










Lab Filtration

MEMBRANE SOLUTIONS, LLC

# Catalog

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# 2009 Catalog



## Syringe Filter

MS® Syringe Filters are simply quality filters, well packaged, and offered at a fair and competitive price. The Classic range is available in all of the major membranes including Nylon, CA, PP, Glass Fiber, PTFE, PES, MCE and PVDF which are supplied in 13mm, 25mm and 33mm formats in virgin polypropylene housings.





Cat. No.	Filter Medium	Pore Size( $\mu$ m)	Diameter (mm)	Gamma Sterile	Qty/ pack
Sterile Syringe Filter With Prefilter					
SFPES013022SG	PES / GF Prefilter	0.22	13	Yes	100
SFPES013045SG	PES / GF Prefilter	0.45	13	Yes	100
SFPES025022SG	PES / GF Prefilter	0.22	25	Yes	100
SFPES025045SG	PES / GF Prefilter	0.45	25	Yes	100
SFPVDF013022SG	PVDF/ GF Prefilter	0.22	13	Yes	100
SFPVDF013045SG	PVDF/ GF Prefilter	0.45	13	Yes	100
SFPVDF025022SG	PVDF/ GF Prefilter	0.22	25	Yes	100
SFPVDF025045SG	PVDF/ GF Prefilter	0.45	25	Yes	100
SFNY013022SG	Nylon/ GF Prefilter	0.22	13	Yes	100
SFNY013045SG	Nylon/ GF Prefilter	0.45	13	Yes	100
SFNY025022SG	Nylon/ GF Prefilter	0.22	25	Yes	100
SFNY025045SG	Nylon/ GF Prefilter	0.45	25	Yes	100

## MS® Nylon Syringe Filter (Polyamide)

- Hydrophilic property
- No need to moist beforehand
- Uniform aperture
- Strong tenacity and adsorbability
- Compatible with aqueous and alcoholic solutions and solvents
- Suitable for HPLC



Cat. No.	Filter Medium	Pore Size( $\mu$ m)	Diameter (mm)	Gamma Sterile	Qty/ pack
SFNY013022N	Nylon	0.22	13	No	100
SFNY013045N	Nylon	0.45	13	No	100
SFNY025022N	Nylon	0.22	25	No	100
SFNY025045N	Nylon	0.45	25	No	100
SFNY033022N	Nylon	0.22	33	No	100
SFNY033045N	Nylon	0.45	33	No	100

**Note:** Membrane Solutions offer Customized Pore Sizes: 0.1 $\mu$ m, 0.8 $\mu$ m, 1.0 $\mu$ m, 3.0 $\mu$ m, 5.0 $\mu$ m

## MS® MCE Syringe Filter (Mixed Cellulose Ester)

- Uniform aperture
- No fiber migration
- Naturally hydrophilic



Cat. No.	Filter Medium	Pore Size( $\mu$ m)	Diameter (mm)	Gamma Sterile	Qty/ pack
SFMCE013022N	MCE	0.22	13	No	100
SFMCE013045N	MCE	0.45	13	No	100
SFMCE025022N	MCE	0.22	25	No	100
SFMCE025045N	MCE	0.45	25	No	100
SFMCE033022N	MCE	0.22	33	No	100
SFMCE033045N	MCE	0.45	33	No	100

**Note:** Membrane Solutions offer Customized Pore Sizes: 0.8 $\mu$ m, 1.0 $\mu$ m, 3.0 $\mu$ m, 5.0 $\mu$ m



## MS® Sterile Syringe Filters

- MS® Sterile Syringe Filters are available with Polyethersulphone (PES), Polyesteramide(Nylon), Mixed Cellulose Ester(MCE), Polyfluortetraethylene(PTFE), Polyvinylidene fluoride(PVDF). Each filter is individually packed and sterilized by Gama Radiation. Every Syringe Filter is printed with expiry date for easy QC tracking.



Cat. No.	Filter Medium	Pore Size (µm)	Diameter (mm)	Gamma Sterile	Qty/ pack
Sterile Nylon Syringe Filter					
SFNY013022S	Nylon	0.22	13	Yes	100
SFNY013045S	Nylon	0.45	13	Yes	100
SFNY025022S	Nylon	0.22	25	Yes	100
SFNY025045S	Nylon	0.45	25	Yes	100
SFNY033022S	Nylon	0.22	33	Yes	100
SFNY033045S	Nylon	0.45	33	Yes	100
Sterile MCE Syringe Filter					
SFMCE013022S	MCE	0.22	13	Yes	100
SFMCE013045S	MCE	0.45	13	Yes	100
SFMCE025022S	MCE	0.22	25	Yes	100
SFMCE025045S	MCE	0.45	25	Yes	100
SFMCE033022S	MCE	0.22	33	Yes	100
SFMCE033045S	MCE	0.45	33	Yes	100
Sterile CA Syringe Filter					
SFCA013022S	CA	0.22	13	Yes	100
SFCA013045S	CA	0.45	13	Yes	100
SFCA025022S	CA	0.22	25	Yes	100
SFCA025045S	CA	0.45	25	Yes	100
SFCA033022S	CA	0.22	33	Yes	100
SFCA033045S	CA	0.45	33	Yes	100
Sterile PES Syringe Filter					
SFPES013022S	PES	0.22	13	Yes	100
SFPES013045S	PES	0.45	13	Yes	100
SFPES025022S	PES	0.22	25	Yes	100
SFPES025045S	PES	0.45	25	Yes	100
SFPES033022S	PES	0.22	33	Yes	100
SFPES033045S	PES	0.45	33	Yes	100
Sterile PVDF Syringe Filter					
SFPVDF013022S	PVDF	0.22	13	Yes	100
SFPVDF013045S	PVDF	0.45	13	Yes	100
SFPVDF025022S	PVDF	0.22	25	Yes	100
SFPVDF025045S	PVDF	0.45	25	Yes	100
SFPVDF033022S	PVDF	0.22	33	Yes	100
SFPVDF033045S	PVDF	0.45	33	Yes	100



# Lab Filtration

## MS® PP Syringe Filter (Polypropylene)

- Naturally hydrophilic membrane
- Wide range of chemical compatibility to organic solvents
- Highly solvent resistant



