



Filter Holders

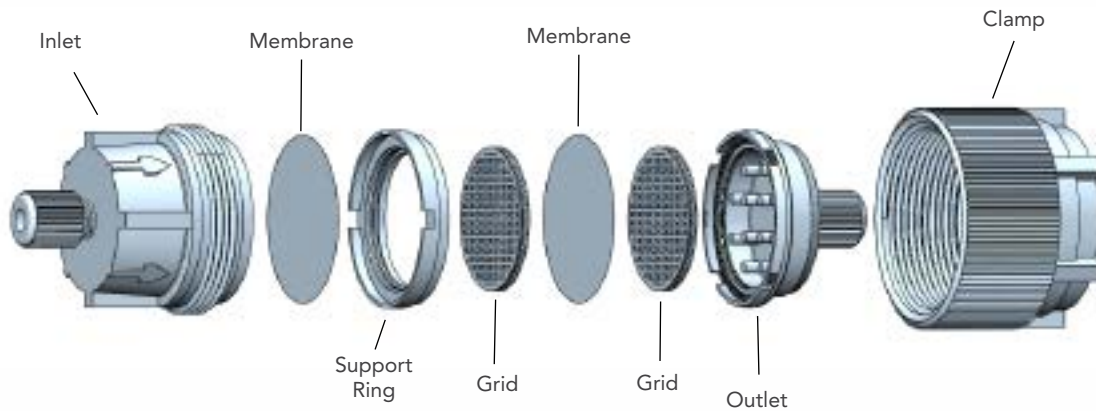
Filter Holders



SavilleX offers many pre-assembled filter holders for your convenience. You can also build your own application-specific filter by ordering the necessary components. The components needed to build your own filter include:

- Inlets
- Outlets
- Grids
- Support rings (47 mm multi-stage filters only)
- Clamps
- Membranes (use only PTFE membranes)

Build Your Own Filter Holder Components



Inlets

- Available in various styles
- Glass polypropylene wrench set recommended for tightening (not required for 25 mm)



Open Style



Ferrule Nut Style



Tube Style

Outlets

- Available in various styles
- Grid must be ordered separately



MNPT Style



Ferrule Nut Style



Tube Style

Filter Holders



Build Your Own Filter Holder Components, continued

Grids

- PFA grid snaps into support ring or outlet to hold filter membrane

Support Rings

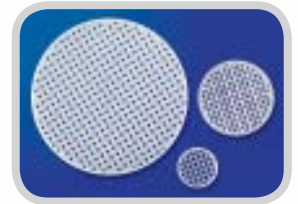
- Support rings are required for 47 mm multi-stage filter holders only

Clamps

- Available in various sizes and materials
- Extended clamp is required for multi-stage filter holders
- Tefzel® clamps are reinforced with 25% glass fiber for use in higher pressure applications

Filter Membranes

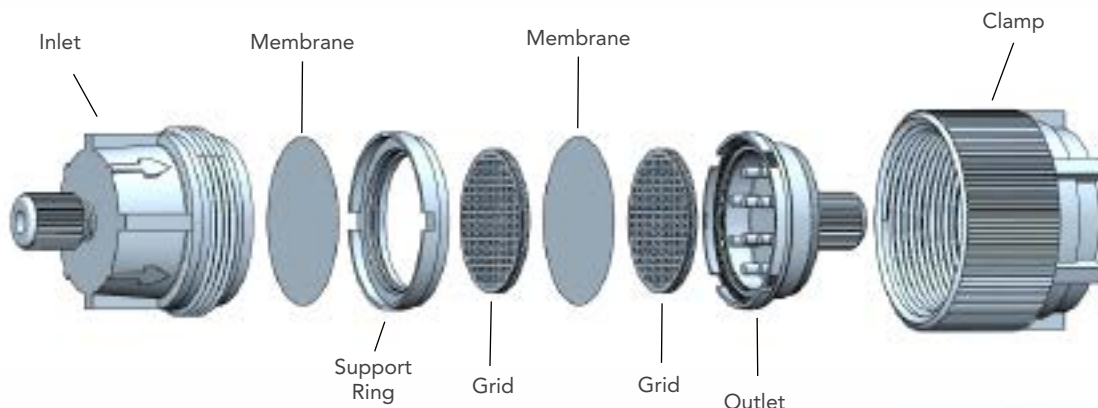
- Produced of pure PTFE
- Chemically and biologically inert, stable up to 500°F/260°C, and will withstand most concentrated acids and bases
- Ideal for applications requiring extreme temperatures or aggressive chemicals without adding particulates to the filtrate
- Naturally hydrophobic and very useful for aerosol sampling, air venting and gas filtration
- Nominally rated filters for submicron filtering of aqueous solutions. Pre-wet with methanol, ethanol or isopropyl alcohol to establish flow with lower pressure differentials.
- Sterilize with steam or bactericidal solutions
- Ten membranes per package



