

Flow-Max[®] HP Series Filter Cartridges

High efficiency pleated filter cartridges

Flow-Max HP series filter cartridges are cost effective, disposable, filter elements for a wide range of applications. Flow-Max HP cartridges are constructed of highly efficient pleated polypropylene filter media with extended filter area to provide high flow rates, low pressure drop and increased dirt holding capacity.

Features

- 100% polypropylene
- Ratings from 0.2 to 50 micron
- FDA listed polypropylene components
- Removal efficiencies to 99.98%
- High surface area
- Long service life & reduced maintenance costs
- Fixed pore construction for reliability

Application

- High purity water
- Traps for DI resin
- Electronics
- Pre filtration for RO
- Magnetic tape coatings
- Aqueous solutions
- Plating solutions
- Chemicals
- Cosmetics
- Inks
- Food & beverage
- Bottled water
- Edible oils
- Waste water

Specifications

Components	Data
Filter media	Polypropylene
End caps	Polypropylene
Center tubes	Polypropylene
Cage	Polypropylene
Gaskets & o-rings	EPDM, standard. (Buna-N, Viton and Silicone are optional.)
Micron ratings	0.2, 0.45, 1, 2, 5, 10, 25 & 50
Operating temperature	175° F (80° C) maximum
Collapse pressure	130 psid (8.9 bar) maximum
Change out	35 psid (2.4 bar) maximum
FDA	All materials comply with FDA 174.5, 177.1520 & 177.1630 for contact with foods & beverages

Dimensions

Nominal lengths	4-7/8", 9-3/4", 10", 20", 30" & 40"
Outside diameter	2.5" (6.35 cm)
Inside diameter	1.0" (2.54 cm)

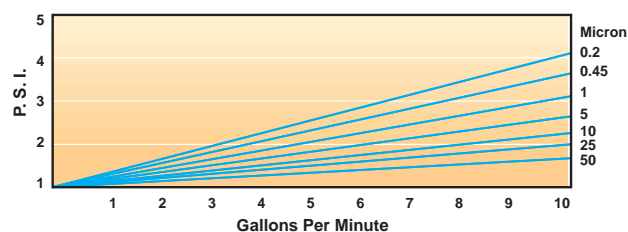


Filter removal efficiency

Beta ratio	10000	5000	100	50	10
Efficiency	99.99%	99.98%	99%	98%	90%
0.2 micron	0.35	0.2	0.1	----	----
0.45	0.6	0.45	0.3	0.2	----
1 micron	1.2	1.0	0.6	0.3	0.25
2 micron	2.5	2.0	1.5	1.0	0.8
5 micron	8.0	5.0	4.0	3.0	2.0
10 micron	13.0	10.0	8.0	7.0	5.0
25 micron	32.0	25.0	19.0	15.0	13.0
50 micron	66.0	50.0	44.0	32.0	26.0

Relative performance data were developed using laboratory tests, which may be used for guidelines in cartridge selection. The single-pass test method was used with particle counters and 3 GPM flow per 10" cartridge. Results vary, and actual field tests may be necessary to determine final cartridge selection.

