



Pall Corporation

DFAC Filter Capsules for Digital Printing Systems



Pall Ink Jet Team



Filtration. Separation. Solution.SM

MEDFACEN



Large-capacity capsule filters for ink jet ink filtration and critical printhead protection on larger digital printing systems

The DFAC filter capsule is a large-capacity, self-contained filter developed for larger digital printing systems that require increased ink flow rates. This filter capsule extends the capabilities of the DFA capsule with new features specifically for the digital printing market. Among these features is an opaque exterior shell to protect against UV-light intrusion, large-bore connections to minimize pressure loss, and a wide range of industry-accepted media appropriate for most digital printing applications. Two capsule sizes are available, with twice and four times the capacity of the popular Multiple Application Capsule (MAC). Filter media offerings include Profile® Star media and HDC® II media in six grades, with ratings from 3 µm to 20 µm.

Key Features

- Compact assembly with high flow capacity filter**
 The DFAC filter capsule features both a compact assembly and a pleated filter with high flow capability. This is a critical combination in high-flow recirculating ink systems, where consistent flow rates are required for accurate jetting.
- Opaque capsule**
 The black polypropylene exterior housing protects against UV light and prevents ink from curing inside the filter. This capsule is also suitable for ink chemistries that are not UV curable.
- Key media options for digital printing**
 Profile Star and HDC II filter media are available. Profile Star media is an industry standard, with excellent gel-retention capability and long life. HDC II media has a pleated, high-area design with excellent flow rates.
- Easy change large-bore connections**
 Large-bore inlet and outlet connections are present in both size capsules to minimize pressure loss. The standard connections are Swagelok*-compatible compression fittings, with available 6 mm and 8 mm connections.
- Venting capability**
 The heavy-duty, compression-fitting vents allow for venting at start-up (recommended) or periodic venting as needed, or serve as connections for continuous venting, if required.
- All-polymeric construction**
 The all-polypropylene construction of the filter capsule makes it suitable for use with most ink jet ink formulations.

*Swagelok is a trademark of Swagelok Company.

Features	Advantages	Value
Filter media consistent with other Pall ink jet capsules	Seamless scale-up with industry-accepted filter media	Fewer transition issues when developing new printer platforms
Rugged Swagelok-compatible compression-fitting connections	Easy and quick filter change; no fitting change required	Minimal ink loss and printer downtime
Binders, glues, and mold release agents not used	Low extractables from filter components	No changes to ink properties from additional materials
Compact capsule with minimal dead space	Rapid capsule priming at start-up	Reduced ink loss and printer downtime
Rugged, molded-in vent connections	Able to vent quickly at start-up and/or continuously during operation	Virtually eliminates air entrapment during operation



Technical Information

Materials of Construction

Filter media	Polypropylene
Core and endcaps	Polypropylene
Housing	Polypropylene with a carbon black colorant

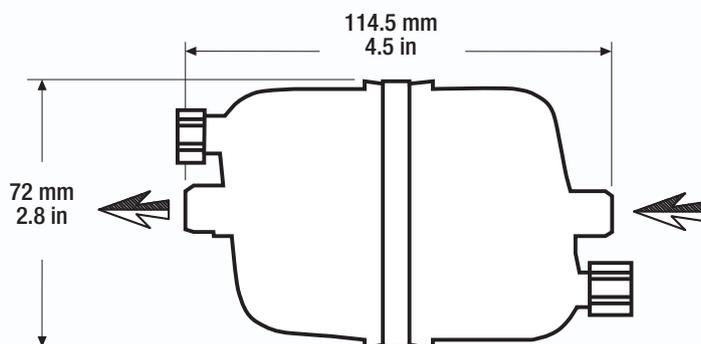
Operating Conditions¹

Maximum allowable pressure	4.1 bar / 60 psi @ 38°C / 100°F
Maximum allowable temperature	50°C / 122°F

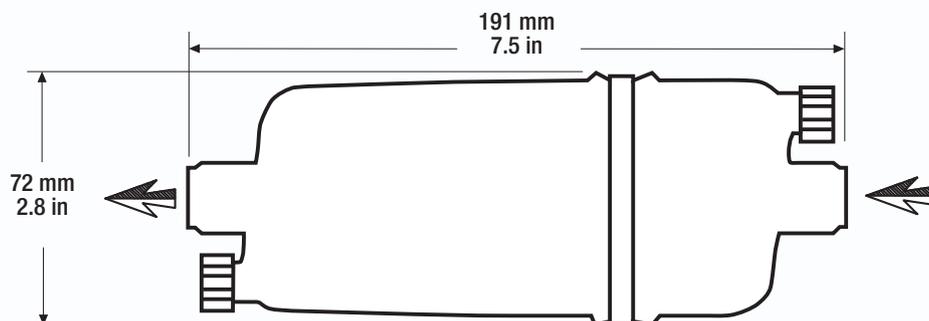
¹ Fluids that do not soften, swell or adversely affect the filter or materials of construction.