Cat. No.	Filter Medium	Pore Size(μm)	Diameter (mm)	Gamma Sterile	Qty/ pack
SFPP013022N	PP	0.22	13	No	100
SFPP013045N	PP	0.45	13	No	100
SFPP025022N	PP	0.22	25	No	100
SFPP025045N	PP	0.45	25	No	100

## MS® PTFE Syringe Filter (Polyfluortetraethylene)

- Broad chemical compatibility
- Strong chemical stability and inertia
- Strong hydrophobicity



### Note:

Membrane Solutions offer Customized Pore Sizes: 0.1μm, 1.0μm, 3.0μm, 5.0μm

Cat. No.	Filter Medium	Pore Size(μm)	Diameter (mm)	Gamma Sterile	Qty/ pack
Hydrophobic PTFE Syringe Filter					
SFPTFE013022NB	PTFE	0.22	13	No	100
SFPTFE013045NB	PTFE	0.45	13	No	100
SFPTFE025022NB	PTFE	0.22	25	No	100
SFPTFE025045NB	PTFE	0.45	25	No	100
SFPTFE033022NB	PTFE	0.22	33	No	100
SFPTFE033045NB	PTFE	0.45	33	No	100
Hydrophilic PTFE Syringe Filter					
SFPTFE013022NL	PTFE	0.22	13	No	100
SFPTFE013045NL	PTFE	0.45	13	No	100
SFPTFE025022NL	PTFE	0.22	25	No	100
SFPTFE025045NL	PTFE	0.45	25	No	100
SFPTFE025045SL	PTFE	0.45	25	Yes	100

## MS® Glass Fiber Syringe Filter

- Hydrophilic Material Membrane
- Excellent compatibility with organic solvents and strong acids (apart from hydrofluoric acid) and bases.
- High dirt-handling capacity



Cat. No.	Filter Medium	Pore Size(μm)	Diameter (mm)	Gamma Sterile	Qty/ pack
SFGF013070N	Glass Fiber	0.7	13	No	100
SFGF013100N	Glass Fiber	1.0	13	No	100
SFGF025070N	Glass Fiber	0.7	25	No	100
SFGF025100N	Glass Fiber	1.0	25	No	100



# Lab Filtration

## MS® Syringe Filter with Prefilter

- Improve sample volume throughout with prefilter
- High particulate load
- Exceptionally low extractable level with no wetting agents utilized

## MS® PTFE Syringe Filter with PP Prefilter



Cat. No.	Filter Medium	Pore Size(μm)	Diameter (mm)	Gamma Sterile	Qty/ pack
SFPTFE013022NP	PTFE/PP Prefilter	0.22	13	No	100
SFPTFE013045NP	PTFE/PP Prefilter	0.45	13	No	100
SFPTFE025022NP	PTFE/PP Prefilter	0.22	25	No	100
SFPTFE025045NP	PTFE/PP Prefilter	0.45	25	No	100

## MS® PES Syringe Filter with PP Prefilter



Cat. No.	Filter Medium	Pore Size(μm)	Diameter (mm)	Gamma Sterile	Qty/ pack
SFPES013022NP	PES/ PP Prefilter	0.22	13	No	100
SFPES013045NP	PES/ PP Prefilter	0.45	13	No	100
SFPES025022NP	PES/ PP Prefilter	0.22	25	No	100
SFPES025045NP	PES/ PP Prefilter	0.45	25	No	100

## MS® PVDF Syringe Filter with PP Prefilter

Cat. No.	Filter Medium	Pore Size(μm)	Diameter (mm)	Gamma Sterile	Qty/ pack
SFPVDF013022NP	PVDF/PP Prefilter	0.22	13	No	100
SFPVDF013045NP	PVDF/ PP Prefilter	0.45	13	No	100
SFPVDF025022NP	PVDF PP Prefilter	0.22	25	No	100
SFPVDF025045NP	PVDF/ PP Prefilter	0.45	25	No	100

## MS® Nylon Syringe Filter with PP Prefilter



Cat. No.	Filter Medium	Pore Size(μm)	Diameter (mm)	Gamma Sterile	Qty/ pack
SFNY013022NP	Nylon/ PP Prefilter	0.22	13	No	100
SFNY013045NP	Nylon/ PP Prefilter	0.45	13	No	100
SFNY025022NP	Nylon/ PP Prefilter	0.22	25	No	100
SFNY025045NP	Nylon/ PP Prefilter	0.45	25	No	100



## MS® PTFE Syringe Filter with Glass Fiber Prefilter



Cat. No.	Filter Medium	Pore Size(μm)	Diameter (mm)	Gamma Sterile	Qty/ pack
SFPTFE013022NG	PTFE/ GF Prefilter	0.22	13	No	100
SFPTFE013045NG	PTFE/ GF Prefilter	0.45	13	No	100
SFPTFE025022NG	PTFE/ GF Prefilter	0.22	25	No	100
SFPTFE025045NG	PTFE/ GF Prefilter	0.45	25	No	100

## MS® PES Syringe Filter with Glass Fiber Prefilter

Cat. No.	Filter Medium	Pore Size(μm)	Diameter (mm)	Gamma Sterile	Qty/ pack
SFPES013022NG	PES/ GF Prefilter	0.22	13	No	100
SFPES013045NG	PES / GF Prefilter	0.45	13	No	100
SFPES025022NG	PES / GF Prefilter	0.22	25	No	100
SFPES025045NG	PES / GF Prefilter	0.45	25	No	100

