

Description

The P-Nylon EX filter is specifically designed to target defects in the next generation lithography process. The Nylon Effect, which has proven to significantly reduce microbridge and cone defect in 193 nm resist and BARC chemicals, can now be applied to all lithography applications. The increased adsorption functionality and improved flow performance enhance the removal of hardly soluble polymer components. (almost 4 times increased gel capture capacity compared to the conventional Ultiplet® P-Nylon filter) This enhanced adsorption will contribute to further defect reduction.

Features and Benefits

- Naturally hydrophilic (no surface modifications)
- Low extractables
- Enhanced adsorption capabilities
- Reduces defects by optimizing filter “Contact Time”
- Wide range of available configurations
 Disposable filter capsule: PHD, DDF
 Filter cartridge: ABD



Specifications

Materials

Components	Materials
Medium	Hydrophilic Asymmetric Nylon6,6
Support and Drainage	High Density Polyethylene (HDPE)
Core, Cage, and End Caps	High Density Polyethylene (HDPE)
Housing ¹	High Density Polyethylene (HDPE)
O-ring options ²	PHD12, PHD13 : Perfluoroelastomer ABD1 : FEP encapsulated fluoroelastomer

Specifications

Filter Areas	PHD12 : 1,100 cm ² , PHD13 : 2,200 cm ² DDF1 : 1,600 cm ² , DDF2 : 3,300 cm ² , ABD1 : 9,400 cm ²
Maximum Operating Temperature	PHD12, PHD13, DDF1, DDF2 : 30 °C / 86 °F ABD1 : 50 °C / 120 °F
Maximum forward differential pressure	PHD12, PHD13, DDF1, DDF2 : 0.29 MPa @ 30 °C / 42 psi @ 86 °F ABD1 : 0.27 MPa @ 20 °C / 40 psi @ 68 °F
Maximum Operating Pressure ³	0.29 MPa @ 30 °C / 42 psi @ 86 °F

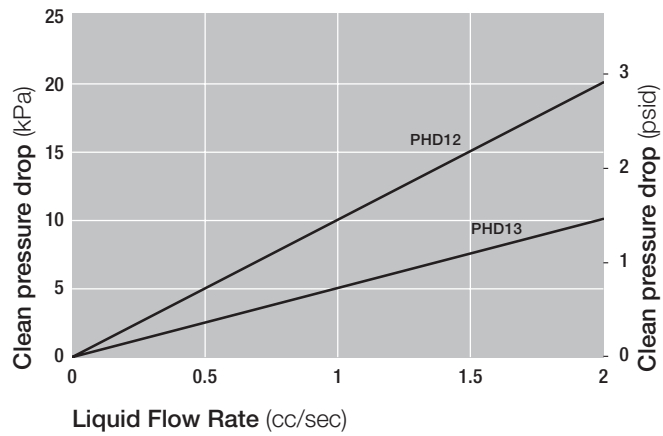
¹ PHD12, PHD13, DDF1 and DDF2 capsules

² PHD12, PHD13, capsules and ABD1 cartridges

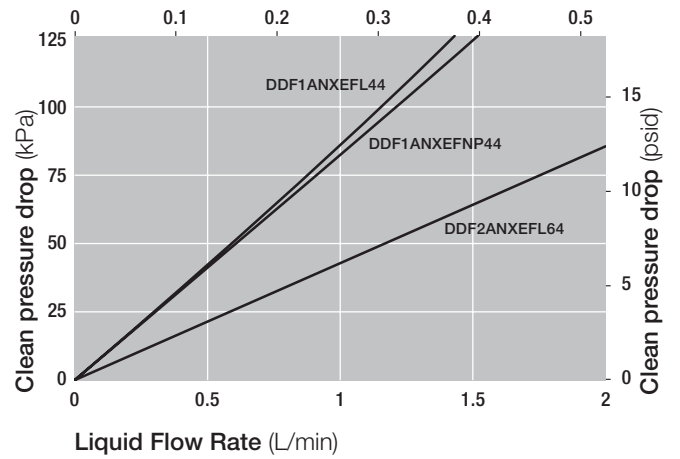
³ PHD12, PHD13, DDF1 and DDF2 capsules

Typical Flow Characteristics – 1 cP fluid, 20 °C

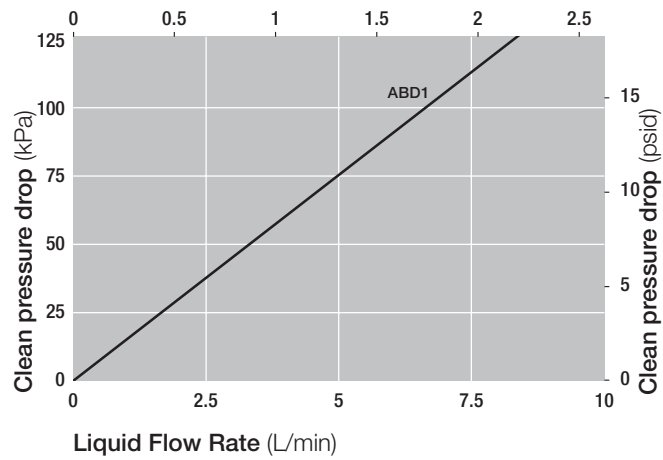
Disposable filter capsule (PHD)