Dimensions

DFAC1 Capsule



DFAC2 Capsule



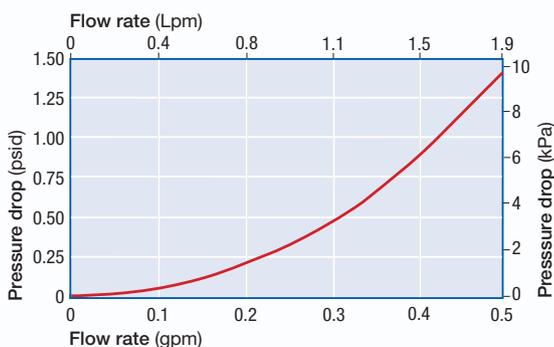


Technical Information

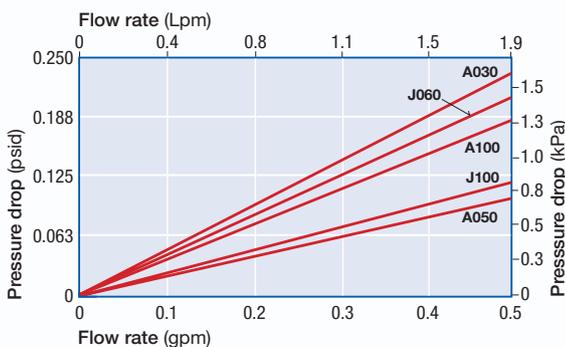
Typical Liquid Flow Rate vs Differential Pressure

To approximate differential pressure, add the values for capsule pressure drop and module pressure drop for the selected media grade. For liquids with higher viscosities than water, multiply the module pressure drop by the viscosity in centipoise before adding the capsule pressure drop.

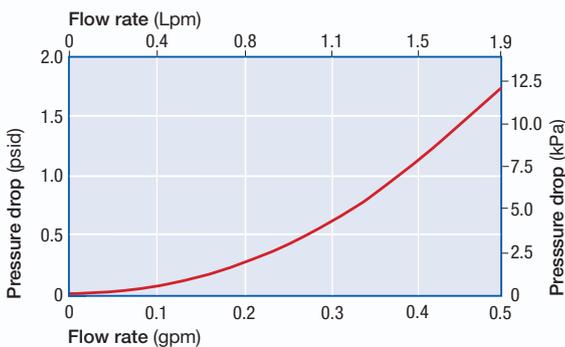
DFAC1 Capsule Pressure Drop in Water



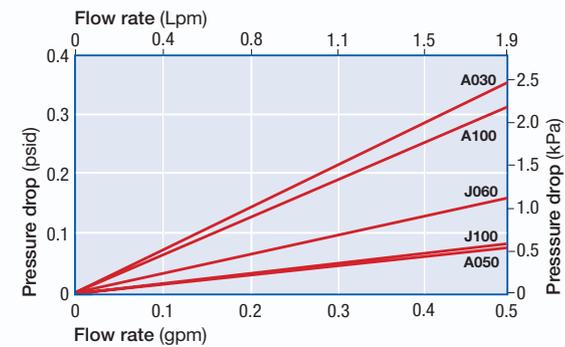
DFAC1 Module Pressure Drop in Water



DFAC2 Capsule Pressure Drop in Water



DFAC2 Module Pressure Drop in Water



Filter Media Options

Profile® Star Media

- Hybrid pleated depth filter
- Excellent gel removal and retention
- Primary recommendation for digital printing systems



HDC® II Media

- High-area pleated construction
- Low pressure drop
- High flow-rate capacity





Ordering Information / Part Numbers²

DFAC1 Capsules

Opaque capsules with 6 mm Swagelok-compatible inlet and outlet connections and 4 mm Swagelok-compatible vents and drains. Individually bagged and bulk packaged (48 per case).

Part Number	Removal Rating ³
Profile Star Media	
DFAC5301A030	3 µm
DFAC5301A050	5 µm
DFAC5301A100	10 µm
DFAC5301A200	20 µm
HDC II Media	
DFAC5301J060	6 µm
DFAC5301J100	10 µm

DFAC2 Capsules

Opaque capsules with 8 mm Swagelok-compatible inlet and outlet connections and 4 mm Swagelok-compatible vents and drains. Individually bagged and bulk packaged (24 per case).

Part Number	Removal Rating ³
Profile Star Media	
DFAC2A030SW84M	3 µm
DFAC2A050SW84M	5 µm
DFAC2A100SW84M	10 µm
DFAC2A200SW84M	20 µm
HDC II Media	
DFAC2J060SW84M	6 µm
DFAC2J100SW84M	10 µm

² This is a guide to the part numbering structure only. For availability of specific options, please contact your local Pall representative.

³ The removal ratings in this publication are based on the modified OSU-F2 test. Please contact your Pall representative for additional information.



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