Initial pressure drop per 10" cartridge



DOE



222 or 226 / Flat



222 or 226 / Fin

Flow-Max[®] HP Series Filter Cartridges

Product code	Micron	Length	End Cap	No./case	Ship weight
FPP-0.2-975-DOE	0.2	9-3/4"	DOE	24	12 lbs.
FPP-0.2-20-DOE	0.2	20"	DOE	12	11 lbs.
FPP-0.2-30-DOE	0.2	30"	DOE	12	17 lbs.
FPP-0.2-40-DOE	0.2	40"	DOE	12	21 lbs.
FPP-0.2-10-222	0.2	10"	222 / flat	24	12 lbs.
FPP-0.2-20-222	0.2	20"	222 / flat	12	11 lbs.
FPP-0.2-30-222	0.2	30"	222 / flat	12	17 lbs.
FPP-0.2-40-222	0.2	40"	222 / flat	12	21 lbs.
FPP-0.2-10-222F	0.2	10"	222 / fin	24	12 lbs.
FPP-0.2-20-222F	0.2	20"	222 / fin	12	11 lbs.
FPP-0.2-30-222F	0.2	30"	222 / fin	12	17 lbs.
FPP-0.2-40-222F	0.2	40"	222 / fin	12	21 lbs.
FPP-0.45-975-DOE	0.45	9-3/4"	DOE	24	12 lbs.
FPP-0.45-20-DOE	0.45	20"	DOE	12	11 lbs.
FPP-0.45-30-DOE	0.45	30"	DOE	12	17 lbs.
FPP-0.45-40-DOE	0.45	40"	DOE	12	21 lbs.
FPP-1-975-DOE	1	9-3/4"	DOE	24	12 lbs.
FPP-1-20-DOE	1	20"	DOE	12	11 lbs.
FPP-1-30-DOE	1	30"	DOE	12	17 lbs.
FPP-1-40-DOE	1	40"	DOE	12	21 lbs.
FPP-1-10-222	1	10"	222 / flat	24	12 lbs.
FPP-1-20-222	1	20"	222 / flat	12	11 lbs.
FPP-1-30-222	1	30"	222 / flat	12	17 lbs.
FPP-1-40-222	1	40"	222 / flat	12	21 lbs.
FPP-1-10-222F	1	10"	222 / fin	24	12 lbs.
FPP-1-20-222F	1	20"	222 / fin	12	11 lbs.
FPP-1-30-222F	1	30"	222 / fin	12	17 lbs.
FPP-1-40-222F	1	40"	222 / fin	12	21 lbs.
FPP-5-975-DOE	5	9-3/4"	DOE	24	12 lbs.
FPP-5-20-DOE	5	20"	DOE	12	11 lbs.
FPP-5-30-DOE	5	30"	DOE	12	17 lbs.
FPP-5-40-DOE	5	40"	DOE	12	21 lbs.
FPP-5-10-222	5	10"	222 / flat	24	12 lbs.
FPP-5-20-222	5	20"	222 / flat	12	11 lbs.
FPP-5-30-222	5	30"	222 / flat	12	17 lbs.
FPP-5-40-222	5	40"	222 / flat	12	21 lbs.
FPP-5-10-222F	5	10"	222 / fin	24	12 lbs.
FPP-5-20-222F	5	20"	222 / fin	12	11 lbs.
FPP-5-30-222F	5	30"	222 / fin	12	17 lbs.
FPP-5-40-222F	5	40"	222 / fin	12	21 lbs.

Note: 2, 10, 25, and 50 micron ratings are also available by special order. (Substitute micron rating at appropriate place in product code.) Standard gaskets and o-rings are EPDM. Buna-N, Viton and Silicone are also available. (For special gaskets or o-rings, add "B" for Buna-N, "V" for Viton or "S" for Silicone at end of product code.) For 226 cartridges, substitute "226" for "222".

Flow-Max[®] Membrane Filter Cartridges

Absolute rated polyethersulfone membrane filter cartridges

Flow-Max membrane filter cartridges provide high efficiency filtration because they are constructed using hydrophilic polyethersulfone membrane media with a fixed pore size for highly consistent filtration.

Features

- Fixed pore size for consistency
- Absolute rated media
- FDA listed components
- High dirt holding capacity
- Each cartridge is integrity tested