## MS® PVDF Syringe Filter with Glass Fiber Prefilter



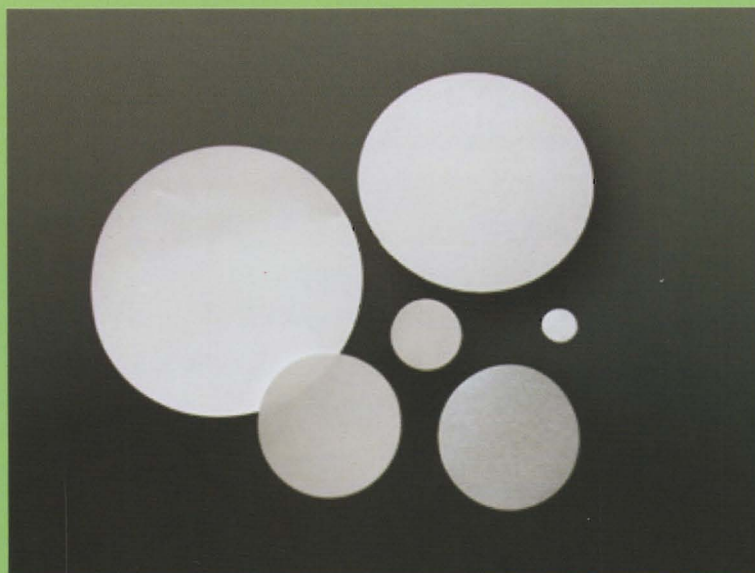
Cat. No.	Filter Medium	Pore Size(μm)	Diameter (mm)	Gamma Sterile	Qty/ pack
SFPVDF013022NG	PVDF/ GF Prefilter	0.22	13	No	100
SFPVDF013045NG	PVDF/ GF Prefilter	0.45	13	No	100
SFPVDF025022NG	PVDF/ GF Prefilter	0.22	25	No	100
SFPVDF025045NG	PVDF/ GF Prefilter	0.45	25	No	100

## MS® Nylon Syringe Filter with Glass Fiber Prefilter

Cat. No.	Filter Medium	Pore Size(μm)	Diameter (mm)	Gamma Sterile	Qty/ pack
SFNY013022NG	Nylon/ GF Prefilter	0.22	13	No	100
SFNY013045NG	Nylon/ GF Prefilter	0.45	13	No	100
SFNY025022NG	Nylon/ GF Prefilter	0.22	25	No	100
SFNY025045NG	Nylon/ GF Prefilter	0.45	25	No	100



# 2009 Catalog



## Membrane Filter

Membrane filters or "membranes" are microporous films with specific pore size ratings. Membranes retain particles and microorganisms that exceed their pore ratings by acting as a physical barrier and capturing such particles on the surface of the membrane.

Membrane Solutions offers membrane filters in diameters from 13mm to 293mm and materials including PES , MCE, Nylon, PVDF , PTFE and Glass Fiber.





Cat. No.	Filter Medium	Pore Size (µm)	Diameter (mm)	Qty/pack
MFMCE013045	MCE	0.45	13	200
MFMCE025045	MCE	0.45	25	100
MFMCE037045	MCE	0.45	37	50
MFMCE047045	MCE	0.45	47	50
MFMCE090045	MCE	0.45	90	25
MFMCE142045	MCE	0.45	142	25
MFMCE293045	MCE	0.45	293	25
MFMCE013080	MCE	0.8	13	200
MFMCE025080	MCE	0.8	25	100
MFMCE037080	MCE	0.8	37	50
MFMCE047080	MCE	0.8	47	50
MFMCE090080	MCE	0.8	90	25
MFMCE142080	MCE	0.8	142	25
MFMCE293080	MCE	0.8	293	25
MFMCE013100	MCE	1.0	13	200
MFMCE025100	MCE	1.0	25	100
MFMCE037100	MCE	1.0	37	50
MFMCE047100	MCE	1.0	47	50
MFMCE090100	MCE	1.0	90	25
MFMCE142100	MCE	1.0	142	25
MFMCE293100	MCE	1.0	293	25
MFMCE013300	MCE	3.0	13	200
MFMCE025300	MCE	3.0	25	100
MFMCE037300	MCE	3.0	37	50
MFMCE047300	MCE	3.0	47	50
MFMCE090300	MCE	3.0	90	25
MFMCE142300	MCE	3.0	142	25
MFMCE293300	MCE	3.0	293	25
MFMCE013500	MCE	5.0	13	200
MFMCE025500	MCE	5.0	25	100
MFMCE037500	MCE	5.0	37	50
MFMCE047500	MCE	5.0	47	50
MFMCE090500	MCE	5.0	90	25
MFMCE142500	MCE	5.0	142	25
MFMCE293500	MCE	5.0	293	25



Cat. No.	Filter Medium	Pore Size (µm)	Diameter (mm)	Qty/pack
MFNY037300	Nylon	3.0	37	100
MFNY047300	Nylon	3.0	47	50
MFNY090300	Nylon	3.0	90	25
MFNY142300	Nylon	3.0	142	25
MFNY293300	Nylon	3.0	293	25
MFNY013500	Nylon	5.0	13	200
MFNY025500	Nylon	5.0	25	100
MFNY037500	Nylon	5.0	37	100
MFNY047500	Nylon	5.0	47	50
MFNY090500	Nylon	5.0	90	25
MFNY142500	Nylon	5.0	142	25
MFNY293500	Nylon	5.0	293	25

### MS® PTFE Membrane Filter

- PTFE membrane with supporting layer polyester or polypropylene
- Suitable for applications involving aggressive organic solvents, strong acids, and alkalis
- Hydrophobic nature of the membrane has applications for air and gas sterilization
- High temperature resistance



Cat. No.	Filter Medium	Pore Size (µm)	Diameter (mm)	Qty/pack
MFPTFE013010B	Hydrophobic PTFE	0.1	13	200
MFPTFE025010B	Hydrophobic PTFE	0.1	25	100
MFPTFE037010B	Hydrophobic PTFE	0.1	37	100
MFPTFE047010B	Hydrophobic PTFE	0.1	47	50
MFPTFE090010B	Hydrophobic PTFE	0.1	90	25
MFPTFE142010B	Hydrophobic PTFE	0.1	142	25
MFPTFE293010B	Hydrophobic PTFE	0.1	293	25
MFPTFE013022B	Hydrophobic PTFE	0.22	13	200
MFPTFE025022B	Hydrophobic PTFE	0.22	25	100
MFPTFE037022B	Hydrophobic PTFE	0.22	37	100
MFPTFE047022B	Hydrophobic PTFE	0.22	47	50
MFPTFE090022B	Hydrophobic PTFE	0.22	90	25
MFPTFE142022B	Hydrophobic PTFE	0.22	142	25
MFPTFE293022B	Hydrophobic PTFE	0.22	293	25
MFPTFE013045B	Hydrophobic PTFE	0.45	13	200
MFPTFE025045B	Hydrophobic PTFE	0.45	25	100
MFPTFE037045B	Hydrophobic PTFE	0.45	37	100
MFPTFE047045B	Hydrophobic PTFE	0.45	47	50
MFPTFE090045B	Hydrophobic PTFE	0.45	90	25
MFPTFE142045B	Hydrophobic PTFE	0.45	142	25
MFPTFE293045B	Hydrophobic PTFE	0.45	293	25
MFPTFE013100B	Hydrophobic PTFE	1.0	13	200
MFPTFE025100B	Hydrophobic PTFE	1.0	25	100





