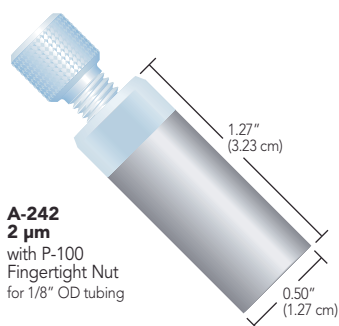


General Use Inlet Solvent Filters

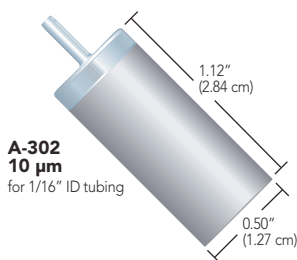
- ▶ Large surface areas prevent pump cavitation
- ▶ Disposable
- ▶ 2 µm, 10 µm, and 20 µm pore sizes available
- ▶ General use and prep filters for higher flow applications

It is good practice to filter your solvents to prevent pump damage. Upchurch Scientific® 316 stainless steel filters provide that protection.

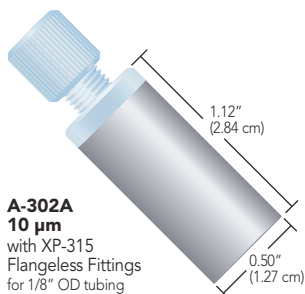
Because filters should be changed periodically, we make it easy to replace them without tools. For those filters using a plastic fitting, the tubing can be reconnected by finger tightening the fitting into the new filter. The filters with stems allow easy insertion into the inlet tubing.



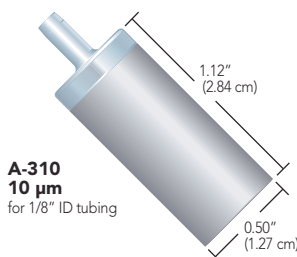
A-242
2 µm
with P-100
Fingertight Nut
for 1/8" OD tubing



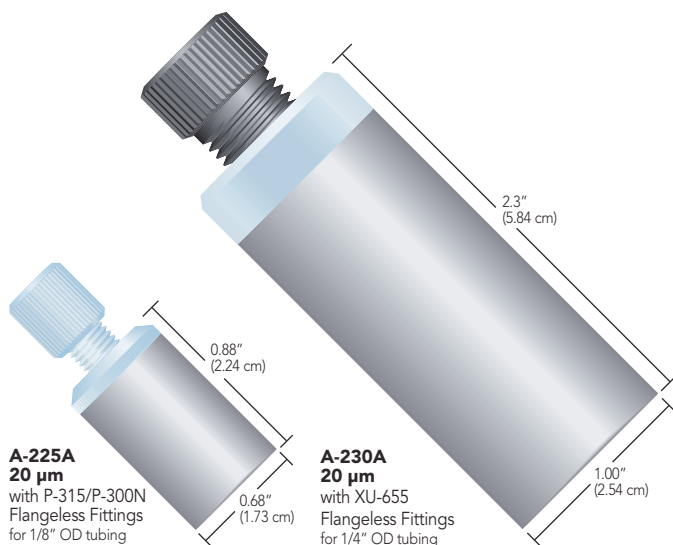
A-302
10 µm
for 1/16" ID tubing



A-302A
10 µm
with XP-315
Flangeless Fittings
for 1/8" OD tubing



A-310
10 µm
for 1/8" ID tubing



A-225A
20 µm
with P-315/P-300N
Flangeless Fittings
for 1/8" OD tubing

A-230A
20 µm
with XU-655
Flangeless Fittings
for 1/4" OD tubing

APPLICATION NOTE

Why Use An Inlet Solvent Filter?

- ▶ To filter out particulate matter from the solvent that may otherwise damage expensive hardware. (Use a 10 µm or 20 µm version for this purpose. The A-309 and A-230A filters have an added "Bottom of the Bottle™" feature to help draw solvent to within 1/8" of the bottom of your solvent bottle.)
- ▶ To prevent particulates originating from the sparging system from entering the mobile phase reservoir and to help disperse the sparging gas efficiently. (Use a 2 µm filter for this purpose.)
- ▶ To hold your tubing in place at the bottom of the bottle. (Most stainless steel filter options work best for this purpose.)

Note: It is usually a good idea to change the inlet filter as part of your semi-annual or annual preventative maintenance program.

