

Filters

AND MOBILE PHASE FILTERS

Filters trap foreign particulates from sample and mobile phase streams before they can damage valuable columns and instruments.

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High pressure filters

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In-line filter cartridges

Low pressure

SPECS

- Materials
Cartridge: PTFE/CTFE
Filter screen: 316 stainless
- 1/4-28 detail
- Dimensions
OD 5.20 mm
Thickness 2.03 mm
Bore 0.8 mm
Filter surface diameter 2 mm
- Tolerances
±0.05 mm (.002")

- Easy to replace
- Compact design
- Fit all 1/4-28 fitting details
- Three porosity options

These convenient-to-use filters can be simply dropped into any 1/4-28 fitting detail, such as in a union. The filters are constructed of PTFE and CTFE, with a Type 316 stainless low-pressure-drop screen. The inner design of the cartridge ensures the equal distribution of the solvent to the screen.

Pore size	Maximum flow rate *	Qty/pkg	Product No.
2 µm	30 ml/min	5	JR-CFE-S2-5
10 µm	30 ml/min	5	JR-CFE-S10-5
75 µm	30 ml/min	5	JR-CFE-S75-5



NOTES

* Flowrate measured with methanol/water (1:1), ultrasonic degassed, helium sparging to prevent regassing.

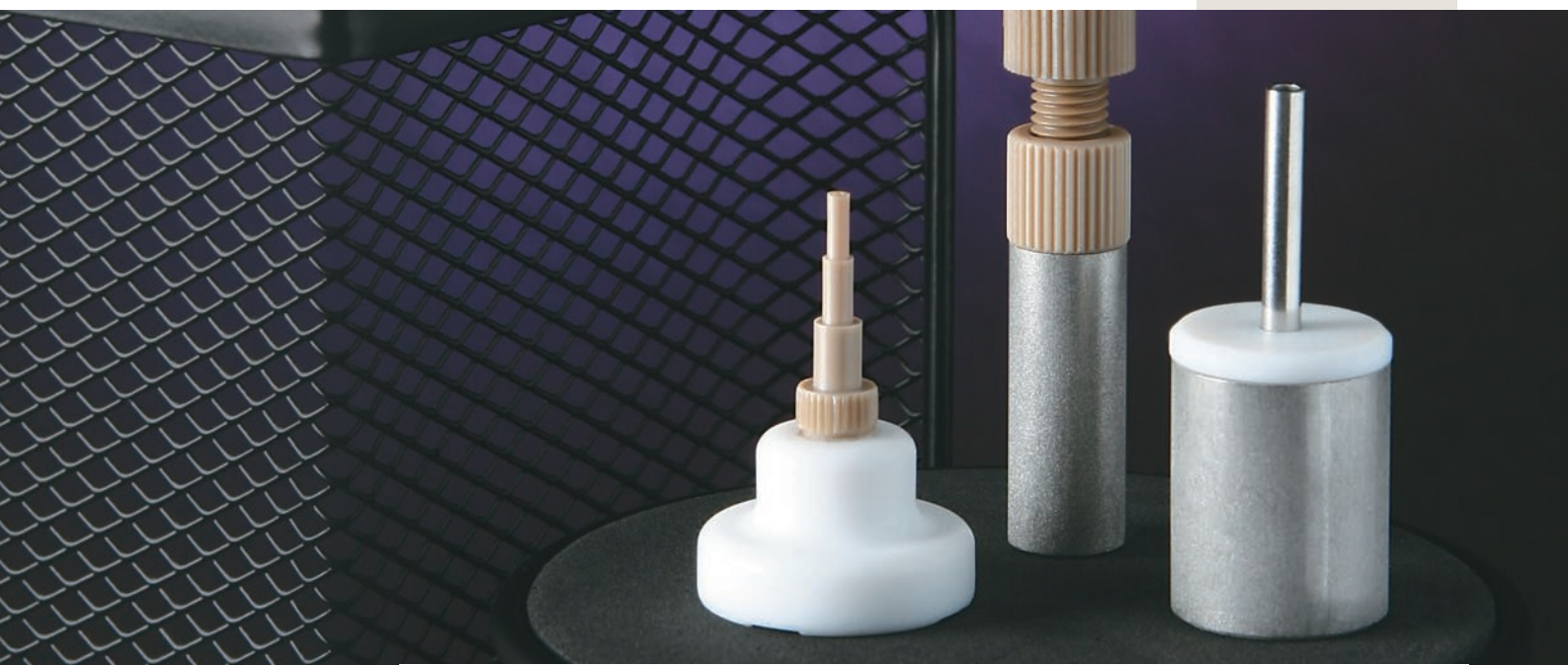
TECH TIP

We recommend using these in-line filter cartridges in combination with our low pressure fittings:

PEEK unions	44
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Micro valves	49

DISCLAIMER

The maximum holding pressure for any type of connections involving tubing and a ferrule varies considerably with the tubing material, the ferrule material, the clearance between tubing OD and ferrule ID, and the shape of the fitting detail.



Last Drop mobile phase filters

Low pressure

- No loss of mobile phase
- Biocompatible PTFE frits or stainless steel frits
- Three porosity options
- Two connector types: stepped tubing and 1/4-28 fitting



SPECS

- Materials
 - Body: PTFE
 - Frits: PTFE/ 316 SS/PE
- Stepped tubing version is for 1.5, 2.2, and 3.5 mm ID tubing
- Fitting version (for 1/8" OD tubing) includes PEEK 1/4-28 nut with ETFE ferrule

