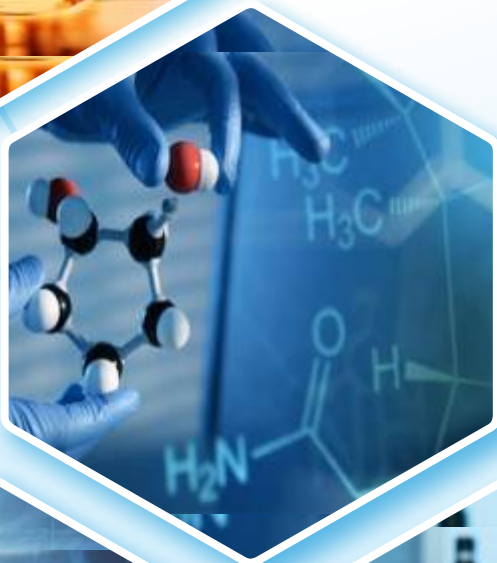




# INVENIOLIFE





## Welcome to Inveniolife

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**Inveniolife Technology Pvt. Ltd. is well established distributor of Life Science research products in India. Our goal is to identify the most promising new technology companies around the globe and to introduce them in this emerging market. Based in the financial capital of India, Inveniolife has significant footprints across key locations in the country through a strongly knit network of channel partners and sub dealers. Inveniolife has strategically diversified in the field of high end and revolutionary technologies in Life Sciences and Biotechnology sector.**



## Syringe Filters

**Inveniolife** syringe filters provide fast and efficient filtration of aqueous and organic solutions and are available in all the major membranes {nylon, hydrophilic & hydrophobic PTFE, regenerated cellulose (RC), PES, MCE, and PVDF} and in three different size formats (4 mm, 13mm, and 25 mm).

Manufactured with virgin medical grade polypropylene plastic, our syringe filters are ideal for a wide range of applications such as pharmaceutical, environmental, biotechnology, food/beverage, and agricultural testing applications. These syringe filters are also available sterile as well as non-sterile form or with a pre-filter layer (PP or GF).

Inveniolife filtration products covers a wide range of applications. Whether it is for removal of particulate matter in your sample before analysis, collection of suspended solids, or protecting instruments or people around from harm, Inveniolife has it.

Manufactured with high quality materials and in a class 10,000 clean room. Inveniolife offers high quality products at cost-effective prices; allowing labs to function efficiently and effectively.



## 4mm Syringe Filter

### ❖ **Key Features:**

- Housing: Virgin medical grade polypropylene (PP)
- Filtration Area: 0.125cm<sup>2</sup>
- Inlet: Female luer-lock
- Outlet: Male luer-slip
- Hold-up Volume: <10 µl
- Packaging: 1000 pcs/pk

### ❖ **Product Details:**

- With luer lock inlet for a more secure fit
- Medical grade polypropylene housing
- Compatible with various chemicals
- Low hold-up volume (<10 µl)
- GMP and ISO 13485 certified
- OEM accepted

### ❖ **Applications:**

- Filtration of aqueous, organic, and alcohol solutions
- Analytical sample prep for HPLC
- IC chromatography
- Fuel hydraulic fluids and machined parts
- Clarification
- Protein chemistry
- Cell culture
- Dissolution testing
- Content uniformity
- Environmental samples
- Composite assays
- Food analysis
- Biofuel analysis



## 13mm Syringe Filter

### ❖ **Key Features:**

- Housing: Virgin medical grade polypropylene (PP)
- Filtration Area: 0.65cm<sup>2</sup>
- Inlet: Female luer-lock
- Outlet: Male luer-slip
- Hold-up Volume: <25 µl
- Packaging: 1000 pcs/pk

### ❖ **Product Specification:**

- With luer lock inlet for a more secure fit
- Medical grade polypropylene housing
- Compatible with various chemicals
- Low hold-up volume (<25µl)
- GMP and ISO 13485 certified
- Low adsorption of analytes
- OEM accepted

