

SEPAREL For Jet Ink

Hollow Fiber Membrane Module For Jet Ink

The hollow fiber membrane developed in DIC is suitable for degassing of jet ink; preventing ink from passing through the hollow fiber membrane, allowing only gas to pass through.

Why degassing is necessary for jet ink?

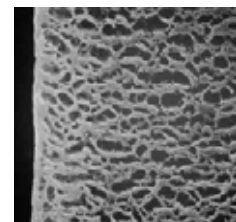
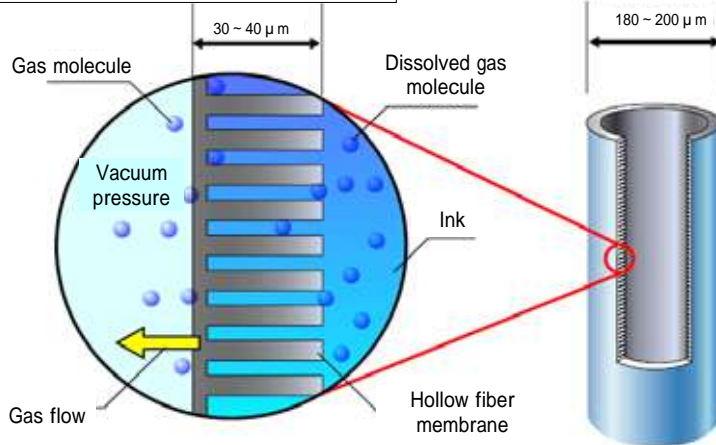
In the print head, air bubbles generated by the dissolved gas clog nozzles and inks don't jet. (Even if inks jet, inks don't jet straight. So, as a result, printing quality becomes worse.)

To solve this problem, removing dissolved gas is necessary.

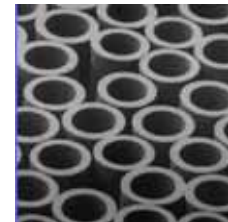
Hollow fiber membrane

- Use of the original hollow-fiber membrane (SS membrane) with skin layers on the surface.
- Large reduction in the amount of water vapor passing through the SS membrane in comparison with microporous membranes.

Material : PMP (Poly-4-methylpentene-1)
Manufacturing method : Molten molding method



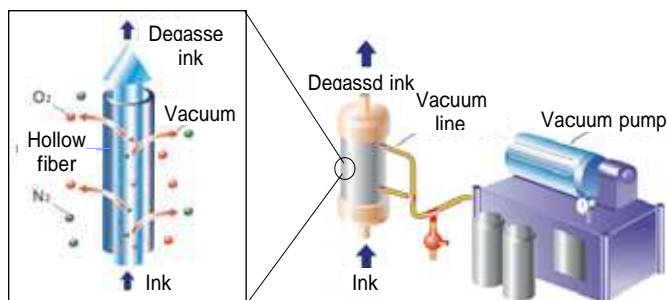
< Cross-section of a hollow fiber >



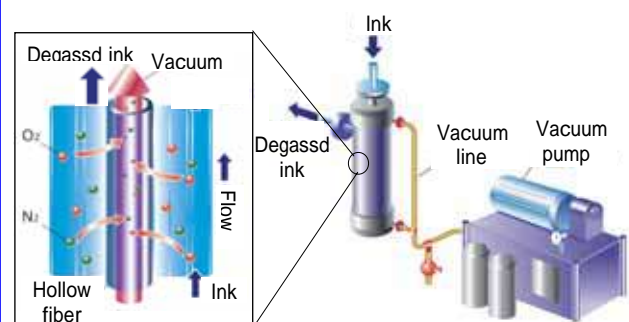
< Cross-section of a hollow fiber bundle >