Grid sold separately



* **CAUTION:** For every 2°F/1°C temperature rise above 150°F/66°C, decrease pressure rating by 1 PSI.





Filter Holders

25 mm Filter Holders

Pre-Assembled Single Stage Filters (membranes sold separately)

Part Number	Description	Pressure Rating
401-20-25-50-20-2	1/8" inlet x 1/8" outlet with PVDF clamp	65 PSI
401-21-25-50-21-2	1/4" inlet x 1/4" outlet with PVDF clamp	65 PSI

Build Your Own 25 mm Filter Holder

Inlets

Part Number	Description
410-11-25	2-1/2" opening
410-20-25	1/8" OD tube opening with ferrule nut
410-21-25	1/4" OD tube opening with ferrule nut
410-31-25	1/4" MNPT

Outlets

Part Number	Description
411-20-25	1/8" OD tube opening with ferrule nut
411-21-25	1/4" OD tube opening with ferrule nut
411-31-25	1/4" MNPT

Grid

Part Number	Description
414-25	Grid for 25 mm filter membranes

Clamps

Part Number	Description	Pressure Rating
412-50-25	PVDF clamp assembly, blue and white	65 PSI
412-51-25	PVDF clamp, white	65 PSI
412-52-25	PVDF clamp, blue	65 PSI
412-12-25	PVDF clamp, gray	65 PSI

Filter Membranes

Part Number	Pore Size in Microns	Description
450-25-1	0.2	PTFE, 10 per pack
450-25-2	0.45	PTFE, 10 per pack
450-25-3	1-2	PTFE, 10 per pack
450-25-4	5-6	PTFE, 10 per pack
450-25-5	20-30	PTFE, 10 per pack
450-25-6	30-60	PTFE, 10 per pack



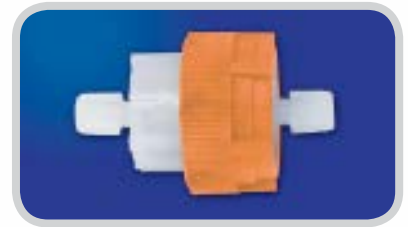
* **CAUTION:** For every 2°F/1°C temperature rise above 150°F/66°C, decrease pressure rating by 1 PSI.



47 mm Filter Holders

Pre-Assembled Single Stage Filters (membranes sold separately)

Part Number	Description	Pressure Rating
401-21-47-10-21-2	1/4" OD tube inlet x 1/4" OD tube outlet with PFA clamp	25 PSI
401-21-47-30-21-2	1/4" OD tube inlet x 1/4" OD tube outlet with Tefzel clamp	65 PSI
401-31-47-10-31-2	1/4" OD MNPT inlet with 1/4" OD MNPT outlet with PFA clamp	25 PSI



Pre-Assembled Two Stage Filters (membranes sold separately)

Part Number	Description	Pressure Rating
402-10-47-22-21-2	1-1/2" open inlet x 1/4" OD tube outlet, PFA clamp	25 PSI
402-10-47-22-22-2	1-1/2" open inlet x 3/8" OD tube outlet, PFA clamp	25 PSI
402-21-47-22-21-2	1/4" OD tube inlet x 1/4" OD tube outlet, PFA clamp	25 PSI
402-31-47-22-31-2	1/4" OD MNPT inlet x 1/4" OD MNPT outlet, PFA clamp	25 PSI
402-10-47-22-31-2	1-1/2" open inlet x 1/4" MNPT outlet, PFA clamp	25 PSI

