

User Guide

Steriflip® Filter

SCGP00525, SE1M179M6, SE1M003M00,
SCNY00020, SCNY00040, SCNY00060,
SCNY00100, SC50FL025

Sterile. Single-Use Only.

WARNING: Do not use the Steriflip® filter in direct patient care applications or diagnostic procedures; it was designed for laboratory use only.

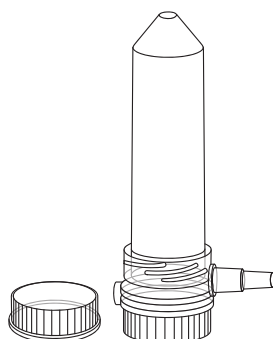
Introduction

The Steriflip® filter is a disposable, sterile filtration system used in the preparation of tissue culture media, buffers, microbiological media, and other aqueous solutions.

This unit comes packed with a Steriflip® filter and a sample tube cap.

WARNING: This device is not rated for pressure-driven filtration and may cause damage or injury if you apply pressure.

CAUTION: This unit is sterile when packaged. Check to see if the package is damaged or if the seal is broken. If there is any damage, contact Technical Service before using.



Chemical Compatibility

Steriflip® filters are compatible with most aqueous solutions including:

- Aqueous buffers
- Cell culture media
- Clorox® bleach (5% solution)
- Water

Many factors such as variability in temperature, concentrations, and duration of exposure affect the chemical compatibility of filtration devices. Test your solution before use.

CAUTION: Perform filter binding analysis before filtering very dilute proteins, hormones, or drug solutions.

Materials Required

The user must supply the following materials to use the Steriflip® filter:

- Vacuum source (with tubing)
- Sample in 50 mL centrifuge tube

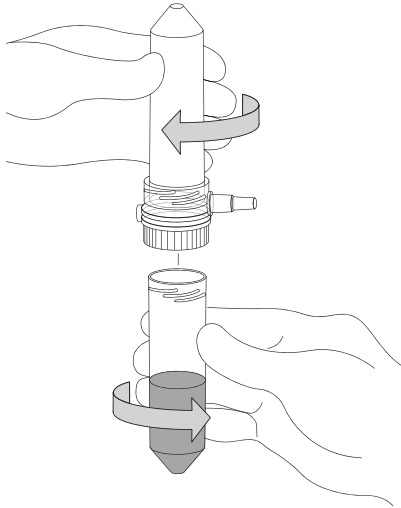
Standard 50 mL tubes come in two thread types: Single-lead and Double-lead. Steriflip® filters are compatible only with double-lead threaded tubes. These have two leads, 180° from each other, that wind around the tube from its top. The following chart lists the manufacturers and part numbers of Steriflip® filter-compatible 50 mL tubes.

Tube	Catalogue Number
BD Falcon™	352070, 352098
Fisherbrand®	05-539-6, 05-539-7, 05-539-8, 05-539-9
Greiner®	210261, 210270, 227261, 227270
Iwaki®	2341-050
Nunc™	334959, 334940
Perfector Scientific	2650

CAUTION: Leakage may occur if the Steriflip® filter is attached to a single-lead tube.

How to Use the Steriflip® Filter

1. Remove a filter unit and tube cap from the packaging using aseptic technique.
2. Place the sample to be filtered into a 50 mL threaded sample tube.
CAUTION: Do not filter more than 50 mL of solution through a Steriflip® filter; solution may leak into the vacuum source and cause damage.
3. Screw the Steriflip® filter into the top, open end of the sample tube. **Secure it tightly.**

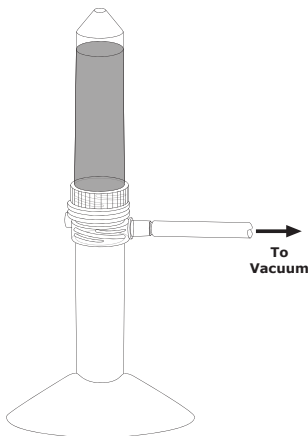


4. Flip over the assembly so that the sample tube is above the Steriflip® filter. Place the complete assembly into a tube base, rack, or tray.

