Vacuum filtration is used primarily in micro-biological and analytical procedures that involve collecting a particulate (bacteria, precipitate etc.) from a liquid suspension.

Liquid poured into a funnel passes through a filter, which retains the particulate, and filtrate can be collected into a filter flask,

directly or via a vacuum manifold. Applying vacuum reduces process time compared to gravity flow. Advantec supplies a wide range of vacuum filter holders and accessories.

Select from glass, polysulfone and stainless steel assemblies with funnels holding from 22 ml to 1,100 ml.

| KG-25 | KGS-25 | KG-47 | KGS-47 | KGS-47-TF | KG-90 | KGS-90 |

Glass Microfiltration: Support Systems

❯ Sintered Glass Support (Glass Frit)

- Glass frit (nominal retention 30-50 µm)
- Recommended when filtering highly acidic (low pH) solutions or when slower flow rates are preferred to maximize contact with the filter or reagent
- Ground glass seal

Sintered base

❯ Stainless Steel Support

- Stainless steel screen (Type 316, 100 mesh)
- PTFE gasket
- Maximize flow rate with proteinaceous or viscous solutions
- Will not shed particles into the filtrate
- Ground glass seal

SS support base

Filter Specifications

Model	KG-25 KGS-25	KG-47 KGS-47 KGS-47-TF	KG-90 KGS-90
Filter dia. [mm]	25	47	90
Effective filtration area [cm^2]	2.1	9.6	43.0

Vacuum Filter Holders

❭ 25 mm Glass Microanalysis Holders

- **Use for filtering small volumes** for biological or particulate contamination
- Available with either sintered glass base or with stainless steel screen support
- **Use stainless steel screen** when producing ultraclean filtrate or when filtering proteinaceous solutions
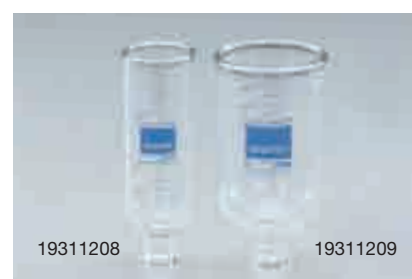

KG-25   *KGS-25*

❭ Specifications

	KG-25	KGS-25
Funnel capacity:	Maximum volume 22 ml, graduated to 15 ml	
Materials:		
Support	Sintered glass	Stainless steel screen
Funnel and base	Borosilicate glass	Borosilicate glass
Stopper	Silicone rubber	Silicone rubber
Clamp	Anodized aluminium	Anodized aluminium
Connection:		
Included	No. 4 stopper adapts to standard 125 ml vacuum filter flask	
Membrane Filter Compatibility:		
Filter size	25 mm	25 mm
Prefilter size	16 mm	16 mm
Filtration area	2.1 cm^2	2.1 cm^2

❭ Ordering Information

Model	KG-25	KGS-25
Cat. No.	17311200	17311300

19311208   19311209

❭ Replacement parts and optional funnels

		KG-25	KGS-25
1	Funnel, 15 ml (22 ml)	19311201	19311201
1	Funnel, 150 ml (160 ml)	19311208	19311208
1	Funnel, 300 ml (320 ml)	19311209	19311209
2	Clamp	19311003	19311003
3	Screen (stainless steel)	-	19311304
4	Gasket (PTFE)	-	19311305
5	Base	19311202	19311302
6	Stopper No. 4	19311004	19311004
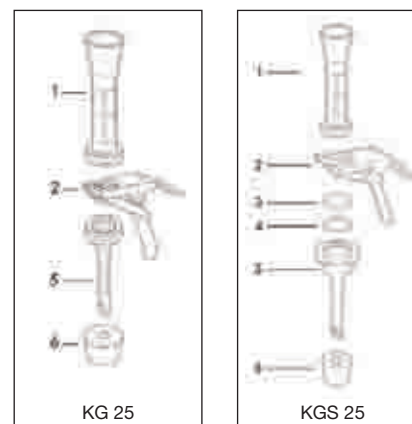
KG 25   KGS 25

❯ 47 mm Glass Microanalysis Holders

- **Standard size** for microbiology and particulate analysis
- **Filter up to 500 ml**
- **Available with sintered glass support and stainless steel support.** Last-mentioned also with PTFE flange to prevent membrane sticking to glass when autoclaving with filter in place

KG-47 *KGS-47* *KGS-47-TF*

❯ Specifications

	KG-47	KGS-47	KGS-47-TF
Funnel capacity:	Maximum volume 320 mm (graduated to 300 ml)		
Materials:			
Support	Sintered glass	Stainless steel screen	Stainless steel and PTFE
Funnel and base	Borosilicate glass	Borosilicate glass	Borosilicate glass
Stopper	Silicone rubber	Silicone rubber	Silicone rubber
Clamp	Anodized aluminium	Anodized aluminium	Anodized aluminium
Connection:			
Included	No. 8A stopper adapts to standard 1 L vacuum filter flask or vacuum manifold		
Membrane Filter Compatibility:			
Filter size	47 mm	47 mm	47 mm
Prefilter size	35 mm	35 mm	35 mm
Filtration area	9.6 cm^2	9.6 cm^2	9.6 cm^2