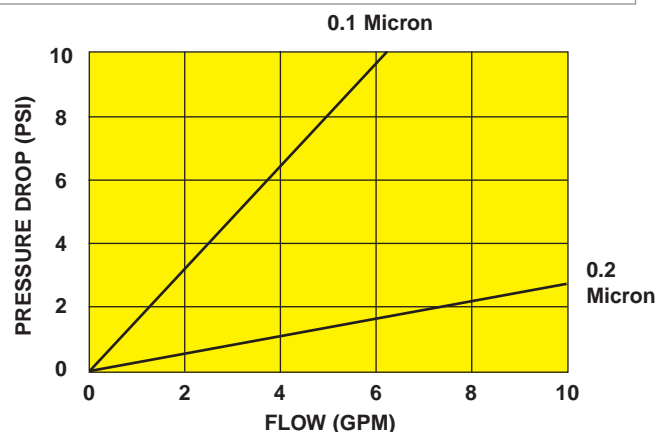


Specifications

Media	Asymmetric Polyestersulfone membrane
Center tubes, end caps, cage	Polypropylene
Gaskets & o-rings	Buna-N, Silicone, Viton or Teflon
Micron ratings	0.1 and 0.2
Nominal lengths	9-3/4", 10", 20", 30", 40"
Outside diameter	2.5" (6.35 cm)
Inside diameter	1.0" (2.54 cm)
Maximum operating temperature	122°F (50°C)
Maximum collapse pressure	130 psid at 70°F; 40 psid at 175°F
Recommended change out	35 psid (2.4 bar)
Chemical compatibility	Will resist most acids and bases with a pH range from 1 to 14
Sanitizing agents	Cartridges may be sanitized in place with common oxidizing agents
Sterilization	Cartridges are autoclavable at 126°C for one hour

Applications

- Food
- Beverage
- Cosmetics
- Chemicals
- Aqueous solutions
- Ink
- Acids
- Solvents
- Bases
- Ultra pure water



Product codes

Product Code	Micron	Length	End cap	O-rings	No. / Case
FMMC-01-10-222	0.1 Abs.	10"	222	Viton	1
FMMC-01-20-222	0.1 Abs.	20"	222	Viton	1
FMMC-01-30-222	0.1 Abs.	30"	222	Viton	1
FMMC-01-40-222	0.1 Abs.	40"	222	Viton	1
FMMC-02-10-222	0.2 Abs.	10"	222	Viton	1
FMMC-02-20-222	0.2 Abs.	20"	222	Viton	1
FMMC-02-30-222	0.2 Abs.	30"	222	Viton	1
FMMC-02-40-222	0.2 Abs.	40"	222	Viton	1

Note: Additional lengths, micron ratings and o-rings are available. Please inquire.

FLOW-PRO[®]

MELT BLOWN FILTER CARTRIDGES



Features & benefits

- Low cost
- Excellent chemical resistance
- Food grade for food and beverages
- No media migration
- High dirt holding capacity
- Wide range of lengths
- Five micron ratings

Specifications

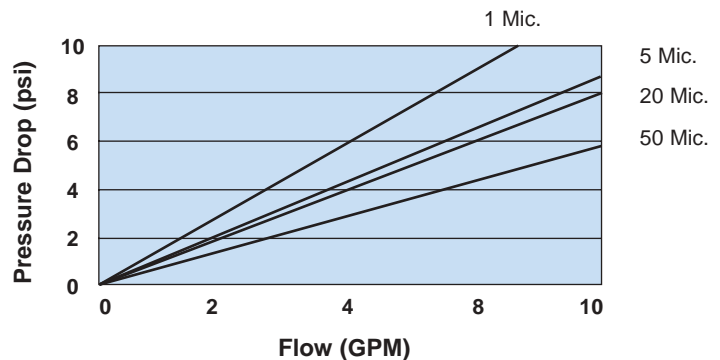
Material	Melt blown polypropylene
Maximum temperature	140° F / 60° C
Maximum pressure	40 PSID
Recommended change out	30 PSID
Maximum flow rate	2-8 GPM based on micron
Cartridge packaging	Shrink wrapped for purity

Applications

- Potable water
- Beverages
- Pre-filtration for RO
- Fine chemicals
- Electronics
- Metal finishing
- Plating solutions
- And more!



ANSI / NSF
STANDARD 42
COMPONENT
CERTIFIED



Flow-Pro® Melt Blown Cartridges



ANSI / NSF
STANDARD 42
COMPONENT
CERTIFIED

Standard diameter (2-1/2") 5"

Part Number	Length	OD	Micron	No. / case
FPMB1-5	5"	2-1/2"	1	48
FPMB5-5	5"	2-1/2"	5	48
FPMB20-5	5"	2-1/2"	20	48
FPMB50-5	5"	2-1/2"	50	48

9-7/8"