The Last Drop mobile phase filter allows more analyses per batch of mobile phase and helps reduce hazardous waste. The flat filter element sits parallel to the bottom of the reservoir, allowing the Last Drop to filter all but the last 2% of the mobile phase from the reservoir without drawing air into the system. Compare this with conventional cylindrical filters that can begin to draw air into the system when nearly 10% of the solvent remains in the reservoir.

The Last Drop mobile phase filter consists of a 316 stainless steel, PTFE 2.5 µm, or a hydrophobic PE filter element pressed into an inert PTFE housing. The top of the housing has a 1/4-28 nut and ferrule or a stepped PEEK fitting connector which slips into 1.5, 2.2, or 3.5 mm ID pump inlet lines.

Connector type:			Stepped tubing connector	Fitting connector
Filter material	Pore size	Maximum flow rate *	Product No.	Product No.
PTFE	2.5 µm	1.2 ml/min	JR-9000-0520	JR-9000-0520F
	5 µm	2.6 ml/min	JR-9000-0521	JR-9000-0521F
	10 µm	3.5 ml/min	JR-9000-0522	JR-9000-0522F
Polyethylene	10 µm	11 ml/min	JR-9000-0522H	JR-9000-0522HF
Stainless	2 µm	28 ml/min	JR-9000-0530	JR-9000-0530F
	5 µm	30 ml/min	JR-9000-0531	JR-9000-0531F
	10 µm	30 ml/min	JR-9000-0532	JR-9000-0532F



NOTES

* Flowrate measured with methanol/water (1:1), ultrasonic degassed, helium sparging to prevent regassing.

TECH TIPS

- Economy Last Drop mobile phase filters are easy to replace - easy to clean. Use ultrasound or replace with a new filter.
- Connect the Economy Last Drop filter with 1/8" OD/ 1.59 mm OD tubing:
 - PFA tubing 9
 - PTFE tubing 12
- We recommend metal-free PTFE or glass filters for sensitive biochromatography applications where metal surfaces may corrode or interact with samples.

RELATED PRODUCTS

Last Drop mobile phase filter/spargers 53

Economy Last Drop mobile phase filters

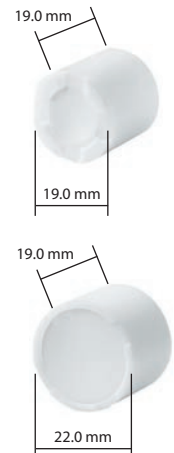
Low pressure

- Very competitively priced
- Biocompatible PTFE frits or stainless steel frits
- Three porosity options
- Two diameters



Economy mobile phase filters come in two body diameters, for various dimensions of bottle necks. The filter body is made of PTFE, which is resistant to virtually all common mobile phases.