Pre-Assembled Three Stage Filters (membranes sold separately)

Part Number	Description	Pressure Rating
403-10-47-22-21-2	1-1/2" open inlet x 1/4" OD tube outlet, PFA clamp	25 PSI
403-10-47-22-22-2	1-1/2" open inlet x 3/8" OD tube outlet, PFA clamp	25 PSI
403-21-47-22-21-2	1/4" OD tube inlet x 1/4" OD tube outlet, PFA clamp	25 PSI
403-31-47-22-31-2	1/4" OD MNPT inlet x 1/4" OD MNPT outlet, PFA clamp	25 PSI
403-10-47-22-31-2	1-1/2" open inlet x 1/4" MNPT outlet, PFA clamp	25 PSI



Pre-Assembled Four Stage Filters (membranes sold separately)

Part Number	Description	Pressure Rating
404-10-47-22-21-2	1-1/2" open inlet x 1/4" OD tube outlet, PFA clamp	25 PSI
404-10-47-22-22-2	1-1/2" open inlet x 3/8" OD tube outlet, PFA clamp	25 PSI
404-21-47-22-21-2	1/4" OD tube inlet x 1/4" OD tube outlet, PFA clamp	25 PSI
404-31-47-22-31-2	1/4" OD MNPT inlet x 1/4" OD MNPT outlet, PFA clamp	25 PSI
403-10-47-22-31-2	1-1/2" open inlet x 1/4" MNPT outlet, PFA clamp	25 PSI

* **CAUTION:** For every 2°F/1°C temperature rise above 150°F/66°C, decrease pressure rating by 1 PSI.



Filter Holders

Build Your Own 47 mm Filter Holder

Inlets

Part Number	Description
410-43-47	1/2" OD x 1" tube
410-31-47	1/4" MNPT
410-41-47	1/4" OD x 1" tube
410-10-47	1-1/2" open
410-12-47	3-1/2" open x 1" tube
410-42-47	3/8" OD x 1" tube
410-21-47	1/4" OD with ferrule nut
410-22-47	3/8" OD with ferrule nut

Outlets

Part Number	Description
411-43-47	1/2" OD x 1" tube
411-31-47	1/4" MNPT
411-41-47	1/4" OD x 1" tube
411-42-47	3/8" OD x 1" tube
411-21-47	1/4" OD with ferrule nut
411-22-47	3/8" OD with ferrule nut

Grid

Part Number	Description
414-47	Grid for 47 or 50 mm filter membranes

Support Ring (for multi-stage only)

Part Number	Description
413-47	Support ring for 47 mm multi-stage filters

Clamps

Part Number	Description	Pressure Rating
412-10-47	PFA clamp, single stage, orange	25 PSI
412-30-47	Tefzel® clamp, single stage, black	65 PSI
412-22-47	PFA clamp, multi-stage, gray	25 PSI

Filter Membranes

Part Number	Pore Size in Microns	Description
450-47-1	0.2	PTFE, 10 per pack
450-47-2	0.45	PTFE, 10 per pack
450-47-3	1-2	PTFE, 10 per pack
450-47-4	5-6	PTFE, 10 per pack
450-47-5	20-30	PTFE, 10 per pack
450-47-6	30-60	PTFE, 10 per pack



* **CAUTION:** For every 2°F/1°C temperature rise above 150°F/66°C, decrease pressure rating by 1 PSI.

Filter Holders



50 mm Filter Holders

Pre-Assembled Single Stage Filters (membranes sold separately)

Part Number	Description	Pressure Rating
401-21-50-31-21-2	1/4" OD tube inlet x 1/4" OD tube outlet with Tefzel® clamp	65 PSI
401-21-50-11-21-2	1/4" OD tube inlet x 1/4" OD tube outlet with PFA clamp	25 PSI
401-43-50-31-43-2	1/2" OD x 1" tube inlet x 1/2" OD x 1" tube outlet with Tefzel® clamp	65 PSI
401-43-50-11-43-2	1/2" OD x 1" tube inlet x 1/2" OD x 1" tube outlet with PFA clamp	25 PSI