❯ Ordering Information

Model	KG-47	KGS-47	KGS-47-TF
Cat. No.	17311400	17311500	17311600

19311408   19311409

❯ Replacement parts and optional funnels

		KG-47	KGS-47	KGS-47-TF
1	Funnel, 100 ml	19311408	19311408	19311408
1	Funnel, 300 ml	19311401	19311401	19311401
1	Funnel, 500 ml	19311409	19311409	19311409
2	Clamp	19311403	19311403	19311403
3a/3	Screen (stainless steel)	-	19311504	19311504
4a	Gasket (PTFE)	-	19311505	-
4	Flange (PTFE)	-	-	19311605
5	Base	19311402	19311502	19311602
6	Stopper No. 8A	19311404	19311404	19311404
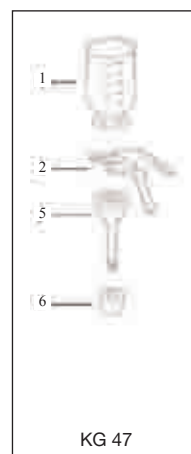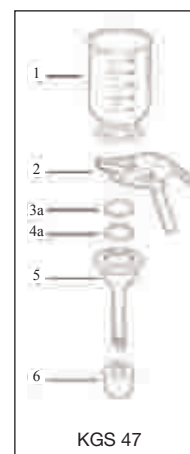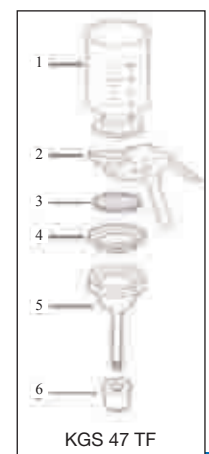
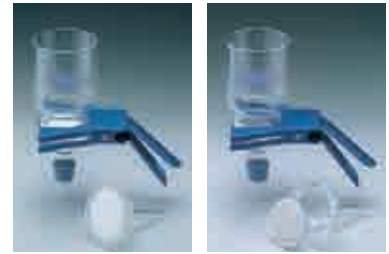KG 47   KGS 47   KGS 47 TF

Vacuum Filter Holders

❯ 90 mm Glass Microanalysis Holders

- **Larger filtration** area for filtering larger volumes (>500 ml)
- **Use for viscous samples** or those with a heavy particle or bioburden that would clog a 47 mm filter
- Available with sintered glass or stainless steel support

KG-90   *KGS-90*

❯ Specifications

	KG-90	KGS-90
Funnel capacity:	Maximum volume 1100 ml, graduated to 1000 ml	
Materials:		
Support	Sintered glass	Stainless steel screen
Funnel and base	Borosilicate glass	Borosilicate glass
Stopper	Silicone rubber	Silicone rubber
Clamp	Anodized aluminium	Anodized aluminium
Connection:		
Included	No. 8A stopper adapts to standard 1 L vacuum filter flask or vacuum manifold	
Membrane Filter Compatibility:		
Filter size	90 mm	90 mm
Prefilter size	70 mm	70 mm
Filtration area	43 cm^2	43 cm^2

❯ Ordering Information

Model	KG-90	KGS-90
Cat. No.	17312100	17312200

❯ Replacement parts

		KG-90	KGS-90
1	Funnel, 1000 ml (1100 ml)	19312101	19312101
2	Clamp	19312102	19312102
3	Screen (stainless steel)	-	19312204
5	Base	19312103	19312203
6	Stopper No. 8A	19311404	19311404

KG 90   KGS 90
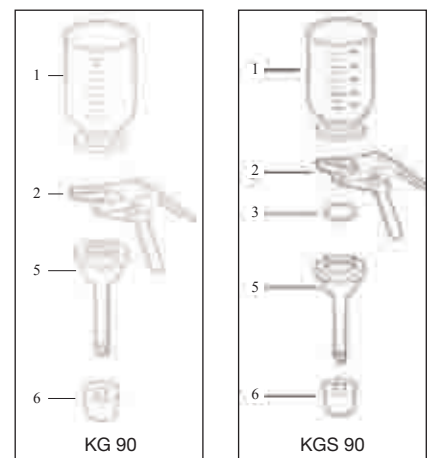
❯ Polysulfone Filter Holders

- **Can be used aseptically**
- **Recessed filter support** provides sufficient clearance so that the membrane will not twist or tear when the funnel is secured
- **Graduated funnel** in 300 ml (standard) or 500 ml (wide mouth) capacities
- **Receiver flask** (KP-47S) is interchangeable with all other models
- **Funnel cover** can be vented aseptically using disposable syringe filter (13JP050AN, see page 20)
- **Autoclavable** at 120°C for 20 min.

KP-47H   *KP-47U*

KP-47W   *KP-47S*

❯ Specifications

	KP-47H	**KP-47U**	**KP-47W**	**KP-47S**
Materials:				
Support	Polypropylene	Polypropylene	Polypropylene	Polypropylene
Funnel and base	Polysulfone	Polysulfone	Polysulfone	Polysulfone
Receiver flask	-	-	-	Polysulfone
Stopper, O-rings	Silicone Rubber	Silicone Rubber	Silicone Rubber	Silicone Rubber
Caps	-	Silicone Rubber	-	Silicone Rubber
Vacuum adapter	-	-	-	Polypropylene
Connection:				
Outlet	No. 8B stopper adapts to standard 1 L vacuum filter flask, vacuum manifold. KP-47S screws onto receiver flask.			
Receiving flask port	-	-	-	Luer slip
Funnel cover port	-	Luer slip	-	Luer slip
Capacity:				
Funnel	300 ml	300 ml	500 ml	300 ml
Receiver	-	-	-	300 ml
Pressure:	Vacuum (25 in Hg maximum)			
Membrane Filter Compatibility:				
Filter size	47 mm	47 mm	47 mm	47 mm
Prefilter size	41 mm	41 mm	41 mm	41 mm
Filtration area	13.5 cm^2	13.5 cm^2	13.5 cm^2	13.5 cm^2

❯ Ordering Information

| Model	Description	Main Components	Cat. No.
KP-47H	Polysulfone Filter Holder	Funnel, base	43301030
KP-47U	Polysulfone Aseptic Filter Unit	Funnel, base, cover	43301020
KP-47W	Wide Mouth Polysulfone Filter Holder	Funnel, base	43301050
KP-47S	Polysulfone Aseptic Filter System	Funnel, base cover, receiver	43301010

Vacuum Filter Holders

Replacement parts

❯ Replacement Parts – Funnel assembly

	Model	KP-47H	KP-47U	KP-47W	KP-47S
	Cat. No.	43301030	43301020	43301050	43301010
1	Gum rubber cap	–	44501010	–	44501010
2	Funnel cover	–	44501001	–	44501001
3	Funnel	44501002	44501002	44501102	44501002
4	Funnel O-ring	44501008	44501008	44501008	44501008
5	Filter support	44501004	44501004	44501004	44501004
6	Base	44501003	44501003	44501003	44501003
7	Stopper No. 8B	19311008	19311008	19311008	19311008