FPMB1-978	9-7/8"	2-1/2"	1	48
FPMB5-978	9-7/8"	2-1/2"	5	48
FPMB10-975	9-7/8"	2-1/2"	10	48
FPMB20-978	9-7/8"	2-1/2"	20	48
FPMB25-978	9-7/8"	2-1/2"	25	48
FPMB50-978	9-7/8"	2-1/2"	50	48

20"

FPMB1-20	20"	2-1/2"	1	24
FPMB5-20	20"	2-1/2"	5	24
FPMB20-20	20"	2-1/2"	20	24
FPMB50-20	20"	2-1/2"	50	24

29-1/4"

FPMB5-2925	29-1/4"	2-1/2"	5	24
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30"

FPMB1-30	30"	2-1/2"	1	24
FPMB5-30	30"	2-1/2"	5	24
FPMB20-30	30"	2-1/2"	20	24
FPMB50-30	30"	2-1/2"	50	24

40"

FPMB1-40	40"	2-1/2"	1	24
FPMB5-40	40"	2-1/2"	5	24
FPMB20-40	40"	2-1/2"	20	24
FPMB50-40	40"	2-1/2"	50	2

Full-Flow (B-B) 9-3/4" x 4-1/2" O.D. cartridges

Part Number	Length	OD	Micron	No. / case
FPMB-BB1-10	9-3/4"	4-1/2"	1	24
FPMB-BB5-10	9-3/4"	4-1/2"	5	24
FPMB-BB20-10	9-3/4"	4-1/2"	20	24
FPMB-BB50-10	9-3/4"	4-1/2"	50	24

Full-Flow (B-B) 20"x 4-1/2" O.D. cartridges

Part Number	Length	OD	Micron	No. / case
FPMB-BB1-20	20"	4-1/2"	1	12
FPMB-BB5-20	20"	4-1/2"	5	12
FPMB-BB20-20	20"	4-1/2"	20	12
FPMB-BB50-20	20"	4-1/2"	50	12

Flow-Pro® Grooved Melt Blown Cartridges

Grooved for more surface area and greater dirt holding capacity.



Specifications

Material	Melt blown polypropylene
Maximum temperature	140° F / 60° C
Maximum pressure	40 PSID
Recommended change out	30 PSID
Maximum flow rate	2-8 GPM based on micron
Cartridge packaging	Shrink wrapped for purity

Grooved cartridges for increased surface area

Part Number	Length	OD	Micron	No. / case
FPMBG-1-975	9-3/4"	2-1/2"	1	48
FPMBG-5-975	9-3/4"	2-1/2"	5	48
FPMBG-10-975	9-3/4"	2-1/2"	10	48
FPMBG-20-975	9-3/4"	2-1/2"	20	48
FPMBG-1-20	20"	2-1/2"	1	24
FPMBG-5-20	20"	2-1/2"	5	24

Wound Filter Cartridges

Exceptional value when depth filtration is required.



Features & benefits

- Low cost
- Polypropylene media for chemical resistance
- Food grade ingredients for potable water
- No leachables to contaminate downstream
- Wide range of lengths and micron ratings
- Cartridges with stainless steel center tubes for temperature applications

Product Number	Length	OD	Micron	No. / case
SF1-978	9-7/8"	2-1/2"	1	30
SF5-978	9-7/8"	2-1/2"	5	30
SF20-978	9-7/8"	2-1/2"	20	30
SF50-978	9-7/8"	2-1/2"	50	30
SF1-20	20"	2-1/2"	1	15
SF5-20	20"	2-1/2"	5	15
SF20-20	20"	2-1/2"	20	15
SF50-20	20"	2-1/2"	50	15
SF1-30	30"	2-1/2"	1	15
SF5-30	30"	2-1/2"	5	15
SF20-30	30"	2-1/2"	20	15
SF50-30	30"	2-1/2"	50	15
SF1-40	40"	2-1/2"	1	10
SF5-40	40"	2-1/2"	5	10
SF20-40	40"	2-1/2"	20	10
SF50-40	40"	2-1/2"	50	10