CAUTION: Be sure to keep the assembly in an upright position while filtering to ensure proper filtration.

5. Attach a regulated vacuum source to the vacuum port on the side of the Steriflip® filter.
 - The universal tubing adapter provided with each system fits most vacuum hoses.
 - Use a 1 L vacuum filtering side-arm flask with stopper and Millex®-FG₅₀ vent filter.

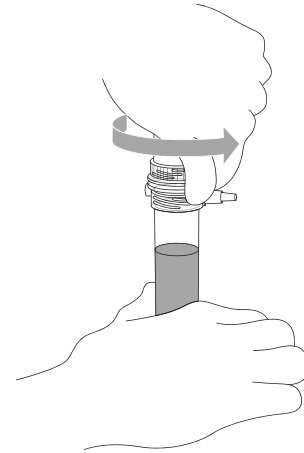
WARNING: Wear eye protection whenever using glass or plastic vessels under partial vacuum.



6. Turn on the vacuum source to draw the solution through the membrane into the empty sample tube at the base.

NOTE: If you use a water aspirator as the vacuum source, use a check-valve or in-line catch flask to prevent the system from accidentally drawing water into the receiving bottle.

7. Disconnect the vacuum source when filtration ends. Unscrew the Steriflip® filter, along with the empty tube, and dispose of according to all applicable international, federal, state, and local regulations.



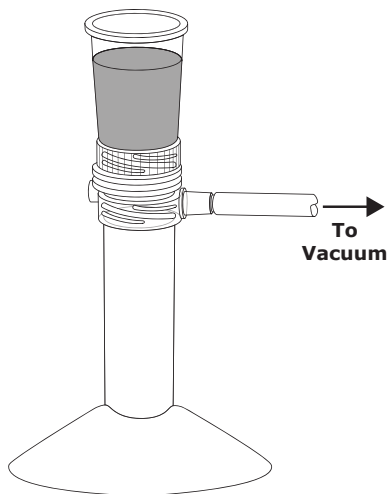
8. Cap the tube containing the filtered sample, using aseptic technique.

How to Use the Steriflip® Filter with a 50 mL Funnel

With some applications, foaming may occur during filtration. To prevent this, use a 50 mL funnel accessory that screws into the top of the Steriflip® filter.

(See "Product Ordering" for information on how to order the funnel.)

1. Remove a filter unit, tube cap, and 50 mL funnel from their packaging trays using aseptic technique.
2. Screw the funnel into the top of the Steriflip® filter and place the complete assembly into a tube base, rack, or tray.
3. Pour the sample to be filtered into the funnel.
4. Attach a regulated vacuum source to the vacuum port on the side of the Steriflip® filter.
 - The universal tubing adapter provided with each system fits most vacuum hoses.
 - Use a 1 L vacuum filtering side-arm flask with stopper and Millex®-FG₅₀ vent filter.
5. Turn on vacuum source to draw the solution through the membrane into the empty sample tube at the base.



6. Disconnect the vacuum source when filtration ends. Unscrew the unit, along with the empty funnel, and dispose appropriately. Cap the tube containing the filtered sample using aseptic technique.

Specifications

Materials of Construction

Steriflip® Filter	Acrylic
Tube	Polypropylene
Adapter	Polyethylene
Vent matrix	Ultra-high-molecular-weight polyethylene
Vacuum port matrix	Cellulose acetate
Tube stand (1 per box)	Styrene

Membranes

GP	0.22 microns (µm) Express PLUS® PES (Polyethersulfone), hydrophilic
GV	0.22 µm Durapore® PVDF (Polyvinylidene fluoride), hydrophilic
HV	0.45 µm Durapore® PVDF, hydrophilic
NY20	20 µm Nylon net
NY40	40 µm Nylon net
NY60	60 µm Nylon net
NY1H	100 µm Nylon net

Effective filtration area 6.7 cm² (1.04 in²)

Capacity 50 mL

Sterilization method Gamma irradiation

Storage temperature limit 4 °C to 45 °C (39 °F to 113 °F)

Product Ordering

Purchase products online at SigmaAldrich.com/products.