### ❖ **Applications:**

- Filtration of aqueous, organic, and alcohol solutions
- Analytical sample prep for HPLC
- IC chromatography
- Fuel hydraulic fluids and machined parts
- Clarification
- Protein chemistry
- Cell culture
- Dissolution testing
- Content uniformity
- Environmental samples
- Composite assays
- Food analysis
- Biofuel analysis





## 25mm Syringe Filter

### ❖ **Key Features:**

- Housing: Virgin medical grade polypropylene (PP)
- Filtration Area: 3.9cm<sup>2</sup>
- Inlet: Female luer-lock
- Outlet: Male luer-slip
- Hold-up Volume: <100 µl
- Packaging: 1000 pcs/pk

### ❖ **Product Specification:**

- With luer lock inlet for a more secure fit
- Medical grade polypropylene housing
- Compatible with various chemicals
- Low hold-up volume (<100 µl)
- GMP and ISO 13485 certified
- Low adsorption of analytes
- OEM accepted

### ❖ **Applications:**

- Filtration of aqueous, organic, and alcohol solutions
- Analytical sample prep for HPLC
- IC chromatography
- Fuel hydraulic fluids and machined parts
- Clarification
- Protein chemistry
- Cell culture
- Dissolution testing
- Content uniformity
- Environmental samples
- Composite assays
- Food analysis
- Biofuel analysis



## 25mm Sterile Syringe Filter

### ❖ **Key Features:**

- Housing: Virgin medical grade polypropylene (PP)
- Filtration Area: 3.9cm<sup>2</sup>
- Inlet: Female luer-lock
- Outlet: Male luer-slip
- Hold-up Volume: <100 µl
- Pore Size: 0.22µm, 0.45µm
- Membrane Diameter: 25mm

### ❖ **Product Specification:**

- New patent NO. D146280
- Compatible with various chemicals
- New patent NO. M417540
- Multiple membranes to choose from
- GMP and ISO 13485 certified
- OEM accepted
- Certified quality
- E.O. Sterilized
- Low extractables and low absorption membrane for minimum sample loss

### ❖ **Applications:**

- Sterilization of Cell Culture Media
- Sterilization of Protein Solution or Aqueous solution
- Filtration of High Value Proteins

Inveniolife Syringe Filter Product Guide				
Diameter	Membrane	Sterile	Pore Size	Characteristic
	PVDF			
	PES			
4 = 4mm	Nylon (NY)		20 = 0.20 µm	
13 = 13mm	PTFE	NS (Non-Sterile)	22 = 0.22 µm	I = Hydrophilic
25 = 25mm	MCE		45 = 0.45 µm	O = Hydrophobic
	CA		100 = 1.00 µm	
	RC			
	GF			
How to make the catalogue Number: - <b>13PTFENS45I</b> = Syringe Filter 13mm PTFE, 0.45µm, Hydrophilic, Non-Sterile				

## Dual Layer Syringe Filter

### ❖ **Key Features:**

- Housing: Virgin medical grade polypropylene (PP)
- Inlet: Female luer-lock
- Outlet: Male luer-slip
- Packaging: 1000 pcs/pk

### ❖ **Advantage:**

- Superior performance
- Extends membrane life
- Doubles the volume throughput when compared to other filters

### ❖ **Applications:**

- Sterilization of Cell Culture Media
- Sterilization of Protein Solution or Aqueous solution
- Filtration of High Value Proteins

Inveniolife Dual Layer Syringe Filter Product Guide					
Diameter	Membrane		Sterile	Pore Size	Charasterstic
	PVDF				
	PES				
	Nylon (NY)			20 = 0.20 µm	
13 = 13mm	PTFE		NS (Non-Sterile)	22 = 0.22 µm	I = Hydrophilic
25 = 25mm	MCE	P=PP	S (Sterile)	45 = 0.45 µm	O = Hydrophobic
	CA	G=GF		100 = 1.00 µm	
	PP				
	RC				
	GF				

How to make the catalog Number:- **25PTFEGNS45I** = 25mm Syringe Filter  
GF+PTFE, 0.45µm, Hydrophilic, Non-Sterile





