

MicroFunnel™ Plus Filter Funnels

Revolutionize the way you monitor your water system and eliminate the risk of contamination with a combined filter funnel and sample cup.

- Product includes sample container and filter funnel all in one. No need to transfer sample from cup to disposable funnel and risk introducing contamination.
- MicroFunnel Plus AP unit allows aseptic collection of the sample through the lid sample port on the filter funnel. No need to remove lid.
- MicroFunnel Plus products with Supor® membrane are designed to allow sampling of hot water up to 90 °C.
- Vented lid snaps to a liquid-tight seal and allows filtration without having to open the funnel and risk introducing contamination.
- Vent filter ensures no airborne contamination is drawn into the funnel during filtration.
- Product attaches directly to a standard laboratory manifold or to an adapter on a stopper.



- Volume graduations are clearly marked for ease in measuring your sample volume.
- Each unit is individually bagged and labeled for added assurance of sterility and lot traceability.

Applications

Routine monitoring of water systems is a significant part of quality control. Any improvements you can make to your protocol can free up time, space, and money in a busy laboratory. The proven design of MicroFunnel filter funnels has been taken one step further to improve the efficiency of monitoring water systems with increased protection from contamination. Remove lid and collect water sample in the MicroFunnel Plus filter funnel and snap the vented lid to a liquid-tight seal for transporting the protected sample back to the laboratory. Or, with the MicroFunnel Plus AP, you can aseptically collect your sample by attaching the sterile sampling tube (sold separately, PN 4845) from the funnel directly to the sample port on a water line. The vented lid allows filtration without ever having to open the filter funnel.

These combined features reduce the supplies needed for water monitoring and, more importantly, eliminate steps that could potentially contaminate your sample.

A separate sample cup is no longer necessary for collection, and there is no need to transfer your sample into a disposable funnel for concentration. The vent filter prevents airborne contamination that could be drawn into the funnel during filtration.

- The MicroFunnel Plus and MicroFunnel Plus AP with 0.45 or 0.2 μm Supor membrane is designed for sampling hot water, such as found in hot loop WFI systems.
- Gridded 0.45 μm GN-6 Metrical® membrane is ideal for analysis of ambient water by Membrane Filter (MF) Technique.
- The MicroFunnel Plus filter funnel can be used to sample and test any liquid products, whether hot or cold, including water from any point in the production process, raw materials, intermediates, and final product.

Specifications

Materials of Construction

Filter Media:

GN-6 Metrical (mixed cellulose ester) membrane
(PN 4807, 4829)

Metrical Black (modified polyethersulfone) membrane,
black (PN 4808)

Supor (hydrophilic polyethersulfone) membrane, white
(PN 4809, 4813, 4814, 4823, 4843, 4844)

Support Pad: Cellulose

Funnel and Base: Polypropylene

Adhesive Gasket: Urethane

Funnel Cover: Polyethylene

Lid and Base Vent Membrane: Hydrophobic Versapor®
(acrylic copolymer on a non-woven support) membrane

Bag: Polyethylene

Adapter: Polyethylene

Lid Plug: Polypropylene (4843, 4844)

Base Plug: Polyethylene (PN 4807, 4808)

Effective Filtration Area

13.46 cm²

Dimensions

100 mL Funnel

Height: 7.6 cm (3.0 in.) with cover

Diameter: 6.1 cm (2.4 in.) with cover

300 mL Funnel

Height: 8.9 cm (3.5 in.) with cover

Diameter: 8.7 cm (3.4 in.) with cover

Maximum Vacuum

63.5 cm Hg (25 in. Hg)

(Vacuum Use Only)

