Membrane Solutions

HPLC Sample Preparation

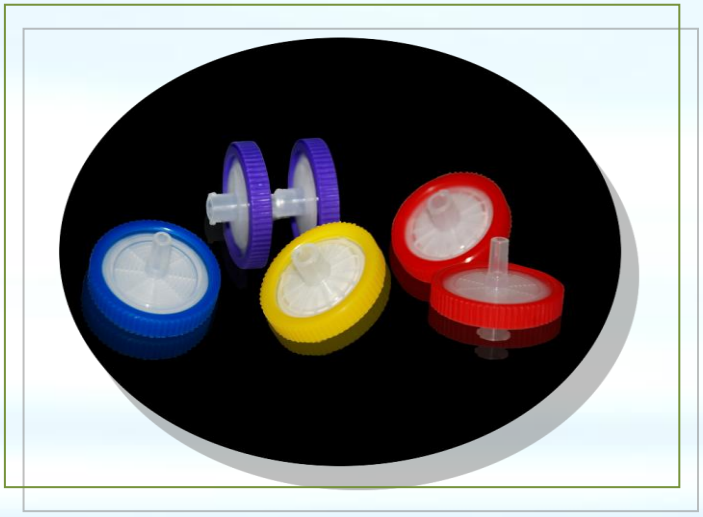
Catalogue 2016

Contents

Membrane Solutions

ChromPure™ Syringe Filter

With high-quality Membrane



MS ChromPure™ Syringe Filters are syringe-operated filters for the clarification of aqueous solutions (column eluates,HPLC samples,etc).

It is offered at a fair and competitive price. It is further to do the beautification appearance on general syringe filters basis and containing high quality membrane materials to make your experiment performance more perfect. Its unique design of gear edge, make the products more beautiful and innovative.

The Classic range is available in all of the major membranes including Nylon, PTFE, PVDF, CA and PES, which are supplied in 13mm, 25mm formats in virgin medical polypropylene housings.

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Features

Easy twist:

Gear rim ring for better handling

Color coding:

Easier to tell the filter

Application Compatibility:

Broad range of filtration media meets diverse application needs

and best for chromatography application

Sterile:

Filters can be purchased pre-sterilized by gamma radiation and individually packaged membrane

Better membrane media:

Improved membrane flow rates

Technical specifications

Parameters	13mm	25mm
Effective Filtration Area(cm^2)	1.09	4.08
Maximum Pressure	87 psi (6.0 bar) at 20 °C	87psi (6.0 bar) at 20 °C
Maximum Operating Temperature	50°C	50°C
Materials of Construction	Housing: Polypropylene	Housing: Polypropylene
	Filtration Media: As specified	Filtration Media: As specified
Holdup volume (µl)	<25	<100
Sample volume (ml)	<10	<100
Connectors	Inlet: Female Luer Lock (FLL) Outlet: Male Slip Luer (MSL)	Inlet: Female Luer Lock (FLL) Outlet: Male Slip Luer (MSL)
Flow Direction	Flow from inlet to outlet (FLL to MSL)	Flow from inlet to outlet (FLL to MSL)

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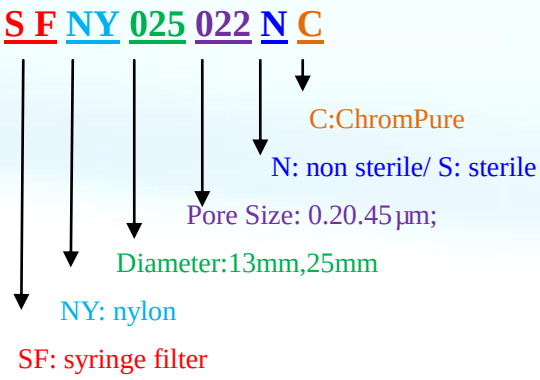
Ordering information：

A: How to order?