Frit material	Body OD	Pore size	Maximum flow rate *	Product No.
PTFE	19 mm	2.5 µm	1.2 ml/min	JR-4676-2.5TF
		5 µm	2.6 ml/min	JR-4676-5TF
		10 µm	3.5 ml/min	JR-4676-10TF
	22 mm	2.5 µm	1.2 ml/min	JR-4677-2.5TF
		5 µm	2.6 ml/min	JR-4677-5TF
		10 µm	3.5 ml/min	JR-4677-10TF
Stainless steel	19 mm	2 µm	30 ml/min	JR-4676-2
		10 µm	30 ml/min	JR-4676-10
	22 mm	2 µm	30 ml/min	JR-4677-2
		10 µm	30 ml/min	JR-4677-10



FILTERS

Last Drop biocompatible glass mobile phase filters *Low pressure*

SPECS

- Materials
- Body: Glass
- Frit: Glass
- For use with 1/8" tubing

- The solution for biocompatibility and high flowrates
- Easy-push tubing connection

Because it has a glass frit, the flowrate can be much higher with this filter than with PTFE mobile phase filters. The glass foot allows withdrawal of nearly all of the mobile phase – less than 2% is left in the bottle.

Includes 1/8" tubing connector.

Frit material	Pore size	Maximum flow rate *	Product No.
Glass	1.0 - 1.6 µm	30 ml/min	JR-9000-0520B
	10-16 µm	50 ml/min	JR-9000-0526G
	40-100 µm	200 ml/min	JR-9000-0528G

Replacement connectors

For tubing	Size	Qty/pkg	Product No.
1/8" OD	6.8 mm	1	JR-9000-0525GC



No-Met biocompatible mobile phase filters *Low pressure*

SPECS

- Materials
- Body: PTFE/
Polyethylene
- Adapter: PEEK
- Fitting: PEEK
- Ferrule: ETFE
- For use with 1/8" tubing

- Very competitively priced
- Inert and biocompatible
- Replacement filters
- Also recommended for IC

Stainless steel in the flowpath is not acceptable in a growing number of applications involving the separation of biomolecules. High salt buffers can corrode stainless steel, and the metal ions released from metallic filters may contaminate or otherwise react with the biomolecules of interest.

The No-Met polyethylene filter is designed for these applications, with inert polymeric fittings for 1/8" tubing and a 20 µm filter effectively eliminating metal contamination from the fluid path. Use them for IC and biochromatography applications.

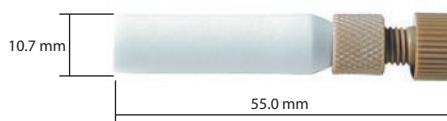
No-Met filters can be used at flow rates up to 500 ml/min, measured with methanol/water (1:1), ultrasonically degassed. Flow rates can vary with solvent and tubing ID.

The economy version can easily be slipped over 1/8" OD tubing, with no fitting required.

Connection	Filter material	Pore size	Maximum flow rate *	Product No.
1/4-28 nut and ferrule	PTFE	5 µm	2.2 ml/min	JR-32171
	Polyethylene	<20 µm	500 ml/min	JR-32178
Economy slip-on connection	Polyethylene	5 µm	300 ml/min	JR-32174

Replacement element

Filter material	Pore size	Maximum flowrate *	Product No.
PTFE	5 µm	2.2 ml/min	JR-32172
Polyethylene	<20 µm	500 ml/min	JR-32179



NOTES

* Flowrate measured with methanol/water (1:1), ultrasonic degassed, helium sparging to prevent regassing.

TECH TIPS

- Because they are hydrophobic, No-Met filters may initially require some priming with methanol or acetonitrile.
- Connect the No-Met filter with 1/8" OD/ 1.59 mm OD tubing:
PFA tubing 9
PTFE tubing 12



Last Drop filter/sparger

Low pressure

The Last Drop filter/sparger combines filtration and sparging in a single unit. The PTFE housing contains a mobile phase filter with a stainless steel, PTFE, or hydrophobic PE filter element.

