

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 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
- Micro-fiberglass Duo-Fine® media (with acrylic binder)
- Polypropylene end caps and outer netting, polyester support
- Wide chemical compatibility

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 pressure¹

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 and 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 Size 2 Size 4 - 101.6 cm (40 in)

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

Particle Removal Ratings² (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.

² 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.

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

⁴ Rosedale is a registered trademark of Rosedale Products, Inc.

⁵ Krystil Klear is a registered trademark of Pentair Water Filtration.

⁶ GAF is a registered trademark of GAF Corporation.

⁷ Hayward is a registered trademark of Hayward Industrial Products, Inc.

⁸ 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

Ordering Information

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

Table 1

Code	Length option
Blank	Standard

Table 2

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

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



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 9233 8000 telephone
+44 (0)23 9233 8811 fax
industrialeu@pall.com

Filtration. Separation. Solution.SM

Visit us on the Web at www.pall.com

Pall Corporation has offices and plants throughout the world. For Pall representatives in your area, please go to www.pall.com/contact.

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 to verify that this information remains valid.

© Copyright 2006, 2016 Pall Corporation. Pall, , FSI, Duo-Fine, and Marksman are trademarks of Pall Corporation. ® indicates a trademark registered in the USA.
Filtration. Separation. Solution.SM is a service mark of Pall Corporation.

PIMARKSDFNENC

Produced in the USA

August 2016