Application

HPLC sample preparation

Routine QC analysis

Content uniformity

Removal of protein precipitates

Dissolution testing

Food analysis

Biofuel analysis

Environmental samples

Exclusive Distributors Wanted

Standard Sample Pack			
Nylon syringe filter (100pcs)		PTFE syringe filter (100pcs)	
	13mm, 0.22/0.45μm,		13mm, 0.22/0.45μm,
	25mm, 0.22/0.45μm,		25mm, 0.22/0.45μm,
PVDF syringe filter (100pcs)		PES syringe filter (100pcs)	
	13mm, 0.22/0.45μm,		13mm, 0.22/0.45μm,
	25mm, 0.22/0.45μm,		25mm, 0.22/0.45μm,
GF syringe filter (100pcs)		MCE syringe filter (100pcs)	
	13mm, 0.22/0.45μm,		13mm, 0.22/0.45μm,
	25mm, 0.22/0.45μm,		25mm, 0.22/0.45μm,

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SuperPure™ Syringe Filter

5 Improvements , Same Low Price , 10 Days Delivery

New range of HPLC 17mm, 30mm Syringe Filters Superpure™ 17 mm, 30 mm color-coded syringe filters are designed to speed up and increase sample volume throughput while reducing thumb pressure. All with HPLC certification.

Application

- HPLC sample preparation
- Content uniformity
- Removal of protein precipitates
- Dissolution testing
- Environmental samples

Features and Benifits

- Color coding: Easier to tell the filter membrane
- Larger filtration areas: Increased sample throughout
- Added sample distribution ring: Improved membrane flows
- High resolutions print: Easier to tell the pore size of filter
- Better membrane media: Improved membrane flow rates
- Application Compatibility: Broad range of filtration media meets diverse application needs
- Minimum sample hold-up: Syringe Filters' housings are specifically designed to maximize sample recovery
- Sterile: Filters can be purchased pre-sterilized by Gamma radiation and individually packaged

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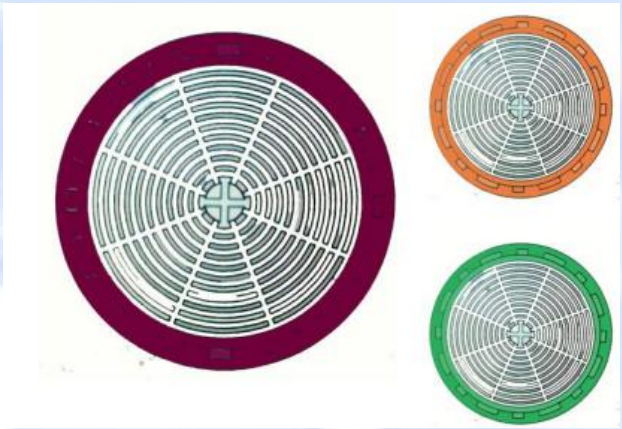
Validated HPLC Performance

Agilent Technologies 1200, Column: C18 UV = 254 nm Mob.phase:MeOH/H2O:20:80, Temperature: 25°C, Flow rate:0.8ml/min, sample:2mg/ml Bergenin(in Methanol)

Parameters	17mm	30mm
Housing material	Virgin Medical Polypropylene	
Effective Filtration area (cm^2)	1.65	5.39
Pore Size (µm)	0.22, 0.45	0.22,0.45
Holdup volume (µl)	<25	<100
Sample volume (ml)	<20	<200
Inlet connection	Female luer lock	Female luer lock
Outlet connection	Male luer slip	Male luer slip
Maximum Operating Temperature	50°C	50°C
Maximum Operating Pressure	6 bar	6 bar

More information please visit our website www.membrane-solutions.com.

Or mail us at : info@membrane–solutions.com



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MS® Hdrophilic PTFE Syringe Filter

MS® Hydrophilic PTFE syringe filters are using special hydrophilic PTFE membrane as the filter medium.This material has a maximal chemical and pH resistance,and optically clear when wet with water.Hydrophilic PTFE syringe filter is a versatile filter for aqueous and aggressive organic solvent-based solutions,and especially ideal for HPLC operation.Pure polypropylene housings and color-coding housings include smooth rim or gear rim are all available.