Maximum Sample Collection Temperature

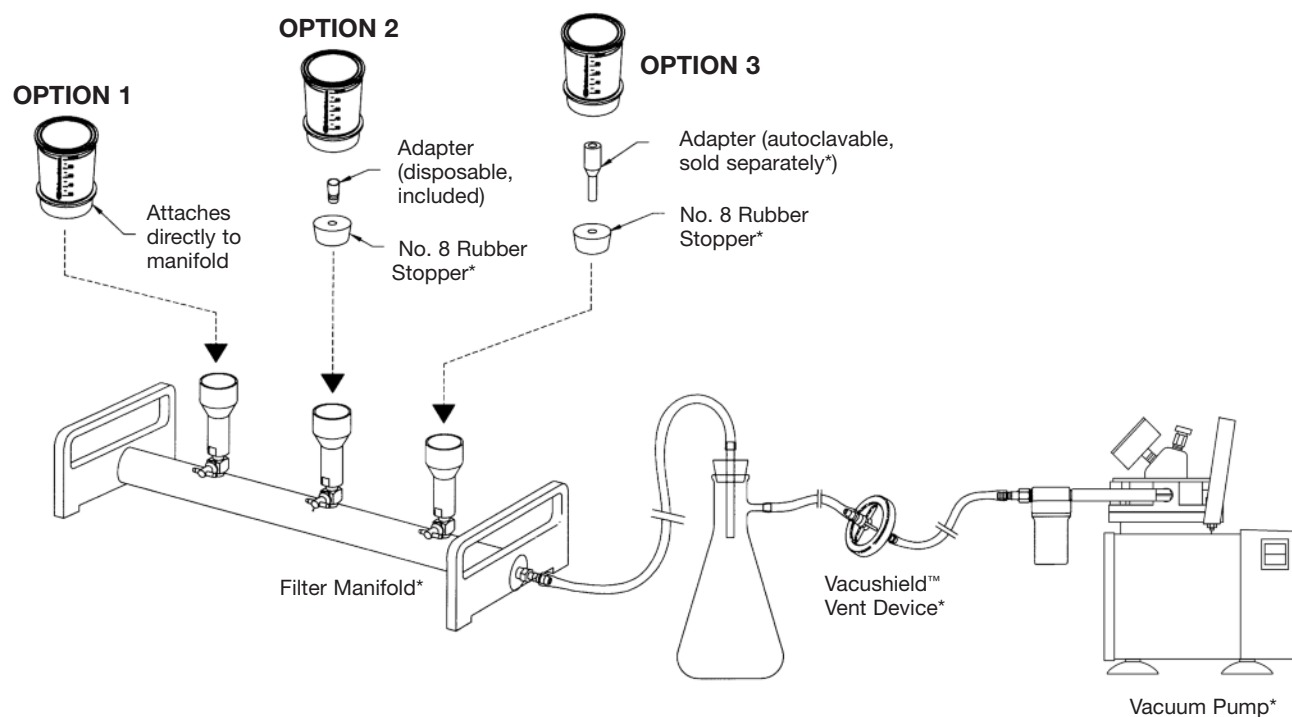
PN 4807, 4808, 4829: Ambient

PN 4809, 4813, 4814, 4823, 4843, 4844: 90 °C (194 °F)

Sterilization

Individually bagged and gamma irradiated

MicroFunnel™ Plus Filter Funnel System Setup



*See Complementary Products list for product ordering information.

Instructions for Use

Sampling Ambient Water Using the MicroFunnel Plus Filter Funnel



1. Carefully remove the vented lid and collect the sample.



2. Securely snap lid in place to prevent sample loss. Transport sample to laboratory for filtration.



3. Remove membrane vent from base, place funnel directly onto manifold, and filter the sample.



4. Gently grasp funnel then remove and discard lid.



5. Release cylinder from base by squeezing the midpoint of the cylinder.



6. Remove the membrane, plate the filter, and incubate.

Collecting Hot Water Samples Using the MicroFunnel Plus Filter Funnel



1. Place funnel into holder with graduations visible through the viewing slot. Carefully remove the vented lid and collect the hot water sample.



2. With funnel and holder resting on a firm, level surface, securely snap lid in place to prevent sample loss. Remove funnel from holder and transport sample to laboratory for filtration.

(Proceed with steps 3-6 for ambient water.)

Note: When using this product for sampling hot water, observe safety precautions which include the use of insulated rubber gloves, safety glasses, and Pall Life Sciences funnel holder (PN 4824 for 100 mL funnels and PN 4825 for 300 mL funnels).

Sample Collection Using the MicroFunnel Plus AP Filter Funnel



1. Remove the lid plug on the MicroFunnel Plus AP sample port. Open the sampling tube bag at one end and place the tube on the sample port.



2. Remove the sampling tube bag and connect the other end of the tube to the sanitized sample port.



3. After the sample is collected, remove the tube and replace the lid plug. Transport sample to laboratory for filtration.
(Proceed with steps 3-6 for ambient water.)

Ordering Information

MicroFunnel Plus Filter Funnels, 100 mL, Gamma Irradiated

Part Number	Description	Pkg
4807*	0.45 µm GN-6 Metrical membrane, white, gridded, individually bagged	50/pkg
4808*	0.45 µm Metrical Black membrane, gridded, individually bagged	50/pkg
4809	0.2 µm Supor membrane, white, gridded, individually bagged	50/pkg
4823	0.45 µm Supor membrane, white, gridded, individually bagged	50/pkg

MicroFunnel Plus Filter Funnels, 300 mL, Gamma Irradiated

Part Number	Description	Pkg
4813	0.2 µm Supor membrane, white, gridded, individually bagged	20/pkg
4814	0.45 µm Supor membrane, white, gridded, individually bagged	20/pkg
4829*	0.45 µm GN-6 Metrical membrane, white, gridded, individually bagged	20/pkg

MicroFunnel Plus AP Filter Funnels, 100 mL, Gamma Irradiated

Part Number	Description	Pkg
4843	0.2 µm Supor membrane, white, gridded, individually bagged	50/pkg
4844	0.45 µm Supor membrane, white, gridded, individually bagged	50/pkg

* PN 4807, 4808, and 4829 are not compatible with hot water applications.

Complementary Products

Filter Funnel Manifolds

Part Number	Description	Pkg
15408	1-place aluminum for use with MicroFunnel Filter Funnels	1/pkg
15411	3-place aluminum for use with MicroFunnel Filter Funnels	1/pkg
15413	6-place aluminum for use with MicroFunnel Filter Funnels	1/pkg
15402	3-place aluminum	1/pkg
15403	6-place aluminum	1/pkg
82728	No. 8 rubber stopper	1/pkg
4701	Adapter, autoclavable	3/pkg

Funnel Holder**

Part Number	Description	Pkg
4824	100 mL	1/pkg
4825	300 mL	1/pkg

Miscellaneous Product

Part Number	Description	Pkg
13157	Vacuum/pressure pump, 115 V	1/pkg
13158	Vacuum/pressure pump, 230 V	1/pkg
4402	Vacushield Vent device, 0.45 µm, 50 mm, hose barb	3/pkg
51147	Stainless steel forceps, black grips	1/pkg
4690	Stainless steel forceps, multi-colored grips (1 each of orange, blue, chartreuse)	3/pkg
4713	Milliflex* vacuum pump adaptor	1/pkg
4845	MicroFunnel Plus AP sampling tubes, individually bagged	50/pkg

** Always use holder when sampling hot water.



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