❯ Replacement Parts – Receiver flask

	Model	KP-47S
8	Receiver cover	44501005
9	Receiver adapter O-ring	44501009
10	Vacuum adapter	44501013
11	Receiver adapter	44501007
12	Receiver O-ring	44501015
13	Receiver flask	44501006
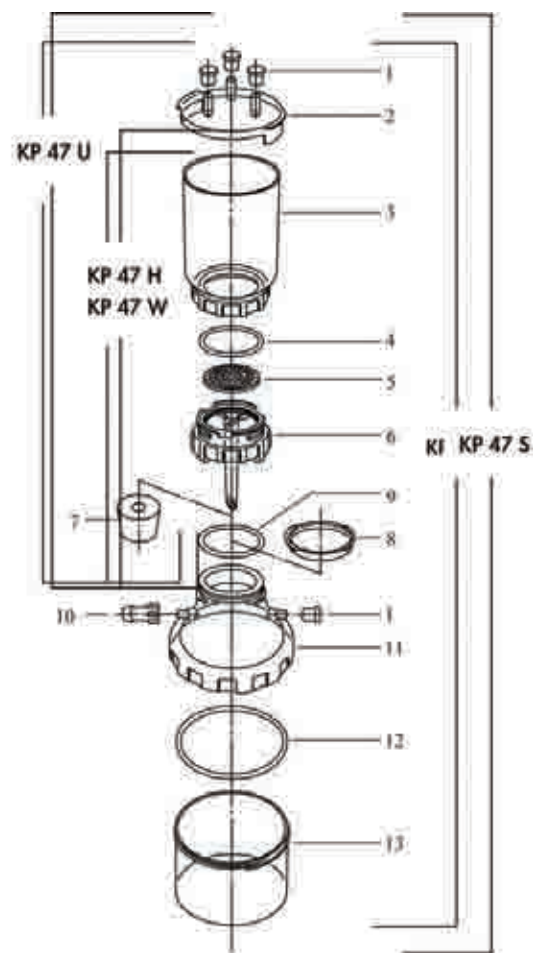
Stainless Steel Filter Holders – KSF-47

- **Nonbreakable stainless steel unit** may be flame sterilized to sanitize the holder between samples
- **Set pins and a locking nut** on the funnel to help prevent twisting and tearing of the membrane
- **Autoclavable** with membrane in place

Specifications

	KSF-47
Materials:	
Support	Type 316 stainless steel
Funnel, base	Type 304 stainless steel
Stopper	Silicone rubber
Gasket	PTFE
Connection:	
Included	No. 8A stopper adapts to standard 1 L vacuum filter flask or vacuum manifold
Capacity:	
Funnel	500 ml
Pressure:	Vacuum (21 in Hg recommended)
Membrane Filter Compatibility:	
Filter size	47 mm
Prefilter size	35 mm
Filtration area	9.3 cm^2

Ordering Information

Model	KSF-47
Cat. No.	17312600

Replacement parts

		KSF-47
1	Funnel	-
2	Base	-
3	SS support screen	19311504
4	PTFE gasket	19311505
5	Stopper No. 8A	19311404

Vacuum Filter Holders
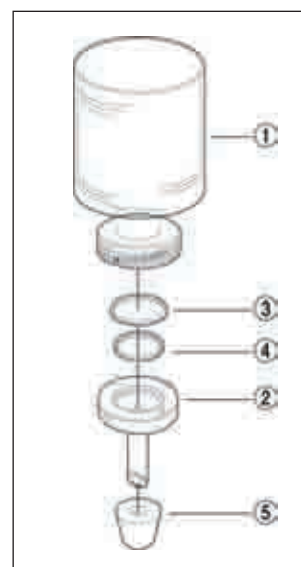
Vacuum Filtration

❭ Disposable Vacuum Filtration Unit

- **Disposable;** no cleaning saves labor time
- **Hydrophilic PTFE membrane**, suitable for filtration of both aqueous liquids and solvents
- **Fits receiver flasks** with neck diameter from 24 mm to 50 mm and minimum height of 30 mm
- **Two pore sizes available**, 0.2 μm and 0.5 μm

Applications

Ideal for filtering and degassing HPLC mobile phases.

❭ Specifications

Model	VH020P	VH050P
Materials:	Hydrophilic PTFE membrane filter in polyethylene housing	
Pore size, μm	0.20	0.50
Effective Filtration area [cm^2]	22.1	22.1
Funnel capacity, ml	350	350

❭ Ordering Information

Model	VH020P	VH050P
Cat. No.	8100020	8100050

❯ PVC Manifolds

- **Lightweight**
- **Resistant to acids**
- **Standard cup** accepts stoppers Nos. 8A and 8B to adapt microanalysis units and other devices
- **2-way** valve with Teflon (PTFE) stopcock in PVC body
- Not autoclavable

❯ Specifications

Materials:	
Body and branches	Polyvinylchloride (PVC)
Valves	PTFE stopcock, PVC body

| Connection:	
Outlet	1⁄4 " male PT to hose barb fitting connects main manifold to 11 mm i.d. vacuum tubing
Standard cup	Accepts stoppers Nos. 8A and 8B

Temperature:	
Maximum	60°C

Dimensions	L x W x H [cm]	Distance between stations (center to center) [cm]	Weight [kg]
3 station	45.1 x 12 x 17.8	14	1.5
6 station	87.6 x 12 x 17.8	14	2.5

❯ Ordering Information

Model		Cat. No.
3 station	KMP 3	17313400
6 station	KMP 6	17313600

❯ Replacement parts

		Cat. No.
1	Handle	-
2	Handle set screw	-
3	Pipe plug	-
4	Hose barb	19313411
5	Branch (standard cup)	-
6	Main manifold	
	3 station	-
	6 station	-
7	Stopcock assembly, 2-way	19313405
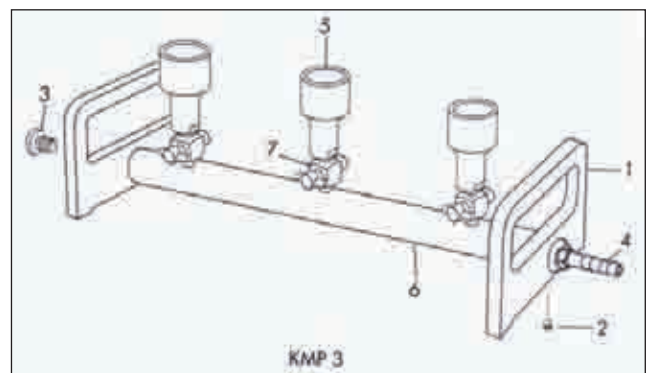
Filtration Manifolds