Features

- Low Protein binding fine particle removal from aqueous and organic solutions.
- Accurate analysis HPLC certified for low levels of UV-absorbing extractables.
- High flow rates with minimal

Application

- Highly recommended for filtering HPLC samples and mobile phases.
- Organic solvent with strong chemical causticity filtration.

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Order Information

Catalogue No.	Membrane	poresize(μm)	Quantity/pack(pcs)
SFPTFE013022NL	PTFE	0.22	100
SFPTFE013045NL	PTFE	0.45	100
SFPTFE017022NL	PTFE	0.22	100
SFPTFE017045NL	PTFE	0.45	100
SFPTFE025022NL	PTFE	0.22	100
SFPTFE025045NL	PTFE	0.45	100
SFPTFE030022NL	PTFE	0.22	100
SFPTFE030045NL	PTFE	0.45	100
SFPTFE013022SL	PTFE	0.22	100
SFPTFE013045SL	PTFE	0.45	100
SFPTFE017022SL	PTFE	0.22	100
SFPTFE017045SL	PTFE	0.45	100
SFPTFE025022SL	PTFE	0.22	100
SFPTFE025045SL	PTFE	0.45	100
SFPTFE030022SL	PTFE	0.22	100
SFPTFE030045SL	PTFE	0.45	100

Note:

Membrane medium with pp or glass fiber prefilter are available.

Membrane Solutions

MS® Sample Vials

Introduction

MS®sample vials provide advantages over the standard straight glass sample vials. The flared end of the vial makes loading a liquid sample much easier since the flare helps guide the syringe needle into the vial. The flared end also makes the vial much stronger so that vials can easily be inserted and removed from the end of the probe using tweezers without breaking the glass.

Features

Raw Material: Glass tubing, Borosilicate, Type 1, Class A from Schott. Computerized camera system for quality control throughout the manufacturing process to test critical dimensions, including Height, Diameter, Bottom Thickness and Neck/Thread. Only vial/cap/septum combination tested by LCMS for cleanliness Cap/Septum — tested by head space GC to ensure proper curing of silicone polymer

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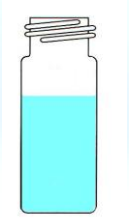
Order Information

2mL Screw Top Vials



LBSV082C	2mL clear vial, 10-425 screw top
LBSV002C	2mL clear vial, 9-425 screw top
LBSV012C	2mL clear vial, 8-425 screw top
LBSV092C	2mL clear vial, 10-425 screw top, graduated with writing area
LBSV022C	2mL clear vial, 9-425 screw top, graduated with writing area

LBSV082A	2mL amber vial, 10-425 screw top
LBSV002A	2mL amber vial, 9-425 screw top
LBSV012A	2mL amber vial, 8-425 screw top
LBSV092A	2mL amber vial, 10-425 screw top, graduated with writing area
LBSV022A	2mL amber vial, 9-425 screw top, graduated with writing area
LBSV032A	2mL amber vial, 8-425 screw top, graduated with writing area

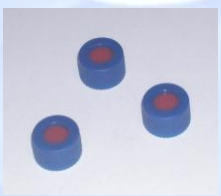
2mL Crimp Top Vials

LBSV042C	2mL clear vial, crimp top
LBSV062C	2mL clear vial, crimp top, graduated with writing area
LBSV042C	2mL amber vial, crimp top

Septa for 2mL Vials

LBSV02RS	White PTFE/red Rubber septa, for 2mL 8-425 screw top vial
LBSV02SS	Red PTFE/white silicone septa, for 2mL 8-425 screw top vial
LBSV03RS	White PTFE/red Rubber septa, for 2mL 9-425 screw top vial
LBSV03SS	Red PTFE/white silicone septa, for 2mL 9-425 screw top vial
LBSV23SS	Blue PTFE/white silicone septa, Pre-slit, for 2mL 9-425 screw top vial
LBSV33SS	Red PTFE/white silicone/red PTFE septa , for 2mL 9-425 screw top vial
LBSV04RS	White PTFE/red Rubber septa, for 2mL crimp top vial
LBSV04SS	Red PTFE/white silicone septa, for2mL crimp top vial