Cat. No.	Filter Medium	Pore Size (µm)	Diameter (mm)	Qty/pack
MFPTFE037100B	Hydrophobic PTFE	1.0	37	100
MFPTFE047100B	Hydrophobic PTFE	1.0	47	50
MFPTFE090100B	Hydrophobic PTFE	1.0	90	25
MFPTFE142100B	Hydrophobic PTFE	1.0	142	25
MFPTFE293100B	Hydrophobic PTFE	1.0	293	25
MFPTFE013300B	Hydrophobic PTFE	3.0	13	200
MFPTFE025300B	Hydrophobic PTFE	3.0	25	100
MFPTFE037300B	Hydrophobic PTFE	3.0	37	100
MFPTFE047300B	Hydrophobic PTFE	3.0	47	50
MFPTFE090300B	Hydrophobic PTFE	3.0	90	25
MFPTFE142300B	Hydrophobic PTFE	3.0	142	25
MFPTFE293300B	Hydrophobic PTFE	3.0	293	25
MFPTFE013500B	Hydrophobic PTFE	5.0	13	200
MFPTFE025500B	Hydrophobic PTFE	5.0	25	100
MFPTFE037500B	Hydrophobic PTFE	5.0	37	100
MFPTFE047500B	Hydrophobic PTFE	5.0	47	50
MFPTFE090500B	Hydrophobic PTFE	5.0	90	25
MFPTFE142500B	Hydrophobic PTFE	5.0	142	25
MFPTFE293500B	Hydrophobic PTFE	5.0	293	25

## MS® PES Membrane Filter

- Inherently hydrophilic
- Low protein binding
- Good chemical compatibility
- Superior thermo stability



Cat. No.	Filter Medium	Pore Size (µm)	Diameter (mm)	Qty/pack
MFPE013005	PES	0.05	13	200
MFPE025005	PES	0.05	25	100
MFPE037005	PES	0.05	37	100
MFPE047005	PES	0.05	47	50
MFPE090005	PES	0.05	90	25
MFPE142005	PES	0.05	142	25
MFPE013010	PES	0.1	13	200
MFPE025010	PES	0.1	25	100
MFPE037010	PES	0.1	37	100
MFPE047010	PES	0.1	47	50
MFPE090010	PES	0.1	90	25
MFPE142010	PES	0.1	142	25





Cat. No.	Filter Medium	Pore Size (µm)	Diameter (mm)	Qty/pack
MFPE013022	PES	0.22	13	200
MFPE025022	PES	0.22	25	100
MFPE037022	PES	0.22	37	100
MFPE047022	PES	0.22	47	50
MFPE090022	PES	0.22	90	25
MFPE142022	PES	0.22	142	25
MFPE013045	PES	0.45	13	200
MFPE025045	PES	0.45	25	100
MFPE037045	PES	0.45	37	100
MFPE047045	PES	0.45	47	50
MFPE090045	PES	0.45	90	25
MFPE142045	PES	0.45	142	25
MFPE013065	PES	0.45	13	200
MFPE025065	PES	0.65	25	100
MFPE037065	PES	0.65	37	100
MFPE047065	PES	0.65	47	50
MFPE090065	PES	0.65	90	25
MFPE142065	PES	0.65	142	25
MFPE013100	PES	0.65	13	200
MFPE025100	PES	1.0	25	100
MFPE037100	PES	1.0	37	100
MFPE047100	PES	1.0	47	50
MFPE090100	PES	1.0	90	25
MFPE142100	PES	1.0	142	25

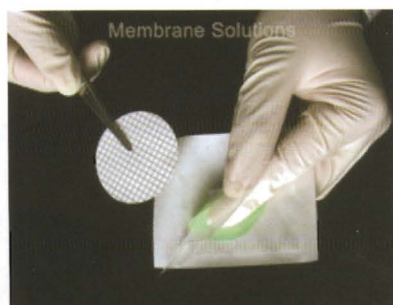
### MS® MCE Membrane Filter

- A mixture of nitrocellulose and cellulose acetate
- Naturally hydrophilic
- Available in both supported or non-supported
- High porosity provides superior flow rates
- Ideal for use in lateral flow assays and dot/slot blotting



Cat. No.	Filter Medium	Pore Size (µm)	Diameter (mm)	Qty/pack
MFMC013022	MCE	0.22	13	200
MFMC025022	MCE	0.22	25	100
MFMC037022	MCE	0.22	37	50
MFMC047022	MCE	0.22	47	50
MFMC090022	MCE	0.22	90	25
MFMC142022	MCE	0.22	142	25
MFMC293022	MCE	0.22	293	25