❯ Stainless Steel Manifolds

- **Durable,** made of type 304 stainless steel
- **Autoclavable**
- **2-way valves,** individual or multiple (up to 6) filtrations possible
- **Standard cup** accepts stoppers Nos. 8A and 8B to adapt microanalysis units and other devices

❯ Specifications

Materials:	
Body and branches	Type 304 stainless steel
Valves	PTFE stopcock, chrome plated brass body

| Connection:	
Outlet	1⁄4 " male NPT to hose barb fitting connects main manifold to 11 mm i.d. vacuum tubing
Standard cup	Accepts stoppers Nos. 8A and 8B

Dimensions	L x W x H [cm]	Distance between stations [cm]	Weight [kg]
3 station	45.7 x 12 x 20.3	14	5.0
6 station	72.4 x 12 x 20.3	14	8.0

❯ Ordering Information

Model		Cat. No.
3 station	KM3N	17313100
6 station	KM6N	17313300

❯ Replacement parts

		Cat. No.
1	Handle	-
2	Handle set screw	-
3	Pipe plug	-
4	Hose barb	19313011
5	Branch (standard cup)	-
6	Main manifold	
	3 station	-
	6 station	-
7	Stopcock assembly, 2-way	19313005
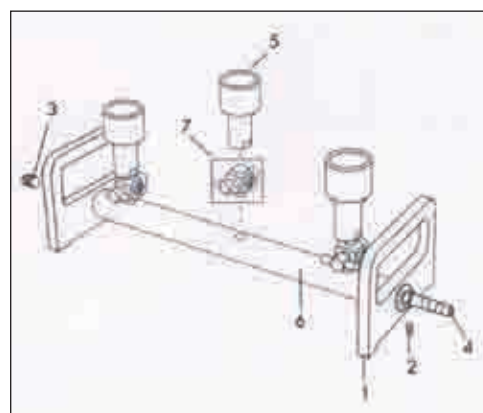
Pressure type filter holders can be used for ultracleaning or sterilizing liquids and gases. Advantec holders have been designed to maximize flow rates and to minimize holder resistance and can be used in either batch or continuous filtration procedures.

Advantages of Pressure Filtration

- Higher differential pressures are possible, resulting in higher flow rates. The pressure differential across the membrane is not limited to atmospheric pressure (≤ 14.7 psi)

- Denaturation of proteins and other biological polymers due to foaming downstream of the membrane is avoided

- Unintentional contamination downstream of the membrane is minimized

- Vapor accumulation and possible explosion can be avoided using an inert gas to pressurize solvents and combustible or flammable liquids

❯ Recommended Pressure Filter Holders for typical applications and volumes

Volume to be filtered:	<10 ml	<50 ml	< 1 liter	<5 liters	<20 liters	>20 liters
Typical Applications	Enzymes, radiolabelled samples	Proteins, enzymes, radiolabelled samples, gases	Biological media, electrolyte solutions for counters, gases	Biological media, ultrapure water, serum, gases	Biological media, ultrapure water, serum, gases	Pharmaceuticals, cosmetics, large scale biologicals
Recommended Models						
Luer Connection	KS 13	KS 25	-	-	-	
Threaded Connection	-	LS 25 PP 25 PFA 25	KS 47 LS 47 PP 47 PFA 47	KS 90	KS 142	KS 293
Sanitary Connection	-	KS 25 F	KS 47 F	KS 90 ST	KS 142 ST	KS 293 ST
Filter Specifications						
Membrane Diameter [mm]	13	25	35, 38, 42, or 47	90	142	293
Prefilter Diameter[1] [mm]	8	21 or 25	37	76	124	257
Filtration Area [cm^2]	0.9	3.5 or 3.8	12.5	45.3	113	530
Liquid Flow Rate[2] [l/min]						
0.20 µm	0.005	0.03	0.15	0.8	1.7	7.1
0.45 µm	0.02	0.08	0.4	1.64	4.9	18.8
1.00 µm	0.12	0.35	1.3	7.0	11.0	32.0
5.00 µm	0.3	1.1	2.1	9.5	14.0	35.5

1) Prefilter size varies with model. Refer to individual model specifications before choosing a prefilter.
2) Liquid flow rates represent typical initial water flow rates at 0.7 kg/cm^2 differential pressure at 20°C using clean water filtered to 0.1 µm using MCE membrane.

Pressure Filtration

❯ Polypropylene In-Line Holders

- **Compatible** with a wide range of chemicals and temperatures
- **Exterior locking ring design** allows the unit to be assembled quickly and efficiently without tearing the membrane
- **Two sizes available**, 25 mm for volumes (liquids) <50 ml and 47 mm for up to 1 liter
- **Autoclavable**, at 121°C for 20 minutes

PP 25

PP 47

❯ Specifications

	PP 25	PP 47
Materials:		
Body and support screens	Polypropylene	Polypropylene
O-ring (standard)	Silicone	Silicone
Connection:		
Inlet	Female Luer-lock	Combination 1⁄4" NPTM and female Luer slip
Outlet	Male Luer slip	Combination 1⁄4" NPTM and female Luer slip
Pressure:		
Inlet	5 kg/cm^2	5 kg/cm^2
Differential	3 kg/cm^2	5 kg/cm^2
Temperature:		
Maximum (autoclave) 1 bar, 20 min.	121°C	121°C
Maximum operating (liquids)	80°C	80°C
Filter Specifications:		
Filter size	25 mm	47 mm
Prefilter size	21 mm	42 mm
Filtration area	3.5 cm^2	13.5 cm^2
Recommended volume	<50 ml	Up to 1 liter
Dimensions:		
Diameter	30 mm	65 mm
Height	30 mm	50 mm

❯ Ordering Information

Model	PP 25	PP 47
Cat. No.	43303010	43303020
Packing	6	1

Polypropylene In-Line Holders

❯ Typical initial liquid flow rates [ml/min]

Membrane Pore size [µm]	PP 25	PP 47
0.20	35	250
0.45	80	600
1.00	320	1700
3.00	740	2800