## Tri-Layer Syringe Filter

### ❖ **Key Features:**

- Housing: Virgin medical grade polypropylene (PP)
- Inlet: Female luer-lock
- Outlet: Male luer-slip
- Packaging: 1000 pcs/pk

### ❖ **Advantage:**

- Superior performance
- Extends membrane life
- Even more increased volume throughput than Dual Layer and other filters

**Inveniolife Tri Layer Syringe Filter Product Guide**

Diameter	Membrane		Sterile	Pore Size	Charasterstic
	PVDF				
	PES				
	Nylon (NY)				
	PTFE		NS (Non-Sterile)	22 = 0.22 µm	I = Hydrophilic
25 = 25mm	MCE	2G=GF1+GF2	S (Sterile)	45 = 0.45 µm	O = Hydrophobic
	CA				
	PP				
	RC				
	GF				

How to make the catalog Number:- **25PTFE2GNS22I** = 25mm Syringe Filter 1st Layer GF + 2nd Layer + PTFE, 0.45µm, Hydrophilic, Non-Sterile



## Membrane Filter

Membrane filters are surface filters used to remove or collect particulates and microorganism for analysis. They are typically used in both the filtration of liquid and air. Our broad offerings of membrane materials (PTFE, regenerated cellulose, nylon, cellulose nitrate, polycarbonate, etc.) provides the user with an array of solvent compatibility options and applications. Some membrane materials are also available in sterile format

Membrane materials are high quality and imported from USA, Japan, and Europe. All of our membranes are handled in a Class 10,000 clean room to ensure it is at its kept at its highest quality and not greatly affected during our processing. We can also provide customised diameters and pore sizes according to an individual's specific needs.

### **Key Features:**

Membrane filters available in wide range of diameters - 13mm, 25mm, 47mm, 90mm, 142mm, 293mm, and custom sizes.

Membrane disc filters provide consistent and reliable results. Optimised for HPLC media preparation, pharmaceuticals, and cold sterilisation, they are available in a range of sizes and membranes. Membrane sizes from disc to roll can be customised.

### **❖ Hydrophobic/Hydrophilic-PTFE Membrane**

1. PTFE membrane with supporting polyester or polypropylene layer
2. Excellent chemical stability and particle retention
3. Apply to aqueous and organic solvent

### ❖ **Nylon Membrane**

1. General filtration
2. Compatible with a broad range of solvents
3. Clarification of aqueous and organic solutions

### ❖ **PVDF Membrane**

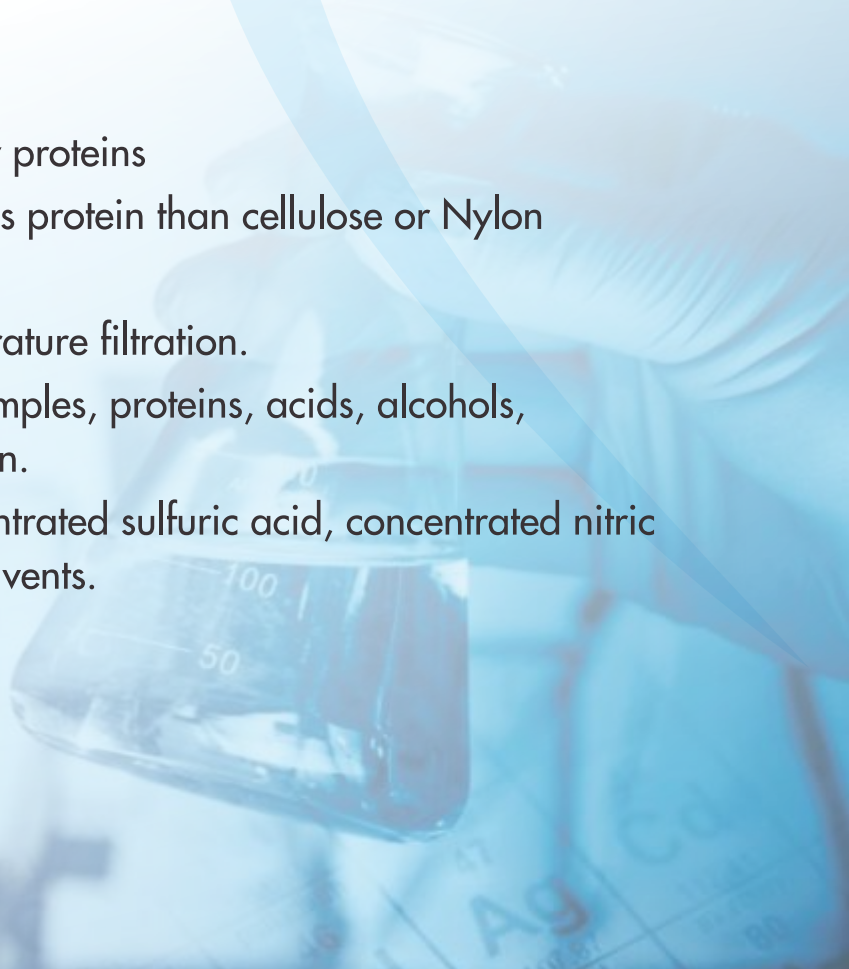
1. High flow rates and throughput
2. Low extractable
3. Broad chemical compatibility
4. Bind far less protein than Nylon or PTFE membrane

