pass the MEM Elution Cytotoxicity Test.

Extractables

Aqueous extracts from PN filters contain less than 0.25 EU/ml. The filters typically exhibit low levels of non-volatile residues.

Flow Performance in Clean Water



based on 10" cartridge

ORDERING INFORMATION

Type	Nominal Micron Rating	Cartridge Length	End #1 Adapter	End #2 Adapter	Elastomer Material
FPN	92 = 0.2µm 94 = 0.45µm 01 = 1.0µm 02 = 2.0µm 03 = 3.0µm 05 = 5.0µm 10 = 10.0µm 30 = 30.0µm	1 = 10 Inch 2 = 20 Inch 3 = 30 Inch 4 = 40 Inch	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 Stainless Steel Support Ring Z = 226 O-Ring Stainless Steel Support Ring	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* Encapsulated (Only in 222 and 226 Sizes) V = Viton**

PN series cartridges hydrophobic nature exclusively allows them to be used in air filtering applications such as storage tank venting against algae and bacteria when used in an Ametek® style housing modified to End #1 Adapter specifications.

Pressure drops of less than 1 psi are exhibited in 10” cartridge lengths for less than 15 cfm and 20” lengths less than 45 cfm.