Conditions: Water, 20°C, filtered through MCE membranes at 1 kg/cm² differental pressure.
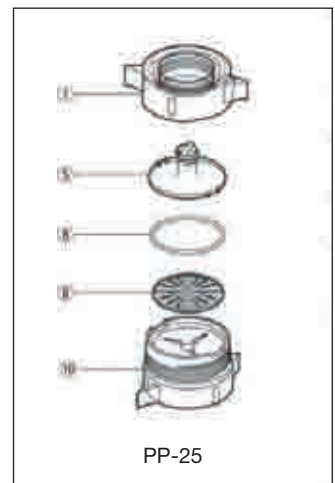
PP-25

❯ Replacement Parts

		PP 25
1	Locking ring, outer	44540101
5	Inlet cap	44540102
6	Support screen	44540104
8	Inlet cap O-ring (standard)	44540106
10	Outlet base	44540103

		PP 47
1	Locking ring, outer	44501201
5	Inlet cap	44501202
6	Support screen	44501004
7	Locking O-ring	44501204
8	Inlet cap O-ring (standard)	44501204
9	Outlet base O-ring (standard)	44501208
10	Outlet base	44501203
11	Outlet adapter (male luer slip to hose barb)	44501013

PP-47

Pressure Filtration

〉 PFA In-Line Filter Holders

- **Superior chemical compatability,** can be used with chemically aggressive liquids
- **Dual support screens** allow flow in either direction
- **Exterior locking ring** for quick assembly without tearing the membrane

〉 Applications

- Sterilize and ultraclean liquids under positive pressure
- Ideal for filtering small volumes of hight purity acids, alkalis or organic solvents

Note: PFA 47 has an air/bleed vent.

PFA 25

PFA 47

〉 Specifications

	PFA 25	PFA 47
Materials:		
Body and support screens	Teflon PFA (except for locking ring on PFA 47: glass filled ETFE)	
O-ring (standard)	Perfluoroelastomer	Perfluoroelastomer
Connection:		
Inlet	Female Luer-lock	Combination 1⁄4" NPTM, 1⁄4" tubing adapter
Outlet	Male Luer slip	Combination 1⁄4" NPTM, 1⁄4" tubing adapter
Pressure:		
Inlet	3 kg/cm^2	3 kg/cm^2
Differential, positive or negative, at 25°C	3 kg/cm^2	3 kg/cm^2
Temperature:		
Maximum operating	100°C	100°C
Autoclave	121°C, 15 min	121°C, 15 min
Dimensions:		
Diameter	32 mm	65 mm
Height	32 mm	70 mm
Membrane Compatibility:		
Filter size	25 mm	47 mm
Prefilter size	21 mm	42 mm
Filtration area	3.5 cm^2	13.5 cm^2
Flow Rate:		
Pore size (PTFE membrane)	Typical methanol flow rate at 1 kg/cm^2, 20°C [ml/min]	
0.2 µm (J020)	60	400
0.5 µm (J050)	150	700
1.0 µm (J100)	350	1200

PFA In-Line Filter Holders

❯ Ordering Information

Model	PFA 25	PFA 47
Cat. No.	43307010	43307020
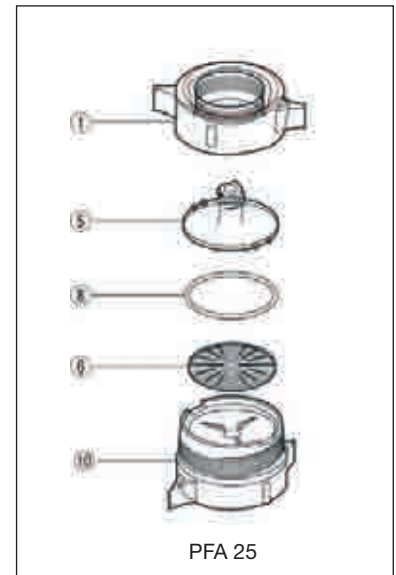
PFA 25

❯ Replacement Parts

		PFA 25	PFA 47
1	Locking ring	44530201	44530101
2	Inlet/Outlet adapter	-	44530111
3	Tubing adapter	-	44530110
4	Vent cap	-	44530105
5	Inlet cap	44530202	44530102
6	Support screen	44530204	44530104
8	Inlet O-ring (standard)	44530206	44530106
10	Body	44530203	44530103

PFA 47
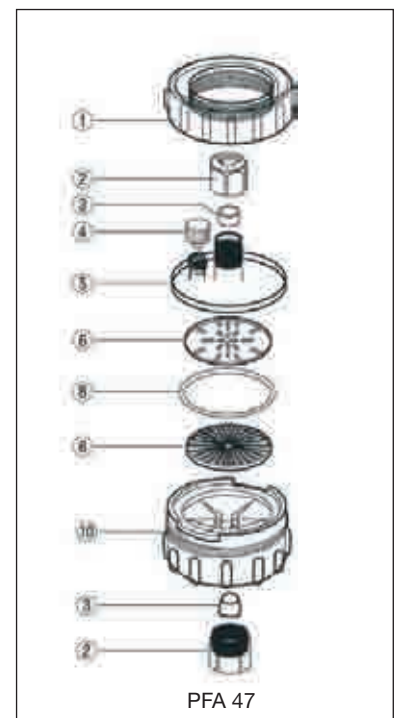
Pressure Filtration

❯ **Stainless Steel Syringe Holders**

- **Sterilizable** by standard procedures including autoclaving
- **Luer fittings** fit typical syringes
- **Can be tightened securely**, wrench set included

❯ **Applications**

- Filter or clean small volumes of liquid such as eyewash or photoresists
- Clear turbud solutions such as serum
- Purify virus solutions

KS 13 / KS 25

❯ **Specifications**

	KS 13	KS 25
Materials:		
Body, support screens	Type 304 Stainless Steel	Type 304 Stainless Steel
Gasket	PTFE (teflon)	PTFE (teflon)
O-ring	PTFE (teflon)	PTFE (teflon)
Connection:		
Inlet	Female Luer-lock	Female Luer-lock
Outlet	Male Luer slip	Male Luer slip
Pressure:		
Inlet	7 kg/cm^2	7 kg/cm^2
Differential	3 kg/cm^2	3 kg/cm^2
Membrane Compatability:		
Filter size	13 mm	25 mm
Prefilter size	8 mm	21 mm
Filtration area	0.9 cm^2	3.8 cm^2
Dead volume	0.2 ml	0.4 ml
Dimensions:		
Diameter	16 mm	32 mm
Height	39 mm	36 mm
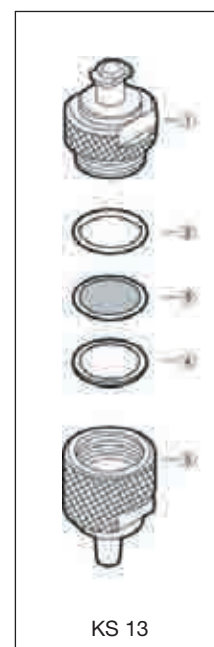
KS 13