### ❖ **MCE Membrane**

1. High flow rates and throughput
2. Excellent thermal stability with very low adsorption
3. Suitable for aqueous solution

### ❖ **PES Membrane**

1. Minimizes loss of key proteins
2. Binds significantly less protein than cellulose or Nylon
3. High Flow Rate
4. Liquid of high temperature filtration.
5. Use with aqueous samples, proteins, acids, alcohols, aliphatic hydrocarbon.
6. Don't use with concentrated sulfuric acid, concentrated nitric acid, strong polar solvents.





### ❖ CA Membrane

1. Filtration for aqueous sample
2. Cell Retention for liquid
3. Minimises loss of proteins
4. Binds significantly less protein than cellulose or Nylon
5. High Flow Rate
6. Liquid of high temperature filtration.
7. Use with aqueous samples, proteins, acids, alcohols, aliphatic hydrocarbon.
8. Don't use with concentrated sulfuric acid, concentrated nitric acid, strong polar solvents.

### ❖ RC Membrane

1. Low non-specific adsorption
2. Suitable for aqueous and organic samples

InvenioLife Membrane Filter Product Guide					
Membrane Disc	Diameter	Membrane	Sterile	Pore Size	Charasterstic
		PVDF			
	013 = 13mm	PES		20 = 0.20 µm	
	025 = 25mm	Nylon (NY)		22 = 0.22 µm	
M	047 = 47mm	PTFE	NS (Non-Sterile)	45 = 0.45 µm	I = Hydrophilic
	090 = 90mm	MCE		100 = 1.00 µm	O = Hydrophobic
	142 = 142mm	CA		300 = 3.00 µm	
	293 = 293mm	RC		500 = 5.00 µm	
		GF			
How to make the catalog Number:- <b>M-13PTFENS45I</b> = 13mm Membrane Filter PTFE, 0.45µm, Hydrophilic					

# Microbiological Filtration Products.

## 1. Vacuum Driven Sterile Filter Cup



### ❖ Key Features:

- Filter Membrane: PVDF, PES
- Capacity: 500 mL
- Thread: GL-45
- Membrane Pore Size: 0.22, 0.45 $\mu$ m
- Membrane Diameter: 47 mm
- Membrane Diameter: 47 mm
- Made in Taiwan
- 12pcs/CTN

### ❖ Description

- Sterilized through gamma irradiation
- Filtration Area: 15.2 cm<sup>2</sup>
- Hold-up Volume:  $\geq$ 3 ml
- Bacterial Retention: 0.22 micron pore size :  $1 \times 10^{-7}$  cfu per cm<sup>2</sup> (*Brevundimonas diminuta*)

The vacuum driven filter cup is specifically designed for microbiological and analytical quality assurance. While it can also act as a sterile funnel, the filter cup provides rapid filtration for the conventional microbiological analysis of drugs, cosmetics, food, beverages, water, and other liquids. The funnel was designed with a conical shape for faster filtration. The funnel materials is made of polypropylene and has sufficient elasticity for snap-fit closure. Also, due to the material, liquids does not stick to the sides of the funnel.