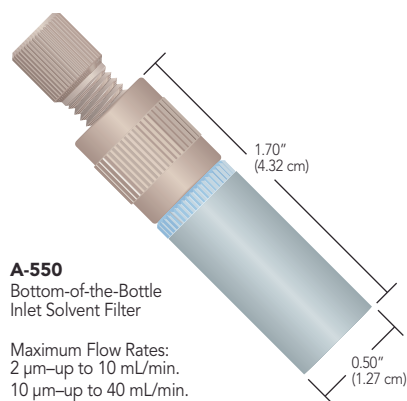
Part No.	Description	Porosity	Material	For Tubing Size	Includes	Max. Suggested Flow Rate*
GENERAL USE INLET SOLVENT FILTERS						
For Analytical HPLC						
A-242	Inlet Solvent Filter with One-Piece Fitting	2 µm	PCTFE, SST	1/8" OD	(1) P-100	10 mL/min
A-243	A-242, 5-pack	2 µm	PCTFE, SST	1/8" OD	(5) P-100	10 mL/min
A-228	Inlet Solvent Filter with stem	2 µm	SST	1/8" ID	—	80 mL/min
★ A-302	Inlet Solvent Filter with stem	10 µm	SST	1/16" ID	—	40 mL/min
★ A-302A	Inlet Solvent Filter with Flangeless Fittings	10 µm	PCTFE, SST	1/8" OD	(1) XP-315	40 mL/min
A-309	Inlet Solvent Filter with stem	10 µm	SST	1/16" ID	—	40 mL/min
A-231A	Inlet Solvent Filter with Flangeless Fittings	20 µm	PCTFE, SST	3/16" OD	(1) XP-132	100 mL/min
★ A-310	Inlet Solvent Filter with stem	10 µm	SST	1/8" ID	—	40 mL/min
For Preparative HPLC Systems						
A-225	Inlet Solvent Filter with stem	20 µm	SST	1/16" ID	—	100 mL/min
★ A-225A	Inlet Solvent Filter with Flangeless Fittings	20 µm	PCTFE, SST	1/8" OD	(1) P-315, (1) P-300N	100 mL/min
A-227A	Inlet Solvent Filter with Flangeless Fittings	10 µm	PCTFE, SST	1/4" OD	(1) XU-655	100 mL/min
A-230A	Inlet Solvent Filter with Flangeless Fittings	20 µm	PCTFE, SST	1/4" OD	(1) XU-655	100 mL/min
A-311	Inlet Solvent Filter with stem	10 µm	SST	1/16" ID	—	100 mL/min
A-311A	Inlet Solvent Filter with Flangeless Fittings	10 µm	PCTFE, SST	1/8" OD	(1) XP-315	100 mL/min

* Maximum suggested flow rates are determined by porosity and surface area.

Stainless Steel Bottom-of-the-Bottle™ Solvent Filters

- ▶ Draws solvent from within 1/8" of the bottom of the bottle
- ▶ Replaceable stainless steel filter cups
- ▶ Versions for 1/8" and 3/16" OD tubing
- ▶ Materials of construction: PEEK, ETFE, and 316 Stainless Steel

Patented Stainless Steel Bottom-of-the-Bottle Solvent Filter Assemblies feature a 2 µm or 10 µm replaceable stainless steel filter cup and a design that allows solvent to be drawn from within 1/8" of the bottom of your solvent bottle. The filter cups are inexpensive and easy to replace, making this an economical, trouble-free choice.



A-550
Bottom-of-the-Bottle
Inlet Solvent Filter

Maximum Flow Rates:
2 µm—up to 10 mL/min.
10 µm—up to 40 mL/min.

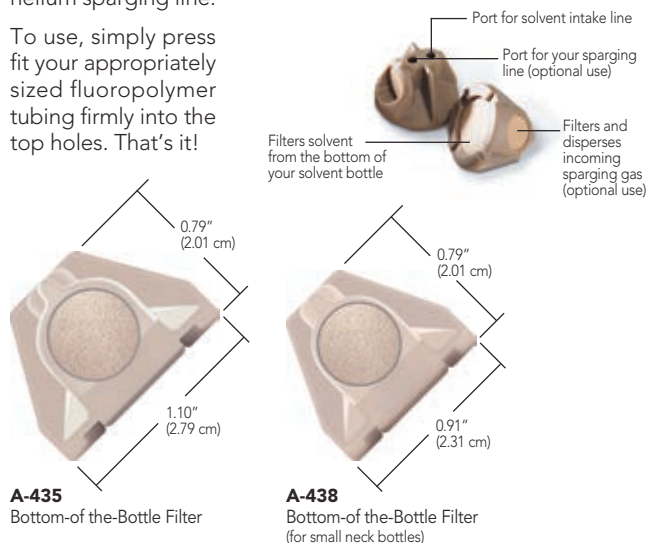
All-PEEK Bottom-of-the-Bottle Solvent Filters