❯ **Ordering Information**

Model	KS 13	KS 25
Cat. No.	17301000	17301200

❯ **Replacement Parts**

		KS 13	KS 25
1	Inlet, female Luer-lock	-	-
2	O-ring (PTFE)	19301004	19301204
3	Screen	19301003	19301203
4	Gasket (PTFE)	19301002	19301202
5	Outlet, male Luer slip	-	-
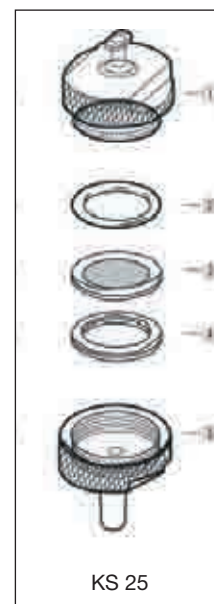
KS 25

Stainless Steel Gas Line Holders

- **Female threaded locking ring** enables filter changes without removing the holder from connecting gas lines
- **Dual support screens** protect the membrane filter from reverse pressure surges and allow forward and reverse flow from either inlet or outlet

Applications

- Ultraclean and sterilize air and other gases including compressed gases
- In-line between pressurizing source (pump or gas cylinder) and dispensing vessel

LS 25 / LS 47

Specifications

	LS 25	LS 47
Materials:		
Body, support screens	Type 304 Stainless Steel	Type 304 Stainless Steel
Locking ring	Chrome-plated brass	Chrome-plated brass
Gasket	PTFE (teflon)	PTFE (teflon)
O-ring	PTFE (teflon)	Silicone
Connection:		
Inlet	1⁄4" NPTF	1⁄4" NPTF
Outlet	1⁄4" NPTM	1⁄4" NPTM
Pressure:		
Inlet	5 kg/cm^2	5 kg/cm^2
Differential	2 kg/cm^2	2 kg/cm^2
Membrane Compatability:		
Filter size	25 mm	47 mm
Prefilter size	25 mm	47 mm
Filtration area	3.8 cm^2	12.5 cm^2
Dimensions:		
Diameter	38 mm	69 mm
Height	50 mm	57 mm

LS 25
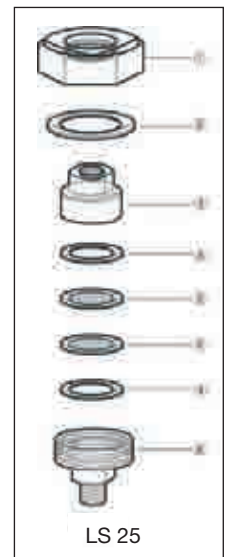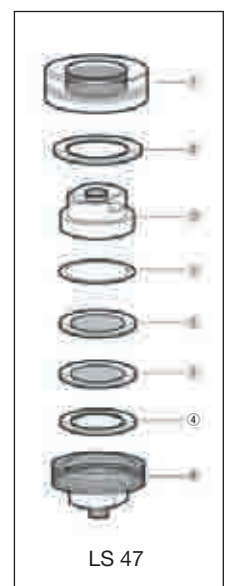
Ordering Information

Model	LS 25	LS 47
Cat. No.	17304500	17304700

Replacement Parts and and Optional O-rings

		LS 25	LS 47
1	Locking ring	-	-
2	Locking ring gasket	19304504	19304704
3	Inlet body (1⁄4" NPTF)	-	-
4	Gasket PTFE	19301202	19304702
5	Stainless steel screen (304SS)	19301203	19304703
6	Outlet body (1⁄4" NPTM)	-	-
7	Silicone O-ring	-	19304703

LS 47

Pressure Filtration

❯ High Pressure Stainless Steel Holders

- **Operate at high pressure,** up to 100 kg/cm^2
- **Standard Viton O-rings** compatible with many aggressive liquids and gases
- **Back pressure support screen available** to prevent membrane rupture and deflect flow at very high pressures

❯ Applications

- Filter liquids or gases under high pressure

LS 47 HP

❯ Specifications

	LS 47 HP
Materials:	
Body, support screens	Type 304 Stainless Steel
O-ring	FPM
Connection:	
Inlet and Outlet	¼" NPTF
Pressure:	
Inlet	100 kg/cm^2
Differential	20 kg/cm^2
Dead volume:	
Upstream	3 ml
Downstream	6.5 ml
Membrane Compatability:	
Filter size	47 mm
Prefilter size	38 mm
Filtration area	12.5 cm^2
Dimensions:	
Diameter	88 mm
Height (incl. adapters)	94 mm

❯ Ordering Information

Model	LS 47 HP
Cat. No.	17304900

❯ Replacement Parts and Accessories

		LS 47 HP
1	Inlet/outlet adapter	-
2	Adapter O-ring	19304905
3	Hex cap screw, M-8	-
4	Cap screw washer	-
5	Inlet plate	-
6	Inner O-ring	19304906
7	Outer O-ring	19304910
8	Sintered steel support	19304903
9	Outlet plate	-
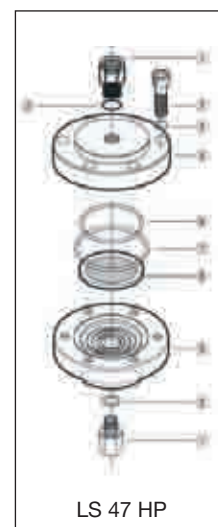
LS 47 HP

Sanitary In-Line Stainless Steel Holders

- **Sanitary inlet and outlet connections** are non-threaded and can be completely disassembled for thorough cleaning
- **47 mm holder features vent** to allow air venting on upstream side of the membrane at any time during filtration

Applications

- Point of use filtration on sterile filling machines
- Flow decay studies for scale up to larger filtration systems
- Liquid or gas