Cap for 2mL Vials



LBSV002	Blue screw cap with hole, for 2mL 9-425 screw top vial
LBSV012	Black screw cap with hole, for 2mL 8-425 screw top vial
LBSV032	Blue screw cap with hole, for 2mL 8-425 screw top vial
LBSV022	Aluminium cap with hole, for 2mL crimp top vial

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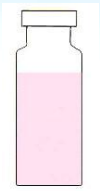
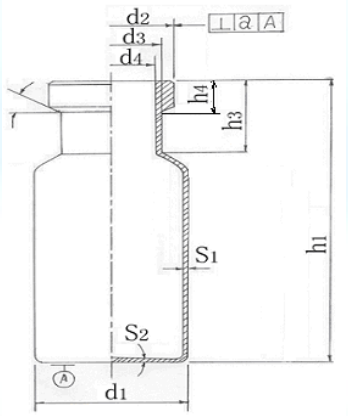
Technical specifications

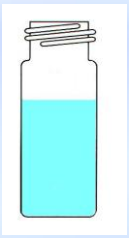
2mL crimp top vials

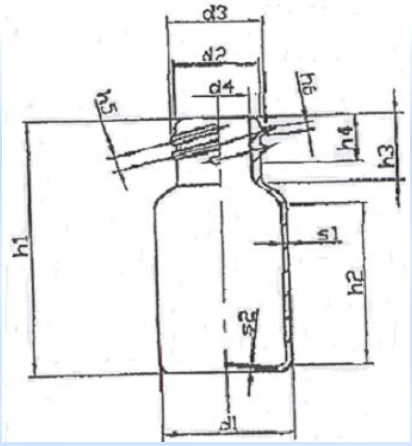




d1	11.6±0.3
h1	32.0±0.5
d2	10.7±0.2
d4	6.0±0.2
h4	3.6±0.2
d3	8.3±0.3

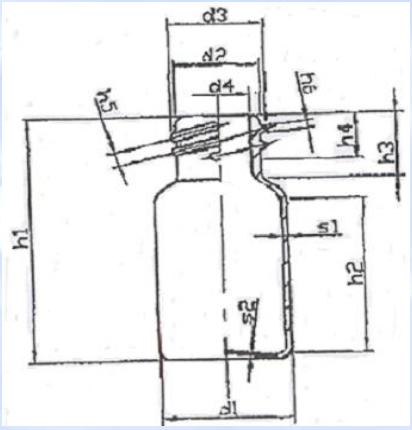
2mL screw top vials (8-425)





d1	11.6±0.25
d2	≤8.0
d4	5.0±0.30
h1	32.0±0.50
d3	8.8±0.30
h3	≈7.8
h5	1.6

2mL screw top vials (9-425)



d1	11.6±0.2
d2	8.1-8.5
d4	6.0±0.20
h1	32.0±0.50
d3	9.4±0.25
h3	7.3-7.9
h5	≈1.2
h6	≈0.9

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MS® Syringeless Filter Devices

Syringeless filters are preassembled filtration devices specially used in HPLC for the purification and analysis of samples.It is a single disposable unit contains the function of common samples bottles (including the lid and cushions), disposable needles and syringe filters.

Each unit includes two parts: a chamber and plunger.A filtration membrane on the end of the plunger and pre-attached cap/septum on the other.When using, sample is injected into below chamber,then press the plunger manual,positive pressure forces the filtrate up into the reservoir of the plunge.

MS ®syringeless filter adopt standard size, can cooperate with HPLC instrument perfectly. Two membrane aperture are available to meet all of your filtration needs:0.22μm and 0.45μm,all materials such as PVDF, Nylon, PTFE, PES, PP are available.Syringeless filters are specially designed for the filtration of small doses of sample, especially suitable for the light sensitive and air sensitive compounds analysis.

NEW!