Build Your Own 50 mm Filter Holder

Inlets

Part Number	Description
410-43-50	1/2" OD x 1" tube
410-31-50	1/4" MNPT
410-10-50	1-1/2" open
410-42-50	3/8" OD x 1" tube
410-21-50	1/4" OD with ferrule nut
410-22-50	3/8" OD with ferrule nut



Outlets

Part Number	Description
411-43-50	1/2" OD x 1" tube
411-31-50	1/4" MNPT
411-42-50	3/8" OD x 1" tube
411-21-50	1/4" OD with ferrule nut
411-22-50	3/8" OD with ferrule nut



Grid

Part Number	Description
414-47	Grid for 47 or 50 mm filter membranes



Clamps

Part Number	Description	Pressure Rating
412-11-50	PFA clamp, single stage, green	25 PSI
412-31-50	Tefzel® clamp, single stage, brown	65 PSI



Membranes

Part Number	Pore Size in Microns	Description
450-50-1	0.2	PTFE, 10 per pack
450-50-2	0.45	PTFE, 10 per pack
450-50-3	1-2	PTFE, 10 per pack
450-50-4	5-6	PTFE, 10 per pack
450-50-5	20-30	PTFE, 10 per pack
450-50-6	30-60	PTFE, 10 per pack



* **CAUTION:** For every 2°F/1°C temperature rise above 150°F/66°C, decrease pressure rating by 1 PSI.



Filter Holders

90 mm Filter Holders

Pre-Assembled Single Stage Filters (membranes sold separately)



Part Number	Description	Pressure Rating
401-43-90-40-43-2	1/2" OD x 1" tube inlet x 1/2" OD x 1" tube outlet with Ultem® clamp	10 PSI
401-44-90-40-44-2	5/8" OD x 1" tube inlet x 5/8" OD x 1" tube outlet with Ultem® clamp	10 PSI

Build Your Own 90 mm Filter Holder

Inlets

Part Number	Description
410-43-90	1/2" OD x 1" tube
410-10-90	1-1/2" open
410-44-90	5/8" OD x 1" tube
410-23-90	1/2" OD with ferrule nut
410-25-90	3/4" OD with ferrule nut

Outlets

Part Number	Description
411-43-90	1/2" OD x 1" tube
411-44-90	5/8" OD x 1" tube
411-23-90	1/2" OD with ferrule nut
411-25-90	3/4" OD with ferrule nut

Grid

Part Number	Description
414-90	Grid for 90 mm filter membranes

Clamps

Part Number	Description	Pressure Rating
412-40-90	Ultem® clamp, single stage, beige	10 PSI

Filter Membranes

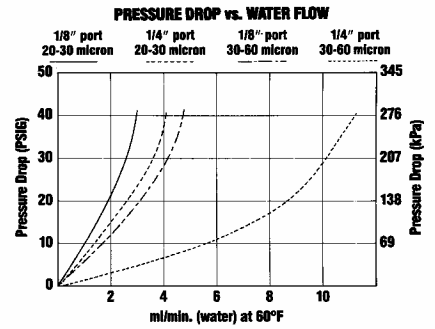
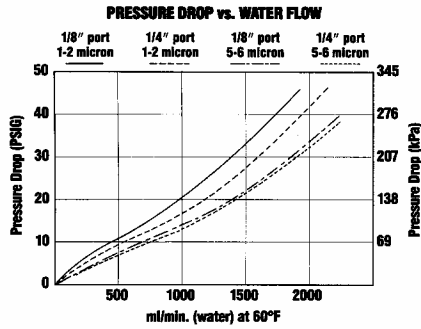
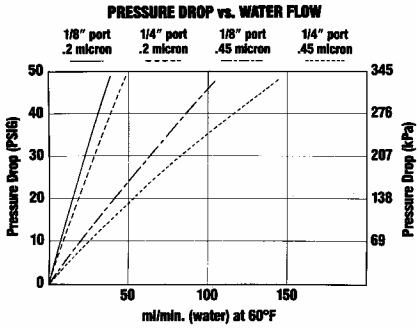
Part Number	Pore Size in Microns	Description
450-90-3	1-2	PTFE, 10 per pack
450-90-4	5-6	PTFE, 10 per pack
450-90-5	20-30	PTFE, 10 per pack
450-90-6	30-60	PTFE, 10 per pack



