

## Marksman™ PFT Series Filter Elements

### High Capacity Pleated Polypropylene Filter Elements

- New, larger cartridge geometry
- High flow capacity
- Poly-Fine® II proprietary media for highly consistent filtration
- Inside-out flow traps contaminant inside the element
- Available to fit most Size 1 and Size 2 bag vessels with no hardware changes
- Available in 101.6 cm (40 in) for use in unique 101.6 cm (40 in) Pall vessels
- Unique sealing device adjusts to fit in most conventional bag filter vessels
- High surface area for long service life
- All polypropylene construction
- Wide chemical compatibility

### Performance Specifications

#### Filter grades

1, 3, 5, 10, 20, 40, 70, 90, 150 micron (µm)

#### Maximum operating differential pressure

to 5.2 bard @ 20°C (75 psid @ 68°F)

to 2.4 bard @ 74°C (35 psid @ 165°F)

NOTE: Stainless steel flange recommended for temperatures in excess of 43°C (110°F).

#### Recommended change-out differential pressure<sup>1</sup>

2.4 bard @ up to 54°C (35 psid @ up to 130°F)

#### Food and water contact use

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.

#### Purity

Cartridges do not use surfactants, binders, and adhesives.

#### Sanitization

Contact Pall Corporation for assistance.



### Product Specifications

#### Materials of construction

Filter media:	Polypropylene
Hardware:	Polypropylene
Support material:	Polypropylene
Gaskets:	EPDM, fluorocarbon elastomer, nitrile
Sealing:	Thermal bond

#### Dimensions (nominal)

Outside flange diameter:	Three diameters are available. Contact Pall for information on sizes.
Outside filter diameter:	15.2 cm (6 in)
Lengths:	Size 1 Size 2 Size 4 - 101.6 cm (40 in)

<sup>1</sup> Provided that the maximum differential pressure is not exceeded based on temperature limits defined above.

## Particle Removal Ratings<sup>2</sup> (µm)

Cartridge Designation	90% Efficiency	≥99.9% Efficiency
PFTM 1	1	—
PFTM 3	2	—
PFTM 5	—	5
PFTM 10	—	9
PFTM 20	—	15
PFTM 40	20	—
PFTM 70	—	70
PFTM 90	57	—
PFTM 150	—	145

## Typical Flow

Filter Grade	mbard/lpm (psid/gpm) Water @ 20°C (68°F)		
	Size 1	Size 2	40 in
1	0.838 (0.046)	0.364 (0.020)	0.273 (0.015)
3	0.346 (0.019)	0.164 (0.008)	0.109 (0.006)
5	0.109 (0.006)	0.054 (0.003)	0.018 (0.001)
10	0.054 (0.003)	0.018 (0.001)	0.018 (0.001)
20	0.036 (0.002)	0.018 (0.001)	0.018 (0.001)
40	0.018 (0.001)	0.018 (0.001)	0.018 (0.001)
70	0.018 (0.001)	0.018 (0.001)	0.018 (0.001)
90	0.018 (0.001)	0.018 (0.001)	0.018 (0.001)
150	0.018 (0.001)	0.018 (0.001)	0.018 (0.001)

NOTE: For kPa, multiply mbard/lpm by 0.1.

<sup>2</sup> Marksman PFT series filter cartridge retention ratings are based on Pall's Dynamic Efficiency test protocol. This single pass, destructive challenge test is based on ASTM F-795 test procedures for determining the performance of a filter medium. Fine test dust is used as the test contaminant for filters in the 1 to 20 micron range. Coarse test dust is used for micron ratings above 20 micron. Additional information can be obtained by contacting Pall Corporation. NOTE: PFTM grade designations for 1, 3, 40, and 90 based on Beta 10 values, and all other grade designations are based on Beta 1000 values.

<sup>3</sup> Pall Marksman "Fit-up" kits are available to help select the best sealing flange/gasket style. Contact your Pall representative for more information.

<sup>4</sup> Rosedale is a registered trademark of Rosedale Products, Inc.

<sup>5</sup> Krystil Klear is a registered trademark of Pentair Water Filtration.

<sup>6</sup> GAF is a registered trademark of GAF Corporation.

<sup>7</sup> Hayward is a registered trademark of Hayward Industrial Products, Inc.

## Ordering Information

Pall Part Number = PFTM 1 2 - 3 U 4 - 5 6

Table 1

Code	Length option
Blank	Standard

Table 2

Code	Filter grades (µm)
1	1
3	3
5	5
10	10
20	20
40	40
70	70
90	90
150	150

Table 3

Code	Cartridge lengths nominal
1	Size 1 bag
2	Size 2 bag
4	101.6 cm (40 in)

Table 4

Code	Gasket materials
Blank	For NF version
N	Nitrile
E	EPDM (peroxide cured)
V	Fluorocarbon elastomer

Table 5

Code	End configurations
PF	Plastic self-adjusting flange
SF	Stainless steel self-adjusting flange (required for temperatures >43°C/110°F)
NF	No flange (for use with reusable SS flange)

Table 6

Code	Flange/gasket styles <sup>3</sup>
A	Pall Marksman Series vessels, Rosedale <sup>4</sup> , Strainrite, Krystil Klear <sup>5</sup>
B	FSI BFNP Series vessels (side entry), GAF <sup>6</sup>
C	FSI FSPN Series vessels (prior to June 2012), Hayward <sup>7</sup> over the top
F	FSI FSPN Series vessels (from June 2012)
CB	FSI CBFP Series vessels <sup>8</sup>

<sup>8</sup> Installation of Marksman cartridge with CB flange requires an additional housing hold down plate as follows:


Part Number	Description
ERA286666C	CBFP 11/12 Hold-Down Plate, Stainless Steel, 2" Inlet
ERA286667C	CBFP 11/12 Hold-Down Plate, Stainless Steel, 3" Inlet

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Because of technological developments related to the products, systems, and/or services described herein, the data and procedures are subject to change without notice. Please consult your Pall representative or visit [www.pall.com](http://www.pall.com) to verify that this information remains valid.

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