### STORAGE SUGGESTION:

We strongly recommends that you run a trial under actual conditions to test the suitability of the bottles' storage.

### WARNING:

If you are using infectious or hazardous materials, please follow the required regulations and procedures for disposal.

**NOTE:** When sterility is required, this product is single use only.

Inveniolife & Millipore Disposable Filtration Unit Comparison		
		
Model	Inveniolife	Millipore
Bottle Thread	GL45	GL45
Lid	Yes	No
Housing Material	PP	PP
Funnel Capacity	500mL	250mL
Membrane Diameter	47mm	47mm
Membrane Included	Optional (membrane type can be chosen)	No
Removeable Membrane	Yes	Yes
Sterility	Optional	No
Funnel Connection	Screw on funnel	Snap on funnel



## 2. Sterile Bottle Top Vacuum Filter



### ❖ Key Features:

- Filter Membrane: PES, PVDF
- Capacity: 500mL
- Thread: GL-45
- Membrane Pore Size: 0.22 $\mu$ m, 0.45 $\mu$ m
- Membrane Diameter: 90mm
- Made in Taiwan quality

### ❖ Product Application

- Suitable for sterile filtration of cell culture media and serum.
- Gamma sterilized
- Large filtration area for increased flow and reduced clogging.
- DNase/RNase and pyrogen free.
- Filter Membrane: PES, PVDF
- Capacity: 500mL
- Thread: GL-45
- Membrane Pore Size: 0.22 $\mu$ m, 0.45 $\mu$ m
- Membrane Diameter: 90mm
- Vacuum Connector: Hose barb
- Polystyrene funnel.
- Polyethylene cap, neck adapter, and connector.



### ❖ **Ordering Information**

Cat No.: INV-PVDF50022I

Description: 0.22 $\mu$ m, 90mm PVDF Membrane, 500ml Sterile  
Bottle Top Vacuum Filter, Sterile

Cat No.: INV-PVDF50045I

Description: 0.45 $\mu$ m, 90mm PVDF Membrane, 500ml Sterile  
Bottle Top Vacuum Filter, Sterile

Cat No.: INV-PES50022I

Description: 0.22 $\mu$ m, 90mm PES Membrane, 500ml Sterile  
Bottle Top Vacuum Filter, Sterile

Cat No.: INV-PES50022I

Description: 0.45 $\mu$ m, 90mm PES Membrane, 500ml Sterile  
Bottle Top Vacuum Filter, Sterile

