



Pall Corporation

Profile® Star Filter Cartridges for Ink Jet Ink Formulation



Pall Ink Jet Team



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MEPSTAREN



Innovative filter design for high efficiency filtration of ink jet inks

The Profile® Star ink jet filter is an all-polypropylene pleated depth filter that combines the exceptional dirt-holding capacity of the Profile II medium with the high flow rates of the HDC® II pleated medium. While the Profile Star filter has a pressure drop and flow capability that are comparable to many competitive pleated polypropylene filters, it also provides excellent removal of contaminants such as gels and agglomerates. The Profile medium has been designed to minimize strip-out of desirable colorant and to improve removal of oversized contaminants. As particle size increases, the removal performance of this medium increases dramatically. The medium also features a graded pore density to maximize void volume and service life.

Description

- Absolute-rated¹ pleated depth filters with all-polypropylene construction.
- Four nominal filter lengths: 254 mm / 10 in, 508 mm / 20 in, 762 mm / 30 in, and 1016 mm / 40 in.
- Absolute removal ratings from 0.8 µm to 90 µm.
- Single-open-ended and double-open-ended styles, with different configurations available.

Features	Advantages	Benefits
Sharp cutoff for particle size	Excellent classification filter	Effective removal of oversized contaminant without stripping colorant
Absolute-rated filter media	Consistent, repeatable filtration	Consistent ink quality from batch to batch
All-polypropylene construction	Excellent compatibility with most ink systems	Can be applied over a wide range of inks
Pleated construction	Higher flow rates than typical depth filter cartridges	Improved ink production speed
Free of surfactants, binders, and mold release agents	Low extractables in most ink systems	Filter will not affect critical ink properties
Pleated depth filter media	Exceptional dirt-holding capacity and long service life	Low filtration cost per gallon/liter
Fixed pore structure	Solids will not unload during variations in flow or pressure	Permanently traps contaminants

¹ The removal ratings in this publication are based on the modified OSU-F2 test. Contact your Pall representative for additional information.



Technical Information

Materials of Construction

Filter media	Polypropylene
Core, cages and endcaps	Polypropylene
Gaskets/O-rings	Ethylene propylene (EPR)

Operating Conditions

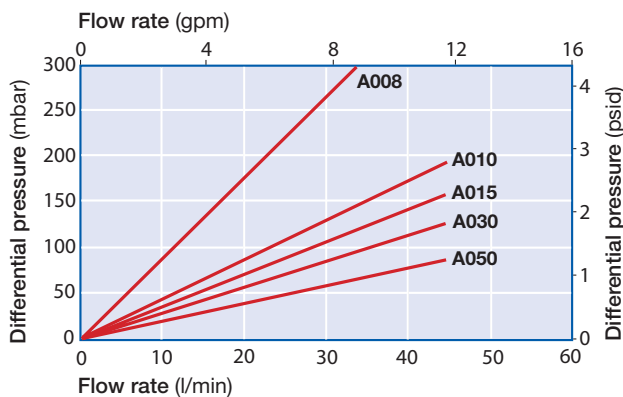
Operating temperature and maximum differential pressures in compatible fluids.²

Operating Temperature	Maximum Differential Pressure
80°C / 176°F	3.4 bard / 49.3 psid
50°C / 122°F	5.0 bard / 72.5 psid