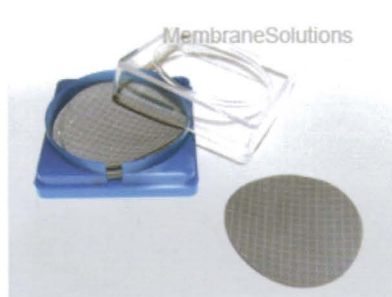
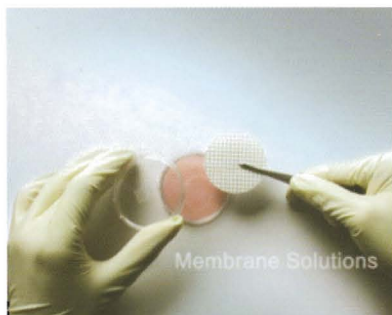
Cat. No.	Filter Medium	Pore Size (µm)	Diameter (mm)	Qty/pack
MFMCCE013045	MCE	0.45	13	200
MFMCCE025045	MCE	0.45	25	100
MFMCCE037045	MCE	0.45	37	50
MFMCCE047045	MCE	0.45	47	50
MFMCCE090045	MCE	0.45	90	25
MFMCCE142045	MCE	0.45	142	25
MFMCCE293045	MCE	0.45	293	25
MFMCCE013080	MCE	0.8	13	200
MFMCCE025080	MCE	0.8	25	100
MFMCCE037080	MCE	0.8	37	50
MFMCCE047080	MCE	0.8	47	50
MFMCCE090080	MCE	0.8	90	25
MFMCCE142080	MCE	0.8	142	25
MFMCCE293080	MCE	0.8	293	25
MFMCCE013100	MCE	1.0	13	200
MFMCCE025100	MCE	1.0	25	100
MFMCCE037100	MCE	1.0	37	50
MFMCCE047100	MCE	1.0	47	50
MFMCCE090100	MCE	1.0	90	25
MFMCCE142100	MCE	1.0	142	25
MFMCCE293100	MCE	1.0	293	25
MFMCCE013300	MCE	3.0	13	200
MFMCCE025300	MCE	3.0	25	100
MFMCCE037300	MCE	3.0	37	50
MFMCCE047300	MCE	3.0	47	50
MFMCCE090300	MCE	3.0	90	25
MFMCCE142300	MCE	3.0	142	25
MFMCCE293300	MCE	3.0	293	25
MFMCCE013500	MCE	5.0	13	200
MFMCCE025500	MCE	5.0	25	100
MFMCCE037500	MCE	5.0	37	50
MFMCCE047500	MCE	5.0	47	50
MFMCCE090500	MCE	5.0	90	25
MFMCCE142500	MCE	5.0	142	25
MFMCCE293500	MCE	5.0	293	25



# Lab Filtration

## MS® Microbiology Test Membrane Filter(MCE)

- Available in white and black
- Gridded or non-gridded
- Individual pack, pre-sterilized
- Standard for microbiological analysis of water, waste water, and beverages.



Cat. No.	Filter Medium	Pore Size (µm)	Diameter (mm)	Qty/pack
<b>MCE Membrane Filter, White, Gridded, Sterile, Individually packed</b>				
MFMC025022GWS	MCE	0.22	25	100
MFMC037022GWS	MCE	0.22	37	100
MFMC047022GWS	MCE	0.22	47	100
MFMC025045GWS	MCE	0.45	25	100
MFMC037045GWS	MCE	0.45	37	100
MFMC047045GWS	MCE	0.45	47	100
MFMC025080GWS	MCE	0.8	25	100
MFMC037080GWS	MCE	0.8	37	100
MFMC047080GWS	MCE	0.8	47	100
MFMC025100GWS	MCE	1.0	25	100
MFMC037100GWS	MCE	1.0	37	100
MFMC047100GWS	MCE	1.0	47	100
MFMC025300GWS	MCE	3.0	25	100
MFMC037300GWS	MCE	3.0	37	100
MFMC047300GWS	MCE	3.0	47	100
<b>MCE Membrane Filter, Black, Gridded, Sterile, Individually packed</b>				
MFMC025045GBS	MCE	0.45	25	100
MFMC037045GBS	MCE	0.45	37	100
MFMC047045GBS	MCE	0.45	47	100
MFMC025080GBS	MCE	0.8	25	100
MFMC037080GBS	MCE	0.8	37	100
MFMC047080GBS	MCE	0.8	47	100



# Lab Filtration

## MS® Absorbent Pad

- Pure cellulose pad will not inhibit any bacterial grow.
- Available non-sterile or sterilized by gamma irradiation.
- Individually packed for pre-sterilized
- Customized diameter is available



Cat. No.	Description	Diameter (mm)	Qty/ pack
MFAP047N	Non-sterile Absorbent Pad	47	100
MFAP047S	Sterile Absorbent Pad, individually packed	47	100
MFAP050N	Non-sterile Absorbent Pad	50	100
MFAP050S	Sterile Absorbent Pad, individually packed	50	100
MFAP015050D	Petri-Pad dish, 55×15mm, with absorbent pad, sterile	50	200

## MS® PVDF Membrane Filter

- Wide chemical compatibility
- Excellent mechanical properties
- High temperature capabilities
- Low extractable levels



Cat. No.	Filter Medium	Pore Size (µm)	Diameter (mm)	Qty/pack
MFPVDF013022	PVDF	0.22	13	200
MFPVDF025022	PVDF	0.22	25	100
MFPVDF037022	PVDF	0.22	37	100
MFPVDF047022	PVDF	0.22	47	50
MFPVDF090022	PVDF	0.22	90	25
MFPVDF142022	PVDF	0.22	142	25
MFPVDF293022	PVDF	0.22	293	25
MFPVDF013045	PVDF	0.45	13	200
MFPVDF025045	PVDF	0.45	25	100
MFPVDF037045	PVDF	0.45	37	100
MFPVDF047045	PVDF	0.45	47	50
MFPVDF090045	PVDF	0.45	90	25
MFPVDF142045	PVDF	0.45	142	25
MFPVDF293045	PVDF	0.45	293	25



# Lab Filtration

## MS® CA Membrane Filter

- Hydrophilic
- Very low protein binding capacity
- High physical strength
- Strength and dimension stability