Disposable filter capsule (DDF)

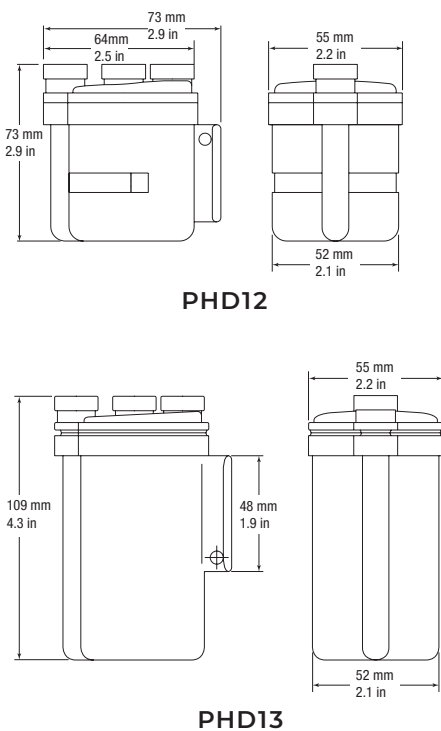


Filter cartridge

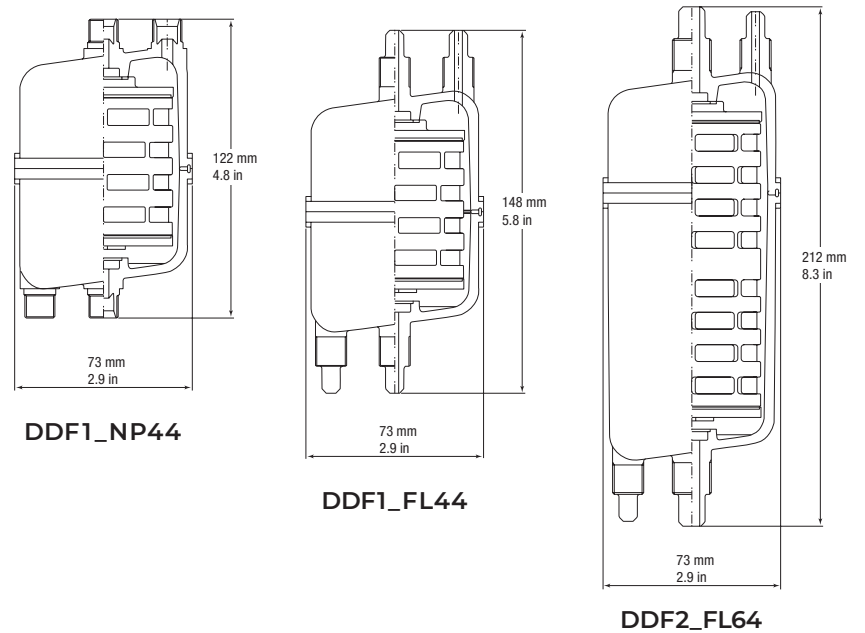


Dimensions

Disposable filter capsule (PHD)



Disposable filter capsule (DDF)



Part Numbers / Ordering Information⁵

Part Number	Nominal Length (mm / in)	Configuration	O-Ring Material or Capsule Connections
PHD12ANXE11B	73 / 2.9	Disposable Capsule	Perfluoroelastomer
PHD13ANXE11B	109 / 4.3	Disposable Capsule	Perfluoroelastomer
DDF1ANXENP44	122 / 4.8	Disposable Capsule	1/4" Super Pillar ⁴ / 1/4" Super Pillar
DDF1ANXEFL44	148 / 5.8	Disposable Capsule	1/4" Flare style / 1/4" Flare style
DDF2ANXEFL64	212 / 8.3	Disposable Capsule	3/8" Flare style / 1/4" Flare style
ABD1ANX3EH1	254 / 10	Code 3 cartridge 222 double O-ring / flat end	FEP encapsulated fluoroelastomer
ABD1ANX8EH1	254 / 10	Code 8 cartridge 222 double O-ring / finned end	FEP encapsulated fluoroelastomer
ABD2ANX3EH1	508 / 20	Code 3 cartridge 222 double O-ring / flat end	FEP encapsulated fluoroelastomer
ABD2ANX8EH1	508 / 20	Code 8 cartridge 222 double O-ring / finned end	FEP encapsulated fluoroelastomer

⁴ Pillar is a trademark of Nippon Pillar Packing Co., Ltd

⁵ For XP treatment option, add -XP to the end of a part number for PHD and DDF



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