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Choosing guide

Membrane	Typical application
Nylon	water/organic phase samples filtration
PTFE	chemical corrosive liquid filtration
PVDF,CA	lower nonspecific protein medium analysis
PES	the sample which need low protein filtration
PP	conventional filter and dissolve the matrix filtration

Application

- HPLC sample preparation
- Hard to filter sample preparation
- Rapid filtration samples
- Temporary test sample preparation
- Soluble detection
- Protein deposition
- Dissolution test
- Suitable for any mixture that need to avoid light

Features

- Can be pressed manual or by pressing machine
- The whole sample processing save 1/3 time
- Suitable for automatic sampler or manual injection
- The membrane material diversification
- Protect samples against UV damage
- Amber tube protect light sensitive samples against photochemical degradation
- Translucent amber tube easy for observation
- Suitable for high throughput automation

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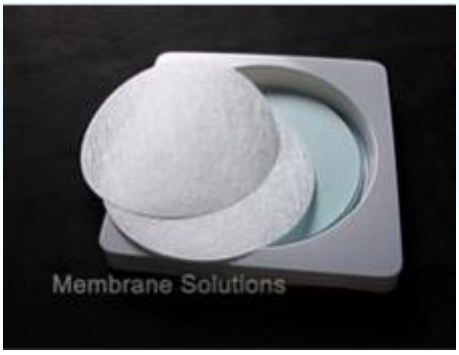
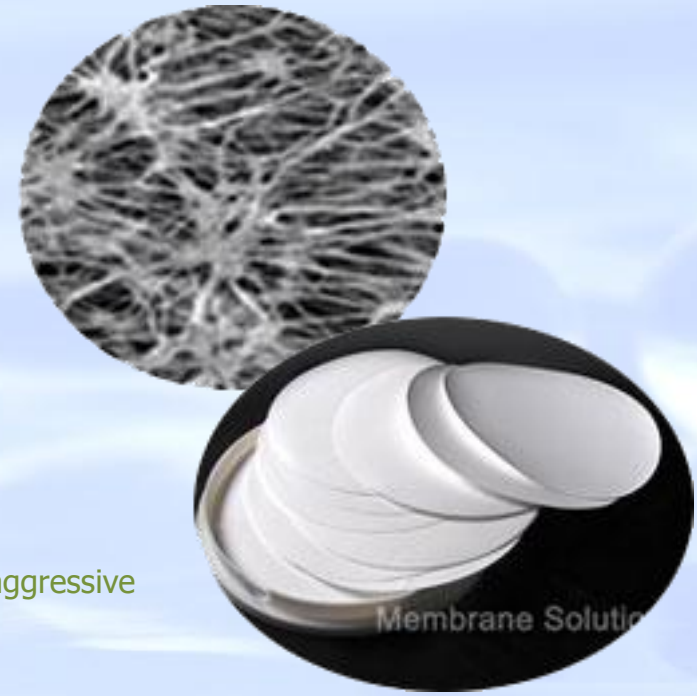
MS® PTFE/Nylon Membrane Filter



MS®PTFE membrane media for filtration is made of PTFE (polytetrafluorothylene), and were drawn 2-demension. It is micro-pore film. The PTFE membrane was laminated with great variety of fabric and paper. They are new filter media. Applied to extensive industries, including biochemistry, microelectronic, lab material and etc. Directly and indirectly related to pharmacy brewing, manufacture of pure water and special need water, beverage and dairy, chemical regent, biochemical regent, air filtration of fementation tank in microelectronic, purification and filtration in microelectronic plants, filtration and separation of antibacterial fluid, production of medicine, air conditioning of hospitals and commercial buildings.