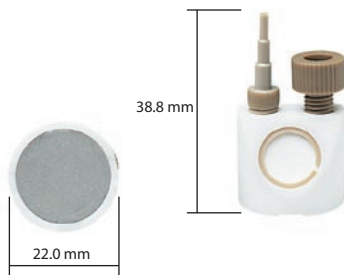
Spargers have a porosity of 10 microns.

The filter/sparger includes:

- PEEK tripod connector which slips into 1.5, 2.2, or 3.5 mm ID solvent lines
- 1/4-28 nut and ferrule for the sparging line

SPECS

- Materials
 - Body: PTFE
 - Frits: PTFE/316 SS/PE
- Stepped tubing connector: PEEK
- Nut: PEEK
- Ferrule: ETFE
- Stepped tubing connector for 1.5, 2.2, and 3.5 mm ID tubing
- PEEK 1/4-28 nut with ETFE ferrule for 1/8" OD tubing



Filter material	Pore size	Maximum flow rate *	Product No.	
PTFE	2.5 µm	1.2 ml/min	JR-9000-0602	
	5 µm	2.6 ml/min	JR-9000-0603	
	10 µm	3.5 ml/min	JR-9000-0604	
Polyethylene	10 µm	11 ml/min	JR-9000-0604H	
	Stainless	2 µm	28 ml/min	JR-9000-0640
		5 µm	30 ml/min	JR-9000-0641
	10 µm	30 ml/min	JR-9000-0642	

Stainless steel mobile phase filter/helium sparger

Low pressure



- Ideal for helium sparging
- Four porosities
- Fitting and pipe connectors

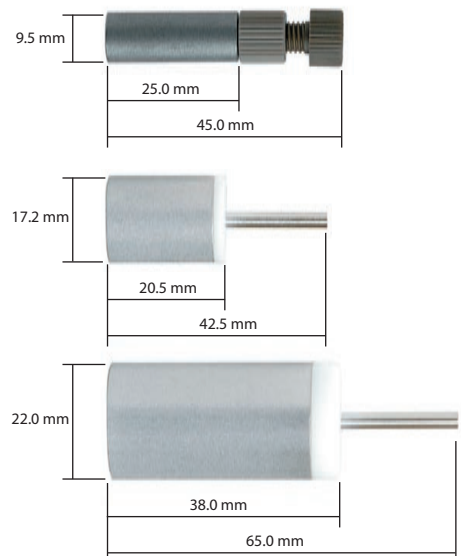
VICI Jour mobile phase filters protect HPLC systems from small particles in the mobile phase. These filters are made from SS316 with PEEK or PTFE connectors and are suitable for most solvents. The complete line has versions for both analytical and preparative applications.

VICI Jour helium spargers (2 µm versions) offer an inexpensive way to prepare and maintain mobile phases free of dissolved gases. Connected to a regulated supply of helium gas (0-400 mL/min.) they effectively remove dissolved oxygen, nitrogen, and other atmospheric gases from the mobile phase.

SPECS

- Materials
 - Body: SS316
 - Pipe: SS316
- Pipe adapter: PTFE
- Fitting adapter: PEEK
- Fittings: PEEK
- Ferrules: ETFE

Fitting type	Tubing/pipe size	Pore size	Maximum flow rate *	Product No.
1/4-28 fitting	1/16"	2 µm	35 ml/min	JR-367016-2
		10 µm	35 ml/min	JR-367016-10
		20 µm	35 ml/min	JR-367016-20
	1/8"	2 µm	35 ml/min	JR-367008-2
		10 µm	100 ml/min	JR-367008-10
Pipe	1/8"	20 µm	120 ml/min	JR-367008-20
		2 µm	50 ml/min	JR-3675-2
		2 µm	95 ml/min	JR-3678-2
Pipe	1/8"	25 µm	100 ml/min	JR-3678-25



TECH TIPS

- We recommend metal free PTFE filters for sensitive biochromatography applications where metal surfaces may corrode or interact with samples.
- We recommend our impermeable tubing to prevent "regassing" of helium-degassed solvents.

RELATED PRODUCTS

Last Drop mobile phase filters 51