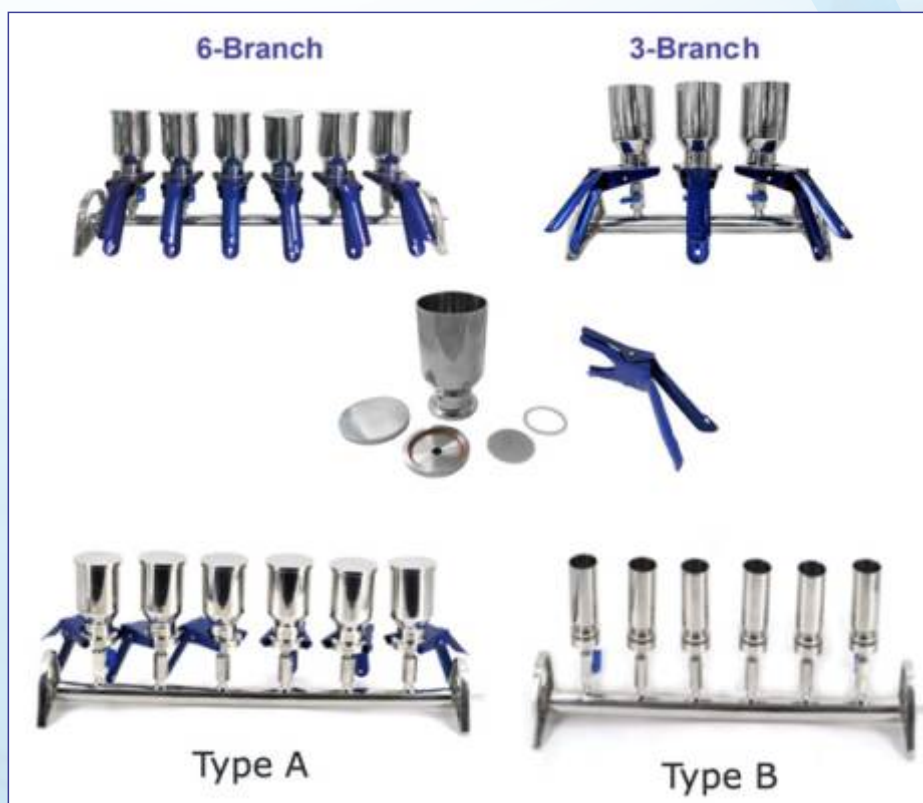
### 3. Stainless Steel Vacuum Manifold

#### ❖ Key Features:

- SUS 316 stainless steel construction
- Excellent chemical resistance
- Individual control valve
- Constructed of SS 316 stainless steel - High chemical and temperature resistance. Set can be sterilized by steam, oven and other sterilization methods.
- Individual Control Switch - Each filter holder has its own control valve, allowing the use of just one place for small jobs, or all places for larger jobs.
- Set includes 316 stainless steel 300mL filter cup (caps sold separately)

#### ❖ Applications :

- Filtration for suspended solid test
- Filtration for microbiology test
- General laboratory filtration





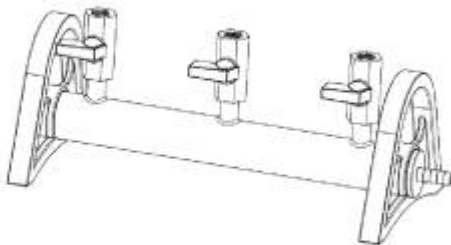
## Stainless Steel Manifold

- Constructed of SUS 316 stainless steel
- High chemical and temperature resistance
- Set can be sterilized by steam, oven and other sterilization methods
- Filtration for suspended solid test
- Individual Control Switch



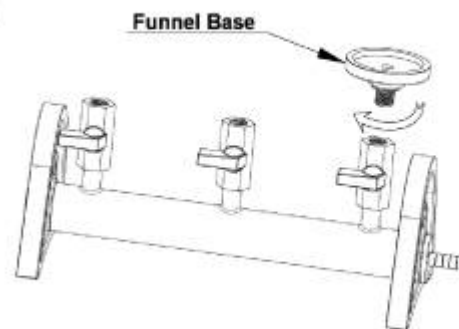
### Assembly instructions

1



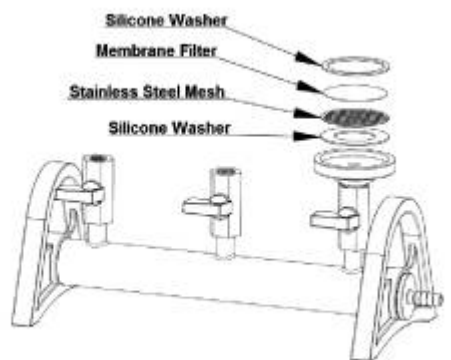
3 Branch Stainless Steel Vacuum Manifold

