

# ***FILTRATION***

*Introduction to Filtration*

*Syringe Filters*

*High Capacity Groundwater Filters*

*Disposable Vacuum Filter Units*

*Reusable Filters*

*Filter Transfer Vessel*

**It's so easy to filter your samples on site!**

There are two methods of on-site filtering: filtration during and filtration after sampling.

**Filtration After Sampling**

Filtration after sampling is done once the sample has been taken. Pressure or vacuum is applied to the sample, drawing it through a filter membrane. This can be done with a syringe and filters or with a vacuum hand pump and filter bottle.



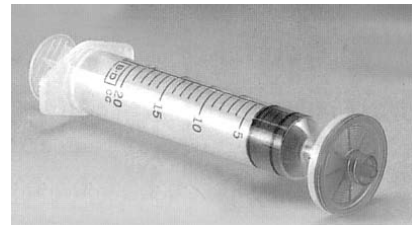
**Filtration During Sampling**

Filtration during sampling can be carried out by joining an in-line filter to the sample pumps discharge line, this can then be run into a sample bottle for storage/transport.



**Luer Lock Syringes & Filters**

Ready to use units for filtering groundwater, this range of disposable filters and syringes make sampling for metals simple and easy. No more wasting valuable time on decontaminating your equipment, as they come individually packed - contamination free. Both the syringe and filter have luer lock fittings that make use in the field quick and easy.



**Ordering Information**

- SAT16555K Filter Luer Lock 0.45um, 5.3cm<sup>2</sup>, Individually or Box 50
- SAT17824K Pre-Filter Luer Lock 0.7um, 5.3cm<sup>2</sup>, Individually or Box 50
- MCF19067TE Syringe Luer Lock, 60ml, Box 20

**Catheter Tip Syringes & Disposable Filter Cartridges**

Using these wide tip syringes with a GELBARBP hose barbs, you can connect to any larger filter with cartridge that has a 1/8in. NPT male thread. This technique offers fast filtering time with very low cost items.



**Ordering Information**

- MCF19040TE Syringe Catheter Tip, 60ml, Box 20

**Filter right out of the bailer in one easy step!**

Using the WAT45<sup>sm</sup> or WMT45 filters with Clear-View Disposable bailers and a short length of 1/4" (6 mm) OD poly tube, (cut at 45 deg on each end) you can connect the bailer outlet to the filter inlet. Then let the water drain out of the bailer through the filter.

- Low cost filtering
- No intermediary vessels required
- Fully disposable, no cleaning
- Quick filtering for low turbidity water



## High Capacity Groundwater Filters

Disposable groundwater sampling filters eliminate the need to carry bulky reusable filter holders into the field as well as their time-consuming decontamination process. High capacity groundwater filters can be used inline, with syringes or straight from a bailer.

### WAT45™ & WMT45 Groundwater Filters

The WAT45™ High-Capacity Groundwater Sampling Filter offers 600cm<sup>2</sup> of effective 0.45 micron filtration area. This reduces the need for multiple filter changes with large or very silty groundwater samples.

The WMT45 is identical except for a smaller 300cm<sup>2</sup> of filter area for less turbid samples and less cost.

The WAT45® also offers the user greater flexibility over other products by providing a compound inlet. It has both a 3/8in. (10mm) threaded nipple and a 1/2in. (12.6mm) hose barb allowing the filter to be attached easily to a variety of pumps and tubing sizes.



**Tip:** Use a short length of 1/2in. OD tubing to connect Micropurge discharge tubing to the filter inlet. For a spout, a short length of 5/8in. OD tubing can be joined to the outlet.