Specifications

	KS 25 F	KS 47 F
Materials:		
Body, support screens	Type 304 Stainless Steel	Type 304 Stainless Steel
O-ring	FPM and Silicone	FPM and Silicone
Gasket	PTFE	PTFE
Connection:		
Inlet/outlet	6 mm OD barb/4 mm ID	8 mm OD barb/6 mm ID
Pressure:		
Inlet	5 kg/cm^2	5 kg/cm^2
Differential	3 kg/cm^2	3 kg/cm^2
Dimensions:		
Diameter (without clamp)	50 mm	64 mm
Length (with vent valve)	72 mm	78 mm

Ordering Information

Model	KS 25 F	KS 47 F
Cat. No.	17307000	17307200

Replacement Parts

		KS 25 F	KS 47 F
1-3	Vent valve set	-	19307220
4	Gasket (PTFE)	-	19307208
5	Inlet body	-	-
6	O-ring	19307003	19304712
7	Support screen	19301203	19304703
8a	Underdrain support	-	19307204
8	Gasket PTFE	19307004	-
9	Outlet body	-	-
10	Clamp	19306000	19306300

KS 25 F

KS 47 F

KS 25 F

KS 47 F
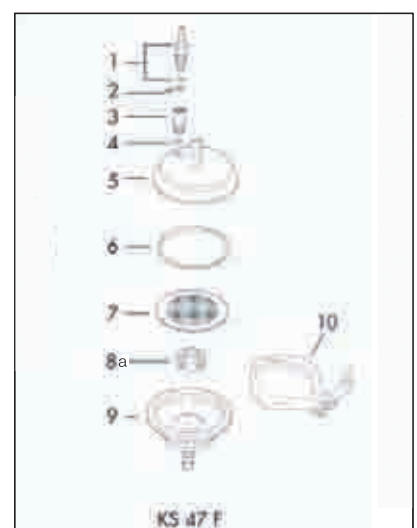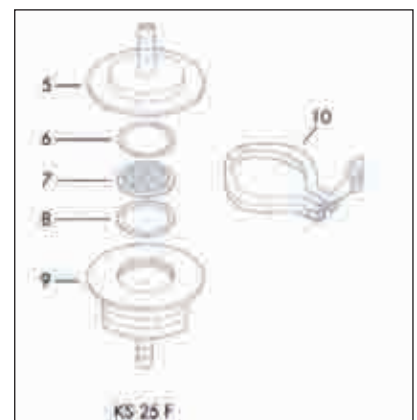
Pressure Filtration

Vented In-Line Stainless Steel Holder

- **Support screens are Teflon coated** to prevent membrane sticking during autoclaving
- **Back pressure support screen** prevents membrane rupture during reverse pressure surges
- **Vent valve** in inlet body enables venting at any time during filtration

Applications

- Sterilize and ultraclean liquids and gases under positive pressure
- Sterilize with membrane in place for microbiological studies
- Install for point of use filtration on filling machines

Note: When using KS 47 to filter gases, a second support screen should be used upstream the membrane (Replacement Parts, No. 8)


KS 47

Specifications

	KS 47
Materials:	
Body and support screens	Type 304 Stainless Steel
O-ring	FPM and silicone
Support screens	PTFE coated stainless steel
Gasket	PTFE
Connections:	1⁄4" PS to hose barb (9.5 mm)
Pressure:	
Inlet	7 kg/cm^2
Differential	3 kg/cm^2
Dead volume:	
Upstream	5 ml
Downstream	2 ml

Ordering Information

Type Stainless Steel	KS 47
304 SS	17307400

Replacement Parts

		KS 47
		Type 304 SS
1-4	Vent valve set	19307220
5	Inlet body	-
6	Back pressure support	19307404
7	O-ring (silicone)	19304712
8	Support screen	19304715
9	Underdrain support	19307204
10	Outlet body	-
11	Locking ring	-
12	Inlet/outlet adapter	19301510
	Gasket for inlet/outlet adapter	19321014
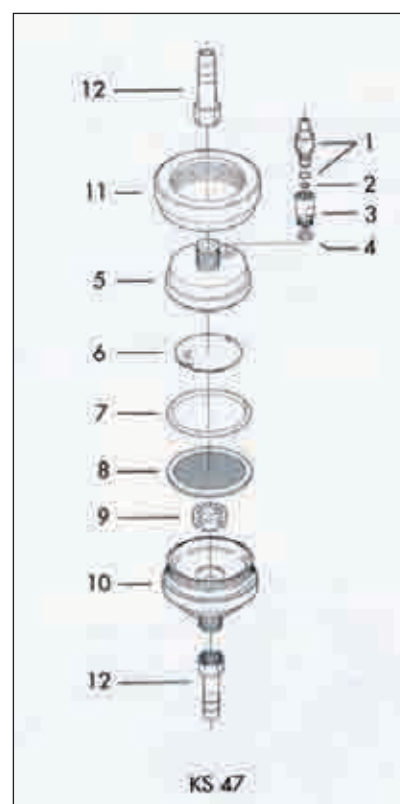
Large Standard Stainless Steel – 90, 142, 293 mm

- **Seal membrane by hand tightening** locking wing nuts
- **Optimal holder design** minimizes resistance and maximizes flow rate
- **Each unit labelled** with identifying serial numbers on the outside of both the inlet and outlet plates

Applications

- Use in-line for filtering gases or liquids
- Use with pressure vessels for batch type operations

KS 90

Specifications

	KS 90	KS 142	KS 293
Materials:			
Body	Type 304 stainless steel		
Support screen	PTFE (Teflon) coated photoetched stainless steel		
O-rings	Silicone		
Gaskets	PTFE		
Connection:			
Inlet and outlet, 3⁄4" PS to:	11 mm hose barb	11 mm hose barb	16 mm hose barb
Pressure:			
Inlet	7 kg/cm^2	7 kg/cm^2	7 kg/cm^2
Differential	3 kg/cm^2	3 kg/cm^2	3 kg/cm^2
Membrane Compatability:			
Filter size	90 mm	142 mm	293 mm
Prefilter size	76 mm	124 mm	257 mm
Filtration area	45 cm^2	113 cm^2	530 cm^2

Supplied with aluminium wrench (spanner) and 6 mm allen wrench (hex key).

