

## Marksman™ DFN Series Filter Elements

### High Capacity Pleated Glass Filter Elements

- New, larger cartridge geometry
- High flow capacity
- Inside-out flow traps contaminant inside the element
- Available to fit most Size 1 and Size 2 bag housings with no hardware changes
- Available in 101.6 cm (40 in) for use in unique 101.6 cm (40 in) Marksman housings
- Unique sealing device adjusts to fit in most bag filter housings
- High surface area for long service life
- Micro-fiberglass Duo-Fine® media (with acrylic binder)
- Polypropylene end caps, polyester support and outer netting
- Wide chemical compatibility
- Short length option to accommodate shorter baskets



### Performance Specifications

#### Filter grades

1.5, 3, 10, 20, 40 micron (µm)

#### Maximum operating differential pressure

to 2.9 bard @ 20°C (42 psid @ 68°F)

to 1.0 bard @ 79°C (15 psid @ 175°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)

### Product Specifications

#### Materials of construction

Filter media:	Borosilicate micro fiberglass with acrylic binder
Hardware:	Polypropylene end caps, Polyester outer netting
Support material:	Spunbonded polyester
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 - Standard, Short Size 2 - Standard, Short, Extra Short 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
DFNM 1.5	0.9	1.6
DFNM 3	1.0	1.9
DFNM 10	2.8	9.3
DFNM 20	9.5	17.0
DFNM 40	17.0	37.0

## Typical Flow

Filter Grade	mbard/lpm (psid/gpm) Water @ 20°C (68°F)		
	Size 1	Size 2	40 in
1.5	0.21 (0.011)	0.09 (0.005)	0.05 (0.003)
3	0.09 (0.005)	0.04 (0.002)	0.02 (0.001)
10	0.06 (0.003)	0.03 (0.001)	0.02 (0.001)
20	0.04 (0.002)	0.02 (0.001)	0.02 (0.001)
40	0.04 (0.002)	0.02 (0.001)	0.02 (0.001)

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

<sup>2</sup> Marksman DFN 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.

<sup>3</sup> Size 2 (only).

<sup>4</sup> Select "XS" for Extra Short, "2" for Size 2 bag, and add "68" to the end of the part number (e.g., DFNMXS1-2UN-PFC 68).

<sup>5</sup> For housings not listed or other than original equipment baskets, consult your Pall sales representative for proper flange/gasket style.

## Ordering Information

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

Table 1

Code	Short length option
Blank	Standard
S	Short
XS	Extra short <sup>3, 4</sup>

Table 2

Code	Filter grades (µm)
1.5	1.5
3	3
10	10
20	20
40	40

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>5</sup>
A <sup>6</sup>	Rosedale <sup>7</sup> , Strainrite, Krystil Klear <sup>8</sup> , Pall
B	GAF <sup>9</sup> , FSI <sup>10</sup> side entry
C	FSI over the top, Hayward <sup>11</sup> over the top

<sup>6</sup> Requires "A" flange if using any of the Marksman 101.6 cm (40 in) products in the 101.6 cm (40 in) Pall Marksman housing.

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

<sup>8</sup> Krystil Klear is a registered trademark of Pentair Water Filtration.

<sup>9</sup> GAF is a registered trademark of GAF Corporation.

<sup>10</sup> FSI is a registered trademark of Filter Specialists, Inc.

<sup>11</sup> Hayward is a registered trademark of Hayward Industrial Products, Inc.

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



Pall Corporation

25 Harbor Park Drive  
Port Washington, NY 11050  
+1 516 484 3600 telephone  
+1 800 289 7255 toll free US

Portsmouth - UK  
+44 (0)23 9230 3303 telephone  
+44 (0)23 9230 2507 fax  
processuk@pall.com

### Visit us on the Web at [www.pall.com](http://www.pall.com)

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