Features

- PTFE membrane with supporting layer polyester or polypropylene
- The PTFE membrane can effectively filtrate microorganism and other particulates
- Wide chemical compatibility
- High temperature resistance
- Low starting resistance



Application

- Filtration of strong acids and aggressive solutions
- Venting applications
- Phase separations
- Aerosol samplings

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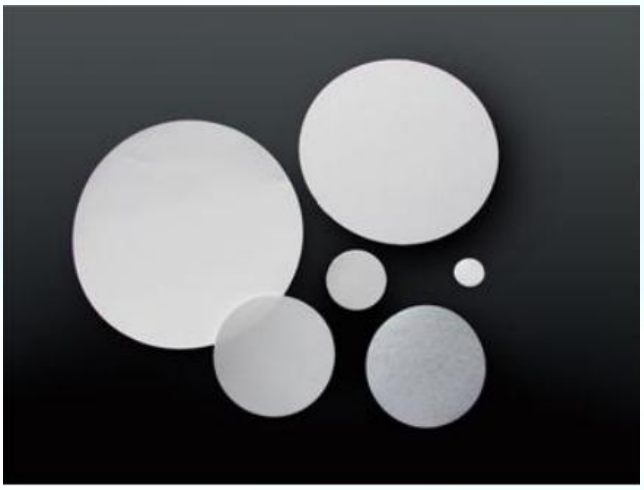
MS® Nylon membrane filter is a supported, naturally hydrophilic membrane designed to wet out evenly and retain its superior strength during use in general filtration or medical assays, eliminating the need for wetting agents that could be extracted when filtering aqueous solutions. Nylon membrane filters are flexible, durable and tear resistant, and can be autoclaved at 135° C.



Features

- Hydrophilic
- Low extractable
- High surface area
- High protein binding capacity
- Lot-to-lot consistency
- Binds proteins, DNA and RNA
- High strength and heat resistance
- Ideal for use in general filtration or medical assays
- Compatible with aqueous and alcoholic solutions and solvents; suitable for HPLC

Application

- Bacterial and Particulate removal
- HPLC Solvent and Sample Filtration
- Diagnostic kit manufacturing
- Biosensors
- Blood glucose
- Drug filtration
- Gene probe, Protein and Lateral flow assays
- Serum cholesterol
- IV filters

Membrane Solutions

MS® Glass Vaccum Filters Set

MS® Glass Solvent Filters

- All-glass design restricts contact with reactive surfaces such as steel or rubber to minimize contamination of sample or filtrate.
- Standard 47/50mm filtration funnels mount on filtration flask using a ground glass joint.
- Outlet of support base drip tube is positioned below the side arm connection to prevent sample aspiration into vacuum line.
- All wetted surfaces are borosilicate glass with the exception of stainless steel and PTFE support options.
- The performance of withstanding voltage and its leakproofness is very good. Its size agrees with the international standard size.
- It can be used for sterilization at high temperature and high pressure.

Application

Glass Vacuum Filter aqueous, organic or corrosive liquids for particulate contamination analysis
It is recommended for HPLC solvent filtration and it has the function of outgas to guarantee the clean of mobile phase and avoid the blockage of HPLC liquid flow path.

Specifications

Materials		
Funnel, base unit and flask	Borosilicate glass	
Support	Borosilicate glass frit, stainless steel, or PTFE	
Connection:		
Ground glass joint	14/20 female, 40/35 female	
Side arm	6 mm (3/8 inch), 6 mm (3/8 inch)	
Capacity:		
Funnel	300ml	500ml
Receiver flask	1000ml	2000ml
Suitable Membrane	Φ47orφ50	φ60