KS 142

KS 293

Ordering Information

Type Stainless Steel	KS 90	KS 142	KS 293
304 SS	17301700	17301900	17302500

❯ Replacement Parts

		Material	KS 90	KS 142	KS 293
1	¾" PSM Inlet adapter	SUS304	19301713	19301713	19302510
2	Gasket for Inlet adapter	PTFE	19301710	19301710	19301710
3	Vent valve	SUS304	19301711	19301911	19301911
4	Stopsheet for vent valve	PTFE	-	-	-
5	Gasket for vent valve	PTFE	19301712	19301912	19302512
6	Sealing wing nut				
7	Sealing washer	SUS304	-	19301770	19301773
8	Sealing bolt				
9	Handle for Inlet plate	SUS304	-	-	-
10	Inlet plate	SUS304	-	-	-
11	Flow deflector	SUS304	-	-	-
12	O-ring	Silicone	19301705	19301905	19302505
13	Support screen	PTFE coatet SS	19301704	19301904	19302504
14	Gasket	PTFE	19301703	19301903	19302503
15	Underdrain support	SUS304	19301702	19301902	19302502
16	Outlet plate	SUS304	-	-	-
17	Leg bolt	SUS304	19301760	19301760	-
18	Leg washer				
19	Leg	SUS304	-	-	-
20	¾ " PSF Outlet adapter	SUS304	19301717	19301717	19302511

KS 90, KS 142

KS 293
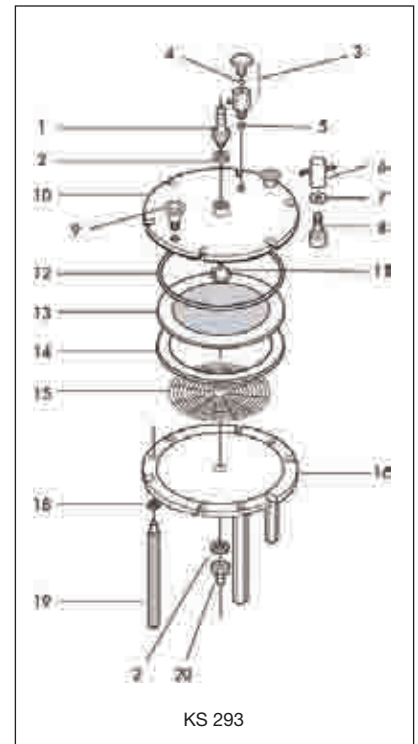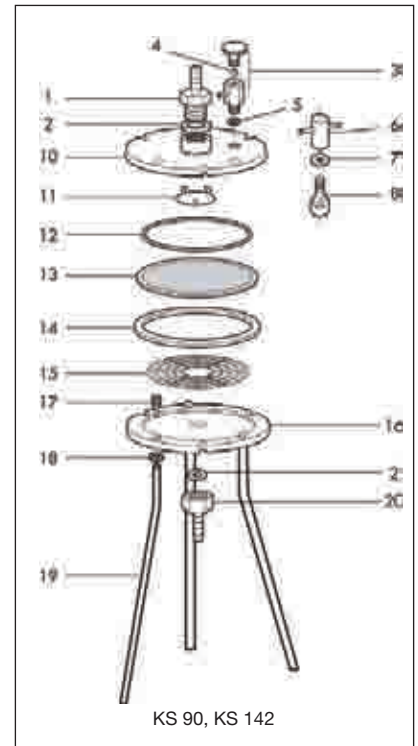
Large Sanitary Stainless Steel Holders – 90, 142, 293 mm

- **Sanitary connections** are non-threaded and can be completely disassembled for thorough cleaning
- **Designed for** minimal resistance and maximal flow
- **Removable wing nuts** tighten easily by hand to seal membrane
- **Both inlet and outlet plates clearly marked** with identifying serial numbers

Applications

- Ultraclean or sterilize gases or liquids
- Use with a pressure vessel for large volume and batch type operations

KS 90 ST

KS 142 ST

Specifications

	KS 90 ST	KS 142 ST	KS 293 ST
Materials:			
Body	Type 304 stainless steel		
Support screen	PTFE (Teflon) coated photoetched stainless steel		
O-rings, gaskets	PTFE (Teflon), silicone rubber		
Connection:			
Inlet / outlet:	1.0"	1.0"	1.5"
	sanitary fitting to 16 mm hose barb	sanitary fitting to 16 mm hose barb	sanitary fitting to 16 mm hose barb
Pressure:			
Inlet	7 kg/cm^2	7 kg/cm^2	7 kg/cm^2
Differential	3 kg/cm^2	3 kg/cm^2	3 kg/cm^2
Membrane Compatibility			
Membrane filter size	90 mm	142 mm	293 mm
Prefilter size	76 mm	124 mm	257 mm
Filtration area	45.3 cm^2	113 cm^2	530 cm^2

Supplied with aluminium wrench (spanner) and 6 mm allen wrench (hex key).

KS 293 ST

Ordering Information

Type Stainless Steel	KS 90 ST	KS 142 ST	KS 293 ST
304 SS	17301800	17302100	17302700

Pressure Filtration

❯ Replacement Parts

		Material	KS 90 ST	KS 142 ST	KS 293 ST
1	Clamp, 1.5S	SUS304	19306000	19306000	19306000
2	Inlet/Outlet adapter	SUS304	19306200	19306200	19306200
3	Inlet/Outlet gasket	Silicone	19306100	19306100	19306108
4	Inlet plate	SUS304	-	-	-
5	Vent valve	SUS304	19301711	19301911	19301911
6	Stopsheet for vent valve	PTFE	-	-	-
7	Gasket for vent valve	PTFE	19301712	19301912	19302512
8	Sealing wing nut				
9	Sealing washer	SUS304	19301770	19301770	19301773
10	Sealing bolt				
11	Flow deflector	SUS304	-	-	-
12	O-ring	Silicone	19301705	19301905	19302505
13	Support screen	PTFE coatet SS	19301704	19301904	19302504
14	Gasket	PTFE	19301703	19301903	19302503
15	Underdrain support	SUS304	19301702	19301902	19302502
16	Outlet plate	SUS304	-	-	-
17	Leg bolt	SUS304	19301760	19301760	-
18	Leg washer				
19	Leg		-	-	-

KS 142 ST