Degassing principles

Internal Flow



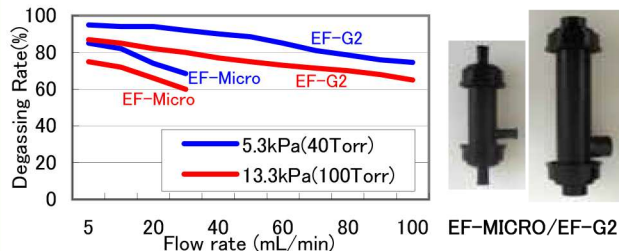
External Flow



Performance Data

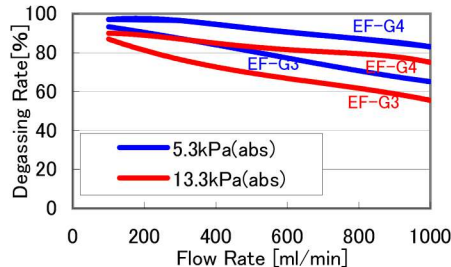
EF-G2, MICRO

Degassing performance <Water, 25°C>



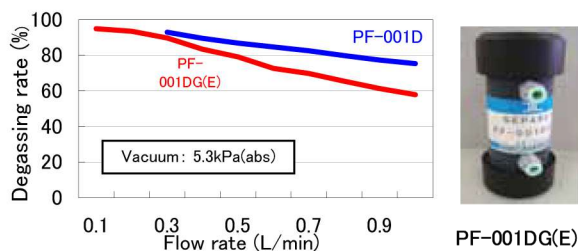
EF-G3, EF-G4

Degassing performance <Water, 25°C>



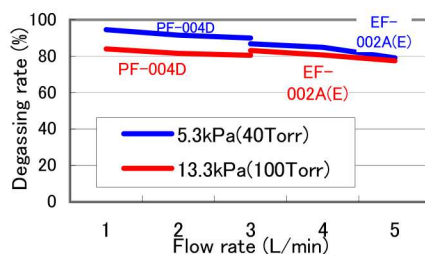
PF-001DG(E), PF-001D

Degassing Performance <Water, 25°C>



PF-004D, EF-002A(E)

Degassing Performance <Water, 25°C>



PRODUCTS		PF-001D	PF-001DG(E)	PF-004D	EF-MICRO	EF-G2	EF-G3	EF-G4	EF-002A (EPOXY)
Type of target ink		Water-base			Water-base/UV				
Flow method		Internal Flow			External flow				
Dimension*1	mm	80φ × 140	60φ × 143	99φ × 260	22φ × 94	26φ × 115	43φ × 131	60φ × 143	109φ × 182
Hollow fiber diameter (ID/OD)	μm	100/180	100/180	100/180	100/180	100/180	100/180	100/180	100/180
Flow rate	ml/min	~1000	~1000	~3000	~20	~100	~1000	~1500	~4000
Membrane area	m ²	0.5	0.4	4	-	-	0.2	0.5	1.8
Pressure resistance MPa		0.3	0.2	0.3	0.1	0.2	0.2	0.2	0.3
Operating temperature °C		2~40	2~45	2~40	2~45	2~45	2~45	2~45	2~45
Material	Hollow fiber	PMP	PMP	PMP	PMP	PMP	PMP	PMP	PMP
	Housing	PP	PP	PP	PP	PP	PP	PP	PP
	End cap	PP	PP	PP	PP	PP	PP	PP	PP
	Adhesive	PU	Epoxy	PU	Epoxy	Epoxy	Epoxy	Epoxy	Epoxy
Connection	Connection port	Rc 1/4	Rc 1/4	Rc 3/8	Lure fitting	NPT 1/8	Rc 1/8	Rc 1/4	Rc 3/8
	Vacuum port	φ6 tube fitting	φ6 tube fitting	φ6 tube fitting	Lure fitting	NPT 1/8	Rc 1/8	Rc 1/4	Rp 1/4

*1 Except for connectors

Manufacturing / Sale

DIC Corporation

Membrane Division

7-20, Nihonbashi 3-chome, Chuo-ku Tokyo

103-8233, JAPAN

TEL +81-(3)5203-7798 FAX +81-(3)3241-6540

● Specifications may change without notice.

● Please check compatibility between ink and materials of degassing module before start using.

Warranty applies only to ink which DIC confirmed its compatibility.



Gesfilter, S.L.

Distribuidor Oficial España

Avenida Cerdanyola, 92-94 Local B4

08173 - Sant Cugat del Vallès - Barcelona

Tel: 935921554 - Email: comercial@gesfilter.com

www.gesfilter.com

DIC makes every effort to ensure that the information in this manual is accurate and up-to-date. However, by nature the contents of this publication are for general information purpose only, no warranty is expressed or implied to the contents or their accuracy; Liability for reliance thereon is specifically disclaimed. Customers should seek qualified advice as to individual circumstances.