Full-Flow (BB) 4-1/2" OD cartridges

Product Number	Length	OD	Micron	No. / case
SF1-10-425	9-3/4"	4-1/2"	1	8
SF5-10-425	9-3/4"	4-1/2"	5	8
SF20-10-425	9-3/4"	4-1/2"	20	8
SF50-10-425	9-3/4"	4-1/2"	50	8
SF1-20-425	20"	4-1/2"	1	4
SF5-20-425	20"	4-1/2"	5	4
SF20-20-425	20"	4-1/2"	20	4
SF50-20-425	20"	4-1/2"	50	4

Wound cartridges with 304 stainless steel center tubes for temperatures to 200°F (93°C)

Product Number	Length	OD	Micron	No. / case
MS10FS5	9-7/8"	2-1/2"	5	30
MS10FS20	9-7/8"	2-1/2"	20	30
MS10FS50	9-7/8"	2-1/2"	50	30
MS20FS5	20"	2-1/2"	5	15
MS20FS20	20"	2-1/2"	20	15
MS20FS50	20"	2-1/2"	50	15
MS30FS5	30"	2-1/2"	5	15
MS30FS20	30"	2-1/2"	20	15
MS30FS50	30"	2-1/2"	50	15
MS40FS5	40"	2-1/2"	5	10
MS40FS20	40"	2-1/2"	20	10
MS40FS50	40"	2-1/2"	50	10

Flow-Max[®] Phenolic Cellulose Cartridges

Ideal for high temperature industrial water and oil filtration.



Specifications

Maximum temperature	250°F (121°C)
Minimum temperature	-20°F (-29°C)
Maximum pressure	70 PSID (482 k PA)
Recommended change out	25 PSID (172 k PA)
End caps, cores, outer body	Electro plated tin
Media	Phenolic impregnated cellulose

Standard 2-1/2" OD x 9-3/4" length with electro tin plated outer body

Part Number	OD	Length	Micron	No. / case
FMPIC-5-975	2-1/2"	9-3/4"	5	30
FMPIC-20-975	2-1/2"	9-3/4"	20	30
FMPIC-50-975	2-1/2"	9-3/4"	50	30

Standard 2-1/2" OD x 20" length with electro tin plated outer body

Part Number	OD	Length	Micron	No. / case
FMPIC-5-20	2-1/2"	20"	5	15
FMPIC-20-20	2-1/2"	20"	20	15
FMPIC-50-20	2-1/2"	20"	50	15

Standard 2-1/2" OD x 30" length with electro tin plated outer body

Part Number	OD	Length	Micron	No. / case
FMPIC-5-30	2-1/2"	30"	5	12
FMPIC-20-30	2-1/2"	30"	20	12
FMPIC-50-30	2-1/2"	30"	50	12

Jumbo Model 40 (7-3/4" x 9-5/8")

Part Number	OD	Length	Micron	No. / case
FMPIC-40-5-HT	7-3/4"	9-5/8"	5	1
FMPIC-40-20-HT	7-3/4"	9-5/8"	20	1
FMPIC-40-50-HT	7-3/4"	9-5/8"	50	1

Jumbo Model 90 (7-3/4" x 19-1/2")

Part Number	OD	Length	Micron	No. / case
FMPIC-90-5-HT	7-3/4"	19-1/2"	5	1
FMPIC-90-20-HT	7-3/4"	19-1/2"	20	1
FMPIC-90-50-HT	7-3/4"	19-1/2"	50	1

Jumbo Model 170 (7-3/4" x 30-3/4")

Part Number	OD	Length	Micron	No. / case
FMPIC-170-5-HT	7-3/4"	30-3/4"	5	1
FMPIC-170-20-HT	7-3/4"	30-3/4"	20	1
FMPIC-170-50-HT	7-3/4"	30-3/4"	50	1

Note: Phenolic impregnated cellulose cartridges are not to be used for potable water. Jumbo cartridges fit in Flow-Max jumbo housings only.

Stainless Steel Filter Cartridges

Pleated and cylindrical cartridges for high temperatures & aggressive chemicals.