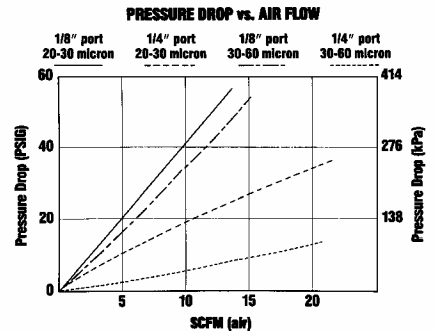
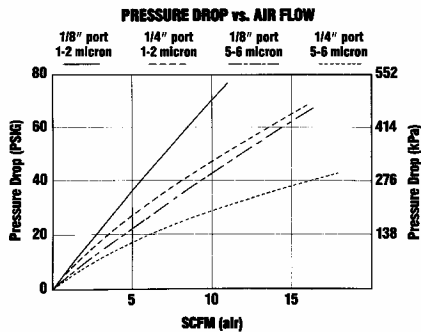
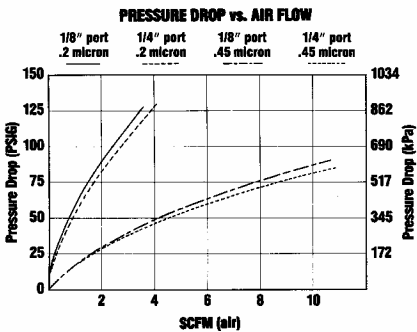
* **CAUTION:** For every 2°F/1°C temperature rise above 150°F/66°C, decrease pressure rating by 1 PSI.

Filter Flow Rates

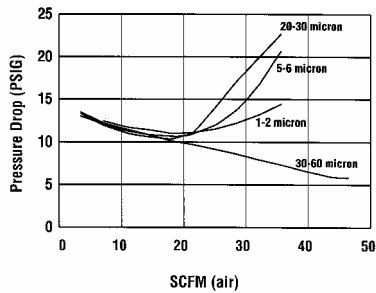
25mm Water



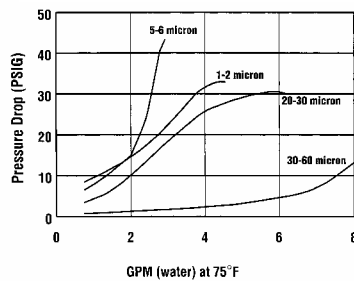
25mm Air



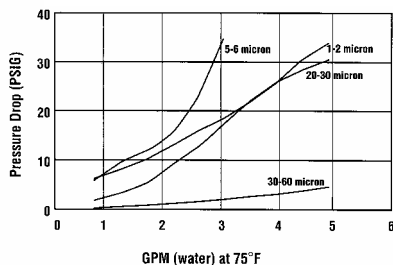
401-25-90-40-25 FILTERS
PRESSURE DROP VS. AIR FLOW



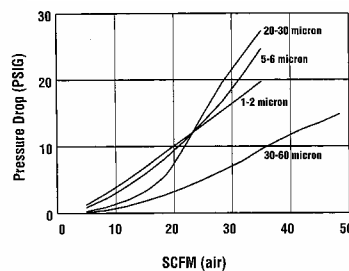
401-25-90-40-25 FILTERS
PRESSURE DROP VS. WATER FLOW



401-23-90-40-23 FILTERS
PRESSURE DROP VS. WATER FLOW



401-23-90-40-23 FILTERS
PRESSURE DROP VS. AIR FLOW

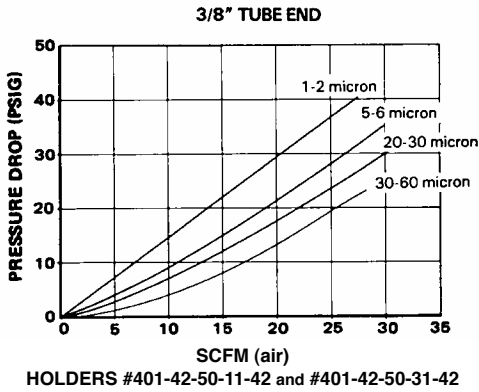


Flow rates provided are for reference only. Actual performance may vary.