#### Specifications & Ordering Information

<b>WTPWAT45</b>	High Capacity filter
<b>Material</b>	Polyethersulphone
<b>Filt. Area</b>	600cm <sup>2</sup>
<b>Length</b>	80mm
<b>Diameter</b>	75mm
<b>WTPWMT45</b>	Medium Capacity filter
<b>Material</b>	Polyethersulphone
<b>Filt. Area</b>	300cm <sup>2</sup>
<b>Length</b>	80mm
<b>Diameter</b>	75mm

### QED QuickFilter

QuickFilters are the original ground water sampling filter cartridges for field use, developed to meet the stringent purity requirements of sensitive ground water quality monitoring programs. When sample filtration is required, disposable QuickFilter cartridges are easier to use, faster and provide more consistent results than other filtration methods. When used directly in-line with a proper sampling pump, QuickFilters provide additional benefits of eliminating sample alteration due to air contact and/or sample quality changes with time and temperature.

QuickFilters include premium polyethersulfone membrane-type filtration media and special support materials to deliver the 3 features vital to ground water sample filtration:

- Maximum flow capacity, based on membrane type and surface area
- Accurate particle size cutoff, to deliver consistent filtrate quality even in highly turbid waters
- Assured purity to avoid possible sample contamination



**BULK DISCOUNTS 25, 50, 100**

Item Code	Capacity	Area	Filter Material	Pore Size	Max. Pressure
QEDFF8200	High	609 cm <sup>2</sup>	Polyethersulfone	0.45 microns	60 psi (4.1 bar)
QEDFF8100	Standard	30 cm <sup>2</sup>	Polyethersulfone	0.45 microns	60 psi (4.1 bar)
QEDFF8101	Standard	30 cm <sup>2</sup>	Polypropylene	1.00 microns	60 psi (4.1 bar)
QEDFF8201	High	609 cm <sup>2</sup>	Polypropylene	1.00 microns	60 psi (4.1 bar)
QEDFF8205	High	609 cm <sup>2</sup>	Polypropylene	5.00 microns	60 psi (4.1 bar)

### VGWC Groundwater Filter

The VGWC high capacity, disposable groundwater filter capsule is designed specifically for field filtering groundwater samples for metal analysis. It features 1/8in. NPT threaded inlet and outlets with stepped hose adapter on the inlet side for in line filtering of pumped samples with up to 3/8in. ID tubing.

The VGWC features a true membrane element of 0.45 micron, certification for 67 metals and 2 anions and filtering capacity of 1 litre for most turbid samples.

#### Specifications & Ordering Information

<b>VOSGWC</b>	High Capacity Filter
<b>Material</b>	Inert materials
<b>Filt. Area</b>	600cm <sup>2</sup>
<b>Length</b>	60mm
<b>Diameter</b>	75mm



### Disposable Filter Units Vacuum filter bottles

- Fast field filtration
- Saves you time and decontamination costs

Vacuum-driven filtration and storage devices for volumes from 150 mL to 1 L.

Simply hook up vacuum pump to draw water from the top vessel into the bottom vessel. Comes with a lid for the bottom vessel so the sample can be transported. The filter media has a pore size of 0.45µm.

### Stericups™ -

Use a quality Durapore media for faster flow rates and a broad chemical compatibility. The vessels have a large filtration area for faster filtering.



#### Specifications & Ordering Information

**MILSCHVU01RE** Stericup-HV 150ml bottle with cap, Box 12

**MILSCHVU02RE** Stericup-HV 250ml bottle with cap, Box 12

**Housing material** Polystyrene

**Membrane material** (PVPDF) Low protein binding Durapore

**Filter Diameter** 73mm

**Filter Pore Size** 0.45µm

**Filtration Area** 40cm<sup>2</sup>

### Nalgene -

Filter units with Cellulose Nitrate (CN) membrane. CN is validated by the USA EPA for all water quality testing.



#### Specifications & Ordering Information

**NAL125-0045** Nalgene Filter Unit 150ml with cap, Box 12

**Housing material** Polystyrene

**Membrane material** Cellulose Nitrate

**Filter Diameter** 50mm

**Filter Pore Size** 0.45µm

**Filtration Area** 20cm<sup>2</sup>

### Vacuum Hand Pumps

#### Ideal for field or lab use

These durable pumps easily and quickly attain and hold vacuum of 635mm Hg. They have a stroke of 36cc/stroke and .48 bar (7psig) positive pressure at the exhaust port.