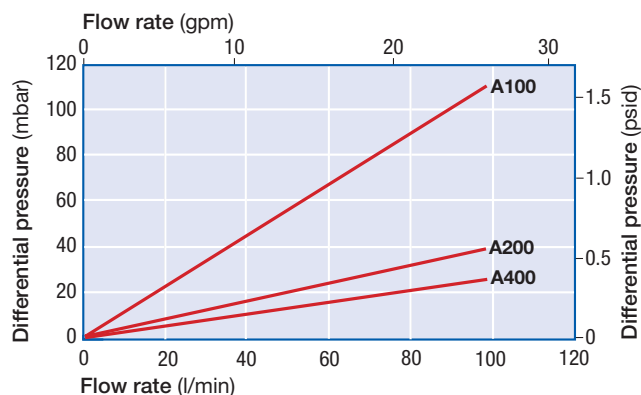
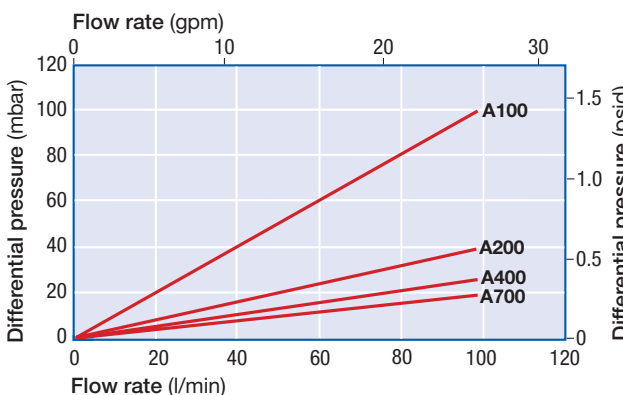
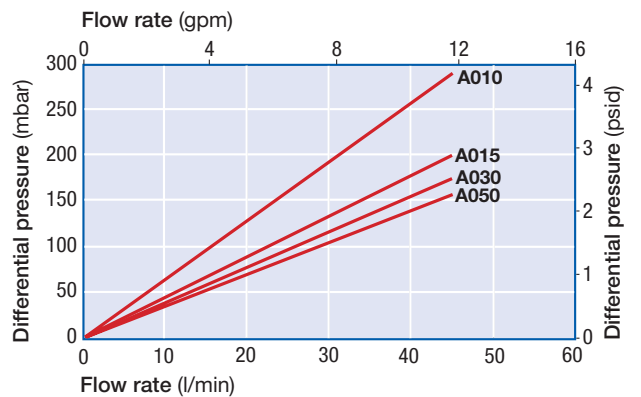
² Fluids that do not soften, swell or adversely affect the filter or materials of construction.

Typical Liquid Flow Rate vs. Differential Pressure³

AB/MCY 1000 Configuration



PUY Configuration



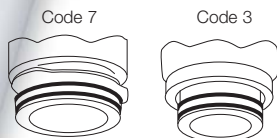
³ For liquids with viscosities differing from water, multiply the pressure drop by the viscosity in cP.



Ordering Information / Part Numbers⁴

Profile Star ink jet filters are available in three styles, each with a different configuration. In addition, Laboratory Test Filters are also available in most removal ratings. Please contact Pall for more information.

AB Style – Single-open-ended, 70 mm / 2-¾ in diameter, with dual external O-ring seals.



AB ■ ● ▼ ◆

(example: AB1A0103J)

Code ■	Nominal Length (mm / in)
1	254 / 10
2	508 / 20
3	762 / 30
4	1016 / 40

MCY1001 Style – Double-open-ended, 70 mm / 2-¾ in diameter, with flat gaskets.



MCY100 ■ ● ◆

(example: MCY1001A015J)

Code ●	Removal Rating ¹ (µm)
A008	0.8
A010	1
A015	1.5
A030	3
A050	5
A100	10
A150	15
A200	20
A400	40
A700	70
A900	90

PUY Style – Double-open-ended, 64 mm / 2-½ in diameter, with flat gaskets.



PUY ■ ● ◆

(example: PUY1A015J)

Code ▼	Cartridge Style
3	Pall Code 3 double O-ring with flat end (70mm / 2-¾ in diameter)
7	Pall Code 7 double O-ring with bayonet lock and finned end (70mm / 2-¾ in diameter)

Code ◆	Gasket Option
J	Ethylene propylene (EPR)
H4	Silicone
	Other materials are available on request

¹ The removal ratings in this publication are based on the modified OSU-F2 test. Contact your Pall representative for additional information.

⁴ This is a guide to the part numbering structure only. For availability of specific options, please contact your Pall representative.



Microelectronics
25 Harbor Park Drive
Port Washington, NY 11050

+1 516 484 3600 phone
+1 800 360 7255 toll free US
+1 516 625 3610 fax
inkjet@pall.com

Visit us on the Web at www.pall.com

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