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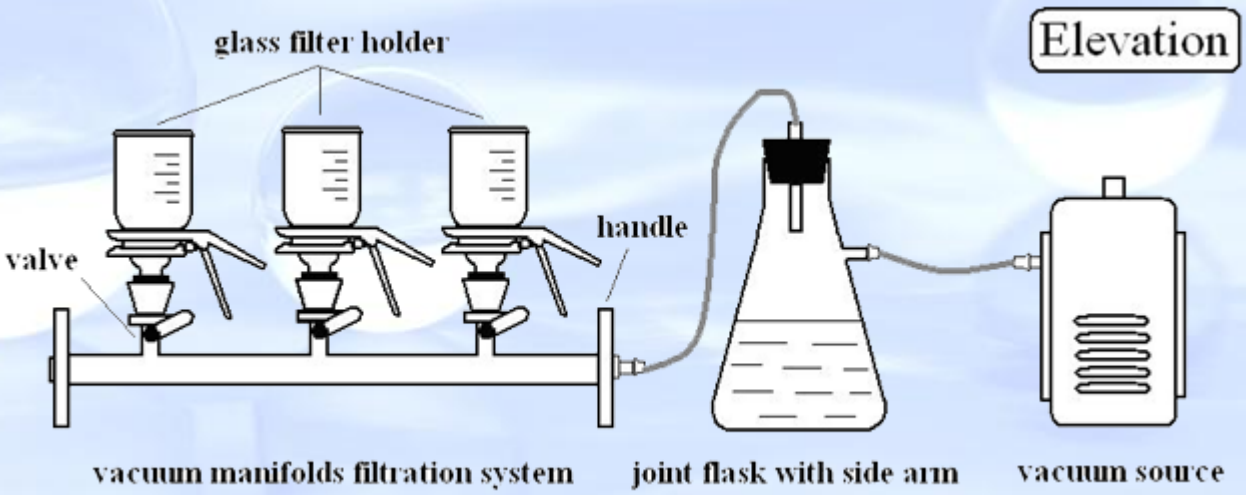
MS® Multiple Vacuum Filtration Systems

MS® Multi-branch Manifold filter is particular design and produce for several samples filtrate at the same time. At present domestic laboratory filtrate liquid usually adopts the glass nature core, while this method only filtrates one sample once, and it has low speed, low efficiency, and less labor exertion. It is more convenience for the operator who needs to filtrate several samples at the same time. Because each filter holder have individual control valve, only one set vacuum pump can sustain the single or Multi-branch manifold filter operate together. While stainless steel nature of the Multi-branch Manifold filter holder can filtrate at 180℃ temperature ;and the high-quality extra hard glass is elegant in workmanship, and be able to bear up 200℃ range of temperature.

Aluminum clip reasonable design closely, can clip filter glass and intermediate filtration heads together, ensure strict seal without leakage.The design is reasonable, don't exist cleaning corner,not stockpile liquid and easy to clean. While stainless steel material is acidproof and alkali and hard to corrosion,make the analytical results more stable and reliable.



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Features

- Each station uses separate control valve for independent operation,easy to use and disinfection,has a high efficiency.
- This system can filtrate three or six samples at the same time,has a high sensitivity, low rate of false positives and operate simplely.
- Sturdy units have low center of gravity so they won't tip when full loaded.
- Anodized aluminium handles on both ends for positioning on bench top.

Application

- Widely used for chemistry analysis
- biochemical-pharmaceutical sanitation test
- environment test
- water quality analysis
- foodstaff, beverage and science research and so on.

Order Information

Item#	Format	Funnel	Valve	Sieve-plate	Suitable Membrane	Hosepipes	Mode of connection
VFM0101G	One Glass Filter Holders	300ml	PTFE	PTFE,20μm	φ47orφ50	Two pieces	Ground glass
VFM0101S	One Stainless Steel Holders	300ml	PTFE	Stainless Steel,100μm	φ47orφ50	Two pieces	Rubber Plug
VFM0103G	ThreeGlass Filter Holders	300ml	PTFE	PTFE,20μm	φ47orφ50	Two pieces	Ground glass
VFM0103S	Three Stainless Steel Holders	300ml	PTFE	Stainless Steel,100μm	φ47orφ50	Two pieces	Rubber Plug
VFM0106G	Six Glass Filter Holders	300ml	PTFE	PTFE,20μm	φ47orφ50	Two pieces	Ground glass
VFM0106S	Six Stainless Steel Holders	300ml	PTFE	Stainless Steel,100μm	φ47orφ50	Two pieces	Rubber Plug
VFMF300G	Glass Funnel	300ml	——	——	φ47orφ50	——	——
VFMF300S	Stainless Steel Funnel	300ml	——	——	φ47orφ50	——	——
VFMSM01	StainlessSteel Manifold,Single	——	——	——	——	——	——
VFMSM03	StainlessSteel Manifold,For 3 units	——	——	——	——	——	——
VFMSM06	StainlessSteel Manifold,For 6units	——	——	——	——	——	——

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