The nozzle fits standard 1/4" ID tubing. Supplied with 600mm length of Nalgene 180 clear plastic tubing. Lightweight units are sealed and self-lubricating. Ideal for siphoning, filtration, liquid transfer, bleeding fluid lines, checking for equipment leaks and adjusting vacuum-operated apparatus.

**Note: When transferring liquids, use air trap to prevent liquid from entering pump.**

The VOSPBHP comes switch to select between vacuum or pressure applications. The QEDMHP is a metal hand vacuum pump with gauge.



#### Ordering Information

**VOSPBHP** Vacuum Pump, Hand Operated, Plastic - with gauge

**QEDMHP** Vacuum Pump, Hand Operated, Zinc Alloy - with gauge

### Nalgene Reusable Bottle Filter with Receiver

Nalgene reusable filters reduce the amount of waste released into the waste stream for environmentally friendly microbiological analysis. Holders permit sterilisation or analytical filtration, using vacuum or pressure. For use with 47mm or 50mm membranes.

Major holder components are transparent polysulfone (PSF). PSF is nontoxic, exhibits low protein-binding and is easy to clean. PSF contains extremely low levels of trace metals or organic leachables and has fairly good chemical resistance.

Two side-arms allow connection to vacuum line; also accept syringe filters.

#### Pre-filter Option

A glass fibre pre-filter disc may be placed in the funnel on top of the membrane and secured by a convenient tab for difficult to filter solutions.



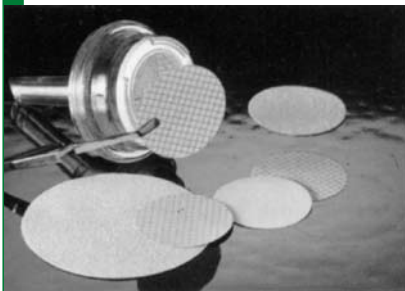
#### Specifications & Ordering Information

<b>NAL300-4050</b>	Nalgene Reusable Filter Unit 500ml top & bottom *Requires filter papers
<b>Housing material</b>	Polysulfone
<b>Membrane material</b>	Sold separately
<b>Filter Diameter</b>	Accepts 47-50mm

\*Requires filter paper - see membrane filters

### Membrane Filters

These membranes conform to standard methods and can be autoclaved at 121°C. The white Nitrocellulose membranes are 47mm in diameter and 0.45um pore size.



#### Specifications & Ordering Information

<b>MILHAWG04700/150</b>	Filter membranes Pk 150
<b>Membrane material</b>	Nitrate & acetate
<b>Filter Diameter</b>	47mm
<b>Filter Pore Size</b>	0.45um
<b>MILAP1504700</b>	Pre-Filter, Glass Fibre, 47mm, pk 100

### QED QuickFilter Transfer Vessel

#### How it works

1. Fill the flask with your groundwater sample.
2. Connect disposable filter to the outlet port.
3. Connect tubing of the hand pump to the inlet port and pressurize the vessel.
4. Draw filtered water in a collection vessel.
5. Decontaminate ready for the next sample.

#### Features

- Clear flask allows sample to be seen as it's transferred
- Oring seals to ensure leak proof operation
- Fits any filter capsule with a 1/8in. male thread



#### Specifications

<b>Volume</b>	1100ml
<b>Height</b>	320mm
<b>Outside Dia</b>	133mm
<b>Weight</b>	1.4kg
<b>Cap Material</b>	Polypropylene
<b>Reservoir Material</b>	Styrene-Acrylonitrile
<b>Max Pressure</b>	125 psi

#### Ordering Information

<b>QEDFF8500</b>	QuickFilter Transfer Vessel and handpump. Capacity 1.5L
Filters sold separately	

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