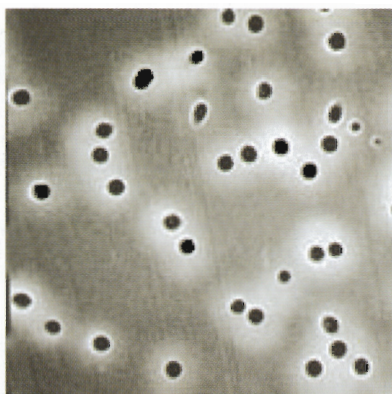


Cat. No.	Filter Medium	Pore Size (µm)	Diameter (mm)	Qty/pack
MFCA013022	Cellulose Acetate	0.22	13	200
MFCA025022	Cellulose Acetate	0.22	25	100
MFCA037022	Cellulose Acetate	0.22	37	100
MFCA047022	Cellulose Acetate	0.22	47	50
MFCA090022	Cellulose Acetate	0.22	90	25
MFCA142022	Cellulose Acetate	0.22	142	25
MFCA293022	Cellulose Acetate	0.22	293	25
MFCA013045	Cellulose Acetate	0.45	13	200
MFCA025045	Cellulose Acetate	0.45	25	100
MFCA037045	Cellulose Acetate	0.45	37	100
MFCA047045	Cellulose Acetate	0.45	47	50
MFCA090045	Cellulose Acetate	0.45	90	25
MFCA142045	Cellulose Acetate	0.45	142	25
MFCA293045	Cellulose Acetate	0.45	293	25
MFCA013080	Cellulose Acetate	0.8	13	200
MFCA025080	Cellulose Acetate	0.8	25	100
MFCA037080	Cellulose Acetate	0.8	37	100
MFCA047080	Cellulose Acetate	0.8	47	50
MFCA090080	Cellulose Acetate	0.8	90	25
MFCA142080	Cellulose Acetate	0.8	142	25
MFCA293080	Cellulose Acetate	0.8	293	25
MFCA013300	Cellulose Acetate	3.0	13	200
MFCA025300	Cellulose Acetate	3.0	25	100
MFCA037300	Cellulose Acetate	3.0	37	100
MFCA047300	Cellulose Acetate	3.0	47	50
MFCA090300	Cellulose Acetate	3.0	90	25
MFCA142300	Cellulose Acetate	3.0	142	25
MFCA293300	Cellulose Acetate	3.0	293	25



## MS® Polycarbonate (PC) Membrane Filter

- Precise pore sizes and pore distribution for absolute filtration and separation
- Excellent chemical resistance and thermal stability
- Smooth glass-like surface with cylindrical pores for maximum particulate capture
- Optically transparent in most pore sizes



Cat. No.	Filter Medium	Pore Size (µm)	Diameter (mm)	Qty/pack
MFPC013005	PC	0.05	13	100
MFPC025005	PC	0.05	25	100
MFPC037005	PC	0.05	37	100
MFPC047005	PC	0.05	47	100
MFPC090005	PC	0.05	90	30
MFPC142005	PC	0.05	142	25
MFPC293005	PC	0.05	293	25
MFPC013010	PC	0.1	13	100
MFPC025010	PC	0.1	25	100
MFPC037010	PC	0.1	37	100
MFPC047010	PC	0.1	47	100
MFPC090010	PC	0.1	90	30
MFPC142010	PC	0.1	142	25
MFPC293010	PC	0.1	293	25
MFPC013020	PC	0.2	13	100
MFPC025020	PC	0.2	25	100
MFPC037020	PC	0.2	37	100
MFPC047020	PC	0.2	47	100
MFPC090020	PC	0.2	90	30
MFPC142020	PC	0.2	142	25
MFPC293020	PC	0.2	293	25
MFPC013040	PC	0.4	13	100
MFPC025040	PC	0.4	25	100
MFPC037040	PC	0.4	37	100
MFPC047040	PC	0.4	47	100
MFPC090040	PC	0.4	90	30
MFPC142040	PC	0.4	142	25
MFPC293040	PC	0.4	293	25
MFPC013080	PC	0.8	13	100
MFPC025080	PC	0.8	25	100
MFPC037080	PC	0.8	37	100
MFPC047080	PC	0.8	47	100



# Lab Filtration

**Note:**

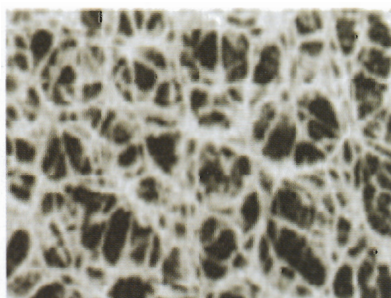
- Other sizes and pore sizes available upon request

Cat. No.	Filter Medium	Pore Size (µm)	Diameter (mm)	Qty/pack
MFPC090080	PC	0.8	90	30
MFPC142080	PC	0.8	142	25
MFPC293080	PC	0.8	293	25
MFPC013100	PC	1.0	13	200
MFPC025100	PC	1.0	25	100
MFPC037100	PC	1.0	37	100
MFPC047100	PC	1.0	47	100
MFPC090100	PC	1.0	90	30
MFPC142100	PC	1.0	142	25
MFPC293100	PC	1.0	293	25
MFPC013300	PC	3.0	13	100
MFPC025300	PC	3.0	25	100
MFPC037300	PC	3.0	37	100
MFPC047300	PC	3.0	47	100
MFPC090300	PC	3.0	90	30
MFPC142300	PC	3.0	142	25
MFPC293300	PC	3.0	293	25
MFPC013500	PC	5.0	13	100
MFPC025500	PC	5.0	25	100
MFPC037500	PC	5.0	37	100
MFPC047500	PC	5.0	47	100
MFPC090500	PC	5.0	90	30
MFPC142500	PC	5.0	142	25
MFPC293500	PC	5.0	293	25
MFPC013800	PC	8.0	13	100
MFPC025800	PC	8.0	25	100
MFPC037800	PC	8.0	37	100
MFPC047800	PC	8.0	47	100
MFPC090800	PC	8.0	90	30
MFPC142800	PC	8.0	142	25
MFPC293800	PC	8.0	293	25



## MS® Regenerated Cellulose(RC) Membrane Filter

- Hydrophilic
- Easily wettable
- Resistant to almost all solvents and aqueous solutions in pH range 3-12
- Low non-specific of adsorption