Description	Pore Size	Membrane	Qty.	Catalogue No.
Steriflip®-GP filter with cap	0.22 µm	Express PLUS® PES	25/pk	SCGP00525
Steriflip®-GV filter with cap	0.22 µm	Durapore® PVDF	25/pk	SE1M179M6
Steriflip®-HV filter with cap	0.45 µm	Durapore® PVDF	25/pk	SE1M003M00
Steriflip®-NY20 Steri-Strainer with cap	20 µm	Nylon Net	25/pk	SCNY00020
Steriflip®-NY40 Steri-Strainer with cap	40 µm	Nylon Net	25/pk	SCNY00040
Steriflip®-NY60 Steri-Strainer with cap	60 µm	Nylon Net	25/pk	SCNY00060
Steriflip®-NY1H Steri-Strainer with cap	100 µm	Nylon Net	25/pk	SCNY00100
Steriflip® filter funnel attachment, 50 mL, non-sterile			25/pk	SC50FL025
Millex®-FG ₅₀ filter, for vacuum line protection	0.2 µm	Hydrophobic Polytetrafluoroethylene (PTFE)	10/pk	SLFG05010

Additional Items

Description	Qty.	Catalogue No.
Vacuum/pressure pump		
115V, 60 Hz	1	WP6111560
220V, 50 Hz	1	WP6122050
100V, 50/60 Hz	1	WP6110060
Steriflip® filter funnel attachment, 50 mL, non-sterile	25/pk	SC50FL025
Filtering Flasks		
Millipore® Vacuum Filtering Side-Arm Flask (1 L)	1	XX1014705
Threaded Side-Arm with Quick Vacuum Disconnect (1 L)	1	XX1514706
Stoppers		
No. 8, 9.5 mm (3/8 in.) hole, Silicone with Parylene Coating	5/pk	XX2014718
No. 8, Perforated, Silicone with Parylene Coating	5/pk	XX1014708
	50/pk	SLGP033RS
Millex®-GP filter with Millipore Express® PES membrane	250/pk	SLGP033RB
	1000/pk	SLGP033RK
Stericup®-GP Filter with Express PLUS® Membrane		
Funnel capacity 150, 150 mL bottle with cap	12/pk	S2GPU01RE
Funnel capacity 250, 250 mL bottle with cap	12/pk	S2GPU02RE
Funnel capacity 500, 500 mL bottle with cap	12/pk	S2GPU05RE
Funnel capacity 500, 1000 mL bottle with cap	12/pk	S2GPU10RE
Funnel capacity 1000, 1000 mL bottle with cap	12/pk	S2GPU11RE
Steritop®-GP Filter with Express PLUS® Membrane		
Funnel capacity 150, 33 mm thread	12/pk	SCGPS01RE
Funnel capacity 250, 33 mm thread	12/pk	SCGPS02RE
Funnel capacity 500, 33 mm thread	12/pk	SCGPS05RE
Funnel capacity 150, 45 mm thread	12/pk	S2GPT01RE
Funnel capacity 250, 45 mm thread	12/pk	S2GPT02RE
Funnel capacity 500, 45 mm thread	12/pk	S2GPT05RE
Funnel capacity 1000, 45 mm thread	12/pk	S2GPT10RE
Steripak™-GP Filter with Express PLUS® Membrane		
Steripak™-GP ₁₀ filter	3/pk	SPGPM10RJ
Steripak™-GP ₂₀ filter	3/pk	SPGPM20RJ

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