2



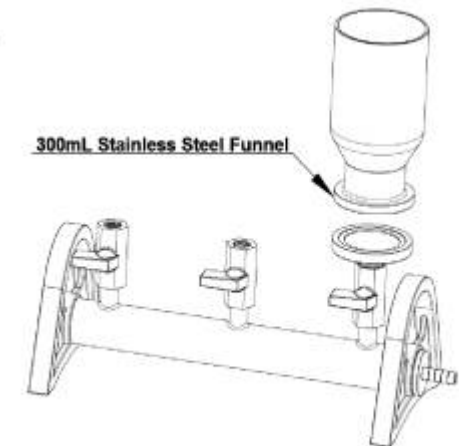
Funnel Base

3



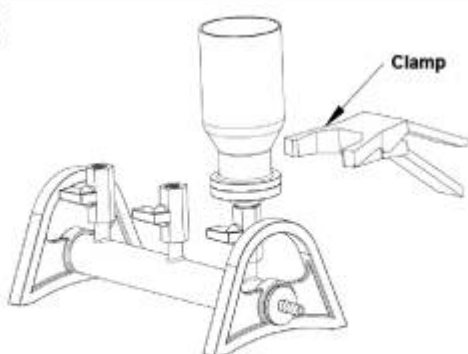
Silicone Washer  
Membrane Filter  
Stainless Steel Mesh  
Silicone Washer

4



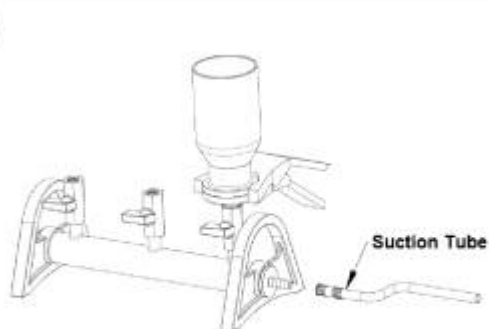
300mL Stainless Steel Funnel

5



Clamp

6



Suction Tube

## Microbiological Filter System

### ❖ Key Features:

We offer complete vacuum microbiological filter system is designed for quick and simple filtration. The system consists of a durable 316 stainless steel manifold, sterile micro funnel filter unit, a reliable vacuum pump, and a waste bottle.



## Membrane Chemical Compatibility

Choosing the right membrane is vital. The wrong membrane could cause loss of valuable samples and also costing the user valuable time and money. To help prevent any issues, please use our membrane chemical compatibility table as a reference.

Sol ent	MCE	CA	PES	Nylon	P DF	PTFE	RC
Acetic Acid (glacial)	X	X	O	X	O	O	LR
Acetone	X	X	X	O	X	O	O
Acetonitrile (ACN)	X	X	X	O	LR	O	O
Benzene	O	O	X	O	O	O	O
Butyl Alcohol	O	O	O	O	O	O	O
Chloroform	O	X	X	X	O	O	O
Cyclohexanone	X	X	X	O	X	O	O
Dimethyl Sulfoxide (DMSO)	X	X	X	O	X	O	O
Ethyl Acetate	X	X	X	O	O	O	O
Ethyl Alcohol	X	O	O	O	LR	O	O
Formaldehyde	X	X	NI	O	O	O	LR
Hexane	O	O	O	O	O	O	O
Hydrochloric Acid, 1N (HCl)	LR	LR	O	LR	O	O	X
Hydrochloric Acid, 6N (HCl)	LR	X	LR	X	LR	O	X
Hydrochloric Acid, 12N (HCl)	X	X	LR	X	X	O	X
Hydrogen Peroxide, 3%	X	O	NI	O	O	O	X
Isopropyl Alcohol	X	O	O	LR	O	O	O
Methanol	X	O	O	LR	O	O	O
Nitric Acid, 6N (HNO <sub>3</sub> )	X	O	O	X	O	O	X
Nitric Acid, 12N (HNO <sub>3</sub> )	X	X	NI	X	X	LR	X
Sodium Carbonate (aqueous)	O	NI	NI	LR	O	O	NI
Sodium Hydroxide, 3N (NaOH)	X	X	O	O	O	O	X
Sulfuric Acid, 6N (H <sub>2</sub> SO <sub>4</sub> )	LR	X	LR	X	LR	O	LR
Sulfuric Acid, 32N (H <sub>2</sub> SO <sub>4</sub> )	X	X	X	X	LR	LR	X
Tetrahydrofuran (THF)	X	X	NI	O	X	O	O
Toluene	O	O	O	O	O	O	O
O: Recommended LR: Limited recommendation X: Not recommended NI: No info							



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