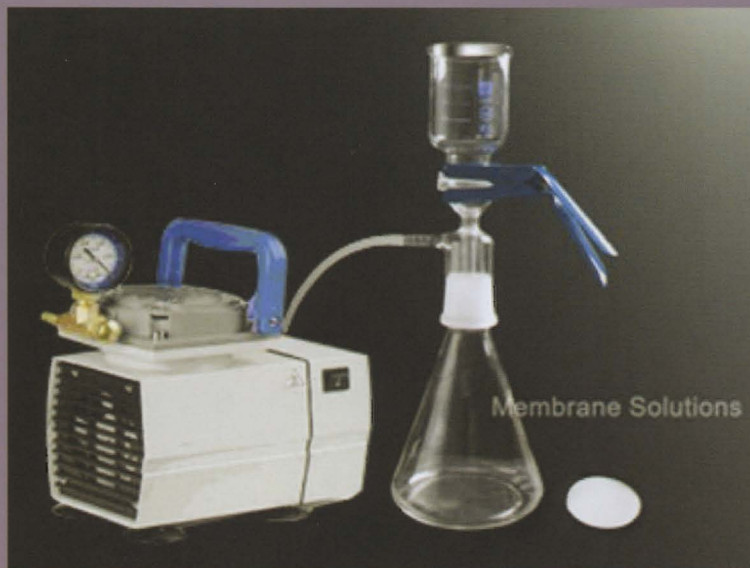
### Note:

- Other sizes available upon request

Cat. No.	Filter Medium	Pore Size (µm)	Diameter (mm)	Qty/pack
MFRC013022	RC	0.22	13	100
MFRC025022	RC	0.22	25	100
MFRC037022	RC	0.22	37	100
MFRC047022	RC	0.22	47	100
MFRC090022	RC	0.22	90	25
MFRC142022	RC	0.22	142	25
MFRC013045	RC	0.45	13	100
MFRC025045	RC	0.45	25	100
MFRC037045	RC	0.45	37	100
MFRC047045	RC	0.45	47	100
MFRC090045	RC	0.45	90	25
MFRC142045	RC	0.45	142	25



# 2009 Catalog



## Vacuum Filter Series

Vacuum Filter is used primarily in microbiological and analytical procedures that involve collecting a particulate (bacteria, precipitate, etc.) from a liquid suspension. Liquid poured into a funnel passes through a filter, which retains the particulate, and filtrate can be collected into a filter flask, directly or via a vacuum manifold. Applying vacuum reduces process time compared to gravity flow.



# Lab Filtration

## MS® Glass Solvent Filter

- 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.
- Compatible with aqueous and alcoholic solutions and solvents; suitable for HPLC.



### Technical Specifications

#### Material

Funnel, base unit and flask	Borosilicate glass
Support	Borosilicate glass frit, stainless steel, or PTFE

#### Connection

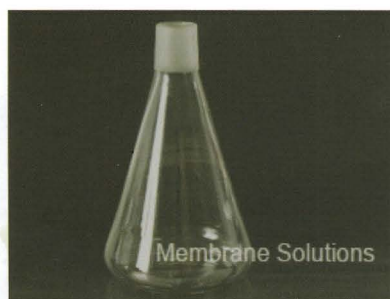
Ground glass joint	14/20 female, 40/35 female
Side arm	6 mm (3/8 inch), 6 mm (3/8 inch)

#### Capacity

Funnel	250ml, 300ml, 500ml
Receiver flask	1000ml, 2000ml
Suitable Membrane	φ47 or φ50, φ60

Cat. No.	Description	Qty/pack
VFG025005	1) 250ml Glass Funnel with cover	1set
	2) 500ml Glass Solvent Collection	
	3) Stainless Steel Clamp	
	4) Solid Glass Frit	
	5) Packaging: 30cmX30cmX25cm	
VFG030005	1) 300ml Glass Funnel with cover	1set
	2) 500ml Glass Solvent Collection	
	3) Stainless Steel Clamp	
	4) Solid Glass Frit	
	5) Packaging: 30cmX30cmX25cm	
VFG025010	1) 250ml Glass Funnel with cover	1set
	2) 1000ml Glass Solvent Collection	
	3) Stainless Steel Clamp	
	4) Solid Glass Frit	
	5) Packaging: 30cmX30cmX25cm	





Cat. No.	Description	Qty/pack
VFG030010	1) 300ml Glass Funnel with cover	1set
	2) 1000ml Glass Solvent Collection	
	3) Stainless Steel Clamp	
	4) Solid Glass Frit	
	5) Packaging: 30cmX30cmX25cm	
VFG025020	1) 250ml Glass Funnel with cover	1set
	2) 2000ml Glass Solvent Collection	
	3) Stainless Steel Clamp	
	4) Solid Glass Frit	
	5) Packaging: 30cmX30cmX25cm	
VFG030020	1) 300ml Glass Funnel with cover	1set
	2) 2000ml Glass Solvent Collection	
	3) Stainless Steel Clamp	
	4) Solid Glass Frit	
	5) Packaging: 30cmX30cmX25cm	
VFG147SS	Pyrex glass support screen	1set
VFG047SS	Pyrex glass support screen	1set
VFG010RB	Solvent Collection Bottle, 1000ml	1set
VFG020RB	Solvent Collection Bottle, 2000ml	1set

## MS® Disposable Plastic Vacuum Filters

- Funnel is manufactured from optically clear polystyrene and graduated.
- Receiver bottle and filter adapter are manufactured from 100% virgin polypropylene.
- Hose connector is designed to accept multiple hose diameter and features an easy gripping collar to simplify tightening/loosening and adjustment.
- Individually wrapped sterile, certified RNase-free, DNase-free, non-pyrogenic, and DNA free.