- ▶ Most recommended filtering unit
- ▶ 100% PEEK polymer construction
- ▶ Easy operation — no fittings required



These biocompatible filters are made from 100% PEEK polymer, including the two built-in PEEK frits. The bottom frit (2 µm or 10 µm) will draw solvents from within 0.080" (2.0 mm) of the bottom of the solvent bottle. The 2 µm frit on the side may be used for a 1/8" OD helium sparging line.

To use, simply press fit your appropriately sized fluoropolymer tubing firmly into the top holes. That's it!



A-435
Bottom-of-the-Bottle Filter

A-438
Bottom-of-the-Bottle Filter
(for small neck bottles)

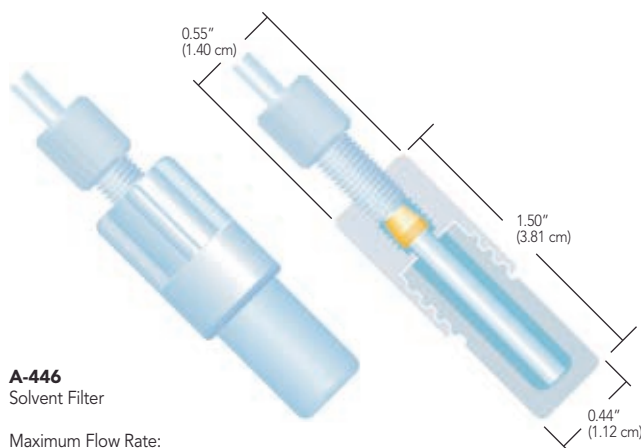
Maximum Flow Rate: up to 30 mL/min

UHMWPE Bottom-of-the-Bottle Solvent Filters

- ▶ Replaceable filter cup
- ▶ Economical
- ▶ Materials of construction: UHMWPE, ETFE
- ▶ Versions for 1/16" and 1/8" OD tubing

The design of the UHMWPE solvent filters allows tubing to pass through to the bottom of the filter cup, enabling the filter to draw solvent from within 0.10" (2.5 mm) of the bottom of your solvent bottle.

Please Note: UHMWPE is a hydrophobic material. To establish proper surface wetting, you may need to prime the filter with methanol or acetonitrile.



A-446
Solvent Filter

Maximum Flow Rate:
up to 5 mL/min

Part No.	Description	Porosity	For Tubing Size	Includes
STAINLESS STEEL BOTTOM-OF-THE-BOTTLE SOLVENT FILTERS				
★ A-550	SST Filter Assembly, with A-520 filter cup	10 µm	1/8" OD	(1) XP-130
A-551	SST Filter Assembly, with A-522 filter cup	2 µm	1/8" OD	(1) XP-130
A-520x	SST Replacement Solvent Filter Cups, 10-pk	10 µm	—	—
A-522x	SST Replacement Solvent Filter Cups, 10-pk	2 µm	—	—
ALL-PEEK BIOCOMPATIBLE BOTTOM-OF-THE-BOTTLE SOLVENT FILTERS				
A-435	PEEK Filter	2 µm	1/8" OD	—
A-437	PEEK Filter, for small-neck (GL-38) bottles	2 µm	1/8" OD	—
A-438	PEEK Filter, for small-neck (GL-38) bottles	10 µm	1/8" OD	—
★ A-440	PEEK Filter	10 µm	1/8" OD	—
A-441	PEEK Filter	10 µm	3/16" OD	—
A-451	PEEK Filter	10 µm	1/16" OD	—
UHMWPE BIOCOMPATIBLE BOTTOM-OF-THE-BOTTLE SOLVENT FILTERS				
A-445	UHMWPE Filter Assembly	10 µm	1/16" OD	(1) XP-245
★ A-446	UHMWPE Filter Assembly	10 µm	1/8" OD	(1) XP-345
A-427	UHMWPE Replacement Solvent Filter Cups, 5-pk	10 µm	—	—