Applications

- High temperatures
- High pressures
- Water
- Oil
- Solvents
- Aggressive chemicals

Specifications	Data
Maximum temperature	250°F (121°C)
Minimum temperature	-67°F
Maximum pressure	60 PSID
Recommended change out	30-40 PSID
Media, end caps, cores	304 stainless steel
Gaskets	Buna-A (other options available)



Types

Pleated cartridges for increased surface area, longer life and greater dirt holding capacity

Part Number	Type	OD	Material	Length	Micron	No. / case
FMSSCP-10-975	Pleated	2-3/4"	304	9-3/4"	10	1
FMSSCP-40-975	Pleated	2-3/4"	304	9-3/4"	40	1
FMSSCP-100-975	Pleated	2-3/4"	304	9-3/4"	100	1
FMSSCP-150-975	Pleated	2-3/4"	304	9-3/4"	150	1
FMSSCP-190-975	Pleated	2-3/4"	304	9-3/4"	190	1
FMSSCP-10-20	Pleated	2-3/4"	304	20"	10	1
FMSSCP-40-20	Pleated	2-3/4"	304	20"	40	1
FMSSCP-100-20	Pleated	2-3/4"	304	20"	100	1
FMSSCP-150-20	Pleated	2-3/4"	304	20"	150	1
FMSSCP-190-20	Pleated	2-3/4"	304	20"	190	1

Standard end gaskets are Buna-A. Viton and Teflon are available. Additional lengths are available.

Cylindrical Cartridges

Part Number	Type	OD	Material	Length	Micron	No. / case
FMSSCC-10-975	Cylindrical	2-3/4"	304	9-3/4"	10	1
FMSSCC-40-975	Cylindrical	2-3/4"	304	9-3/4"	40	1
FMSSCC-100-975	Cylindrical	2-3/4"	304	9-3/4"	100	1
FMSSCC-150-975	Cylindrical	2-3/4"	304	9-3/4"	150	1
FMSSCC-190-975	Cylindrical	2-3/4"	304	9-3/4"	190	1
FMSSCC-10-20	Cylindrical	2-3/4"	304	20"	10	1
FMSSCC-40-20	Cylindrical	2-3/4"	304	20"	40	1
FMSSCC-100-20	Cylindrical	2-3/4"	304	20"	100	1
FMSSCC-150-20	Cylindrical	2-3/4"	304	20"	150	1
FMSSCC-190-20	Cylindrical	2-3/4"	304	20"	190	1

Note: Standard end gaskets are Buna-N. Viton and Teflon are available. Additional lengths and micron rating are available.

Oil Reduction Cartridges

Removes oil, gasoline and other hydrocarbons from water in a single pass!



Hydrocarbon removal cartridges are engineered to remove oil, gasoline, diesel fuel, solvents, sheen, and other hydrocarbons from water in a single pass by permanently bonding them to our absorbent media, without significant pressure drop even when the cartridges have been fully saturated.

Applications

- Manhole effluent
- Storm runoff water
- Tank farms & terminals
- Bilge & ballast water
- Tramp oil removal from machining fluids
- Plating baths
- Parts washing
- Oil spill remediation projects

Specifications

Filter media	Melt blown polypropylene, infused with hydrocarbon absorbent material
Initial pressure drop	1.5 psid (at 5 GPM per 9-3/4" x 2-1/2" cartridge)
Capacity (per 9-3/4" x 2-1/2")	200 grams, oil & grease
Capacity (per 9-3/4" x 4-1/2")	900 grams, oil & grease
Maximum flow rate (per 9-3/4" x 2-1/2")	5 GPM
Maximum flow rate (per 9-3/4" x 4-1/2")	20 GPM
Micron rating (for sediment removal)	5 micron
Maximum temperature limit	140°F (60°F)

Part Numbers for 2-1/2" OD cartridges

Part Number	Length	OD	Micron rating	Number Per Case
FPHRC-975	9-3/4"	2-1/2"	5	12
FPHRC-20	20"	2-1/2"	5	20
FPHRC-30	30"	2-1/2"	5	20

Part Numbers for 4-1/2" OD cartridges

Part Number	Length	OD	Micron rating	Number Per Case
FPHRC-BB-975	9-3/4"	4-1/2"	5	12
FPHRC-BB-20	20"	4-1/2"	5	20

Note: All cartridges are packaged in protective, barrier bags to ensure top quality performance.