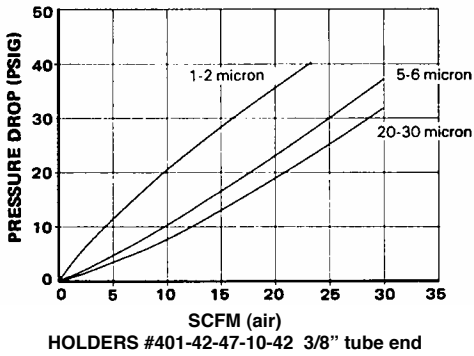
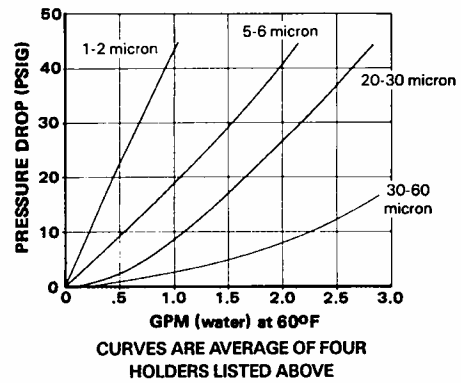
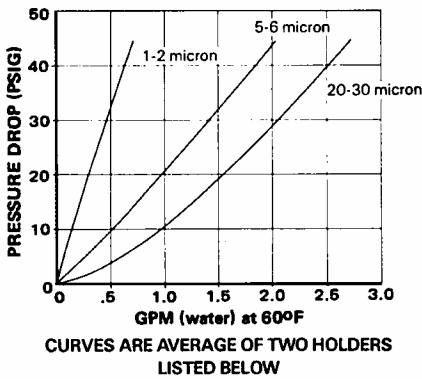
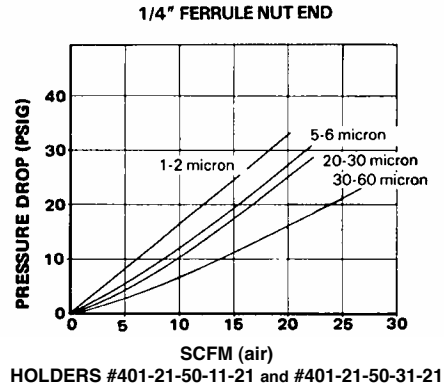


Filter Holders

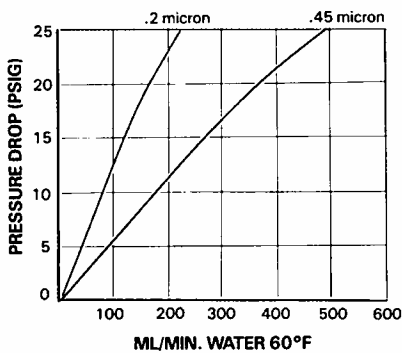
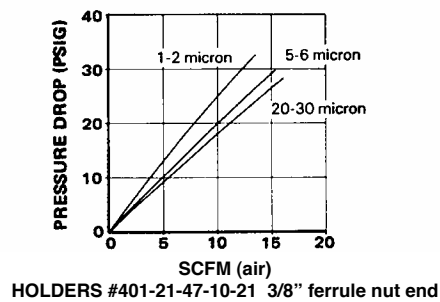
Filter Flow Rates, continued



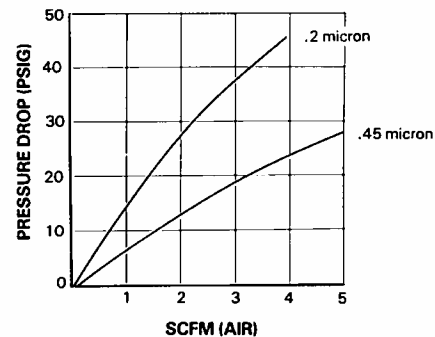
(50mm)



(47mm)



**SUBMICRON
(47 mm)
CURVES ARE
AVERAGE OF HOLDERS
#401-42-47-10-42
and
#401-21-47-10-21**





Filter Holder Accessories

Wrench Set

- Glass polypropylene wrench set is used to tighten connections between PFA components



Part Number	Description	Use with
730-0056	Wrench set	47, 50 and 90 mm filter holders

Please refer to the [Savillex website](#) for additional specialty filtration assemblies.