Funnel Capacity	Filter Diameter	Process Volume	Hold-up Volume after purge	Maximum Operating Temperature	Fitting Outlet (Thread)	Full Unit Overall Height	Housing Material
150mL	50mm	150mL	3mL	45	45mm	156mm	ABS
250mL	50mm	250mL	3mL	45	45mm	156mm	ABS
500mL	50mm	500mL	3mL	45	45mm	156mm	ABS





Cat. No.	Funnel Capacity(ml)	Filter Pore Size( $\mu$ m)	Filter Medium	Qty/ pack
Plastic Vacuum Filter				
VFPPVDF110150	150	0.1	PVDF	12
VFPPVDF122150	150	0.22	PVDF	12
VFPPES122150	150	0.22	PES	12
VFPMCE122150	150	0.22	MCE	12
VFPPVDF145150	150	0.45	PVDF	12
VFPPES145150	150	0.45	PES	12
VFPMCE145150	150	0.45	MCE	12
VFPNY145150	150	0.45	Nylon	12
VFPPVDF110250	250	0.1	PVDF	12
VFPPVDF122250	250	0.22	PVDF	12
VFPPES122250	250	0.22	PES	12
VFPMCE122250	250	0.22	MCE	12
VFPPVDF145250	250	0.45	PVDF	12
VFPPES145250	250	0.45	PES	12
VFPMCE145250	250	0.45	MCE	12
VFPNY145250	250	0.45	Nylon	12
VFPPVDF110250	500	0.1	PVDF	12
VFPPVDF122500	500	0.22	PVDF	12
VFPPES122500	500	0.22	PES	12
VFPMCE122500	500	0.22	MCE	12
VFPPVDF145500	500	0.45	PVDF	12
VFPPES145500	500	0.45	PES	12
VFPMCE145500	500	0.45	MCE	12
VFPNY145500	500	0.45	Nylon	12
Filter Funnel Cups				
VFPPVDF110150F	150	0.1	PVDF	24
VFPPVDF122150F	150	0.22	PVDF	24
VFPPES122150F	150	0.22	PES	24
VFPMCE122150F	150	0.22	MCE	24
VFPPVDF145150F	150	0.45	PVDF	24
VFPPES145150F	150	0.45	PES	24
VFPMCE145150F	150	0.45	MCE	24
VFPNY145150F	150	0.45	Nylon	24
VFPPVDF110250F	250	0.1	PVDF	24
VFPPVDF122250F	250	0.22	PVDF	24
VFPPES122250F	250	0.22	PES	24
VFPMCE122250F	250	0.22	MCE	24
VFPPVDF145250F	250	0.45	PVDF	24

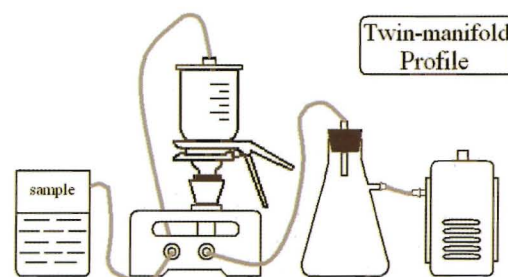
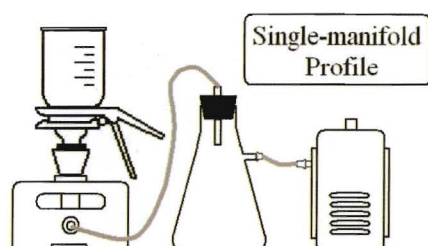
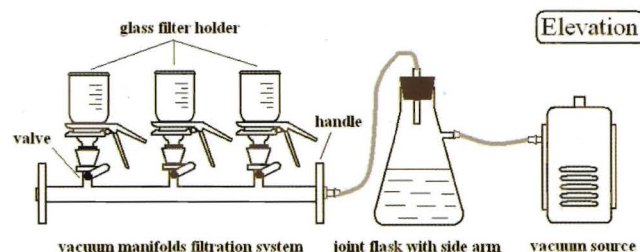
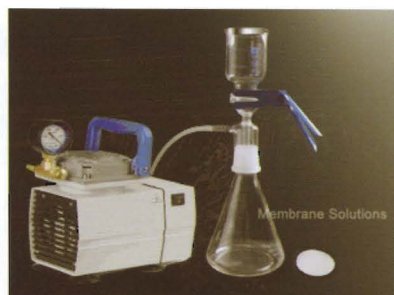


Cat. No.	Funnel Capacity(ml)	Filter Pore Size( $\mu$ m)	Filter Medium	Qty/ pack
Filter Funnel Cups				
VFPNY145250F	250	0.45	Nylon	24
VFPPVDF110250F	500	0.1	PVDF	24
VFPPVDF122500F	500	0.22	PVDF	24
VFPPEs122500F	500	0.22	PES	24
VFPMC122500F	500	0.22	MCE	24
VFPPVDF145500F	500	0.45	PVDF	24
VFPPEs145500F	500	0.45	PES	24
VFPMCE145500F	500	0.45	MCE	24
VFPNY145500F	500	0.45	Nylon	24

Cat. No.	Capacity(ml)	Material	Qty /Pack
Reservoir Bottles			
VFP150B	250	PP	12
VFP250B	500	PP	12
VFP500B	500	PP	12

## MS® Multiple Vacuum Filtration Systems

- Each station use separate control valve for independent operation.
- 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.





# 2009 Catalog



# Labware

Membrane Solutions, LLC provides quality lab products and services for the life science community.

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**ECH**nology Pty Ltd

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**11/12**



## Vacufil™ Disposable Vacuum Filtration Units

Vacufil™ Disposable Vacuum Filtration Units are used for filtering and storing cell culture and tissue culture media, biological fluids and other aqueous solutions.



**Funnel: 250, 500ml**

**GF Prefilter (Optional)**

**Membrane: PES, MCE, CA, Nylon, PVDF**

**Pore Size: 0.22, 0.45µm**

**Membrane Diameter: 50, 90 mm**

### Vacufil™ Certified

- ✓ **Sterile;**
- ✓ **Non-pyrogen;**
- ✓ **Detergent-free;**
- ✓ **Individual packaged.**

**Receiver Bottle: 250, 500, 1000ml**

### Selection Guide

#### 1st Step: Select your membrane material

Color of collar	Membrane Material	Description
Green	PES	The fastest flow rate, the lowest protein binding and low extractable and are best for filtering cell culture media.
Dark blue	MCE	Filtration of aqueous solutions, effectively binds trace proteins.
Blue	CA	Fast flow rates and low protein binding are good for filtering cell culture media.
Purple	Nylon	Naturally hydrophilic, surfactant-free and offer the lowest extractable.
Yellow	Hydrophilic PVDF	Suitable for aqueous solutions and organic solvent filtration.

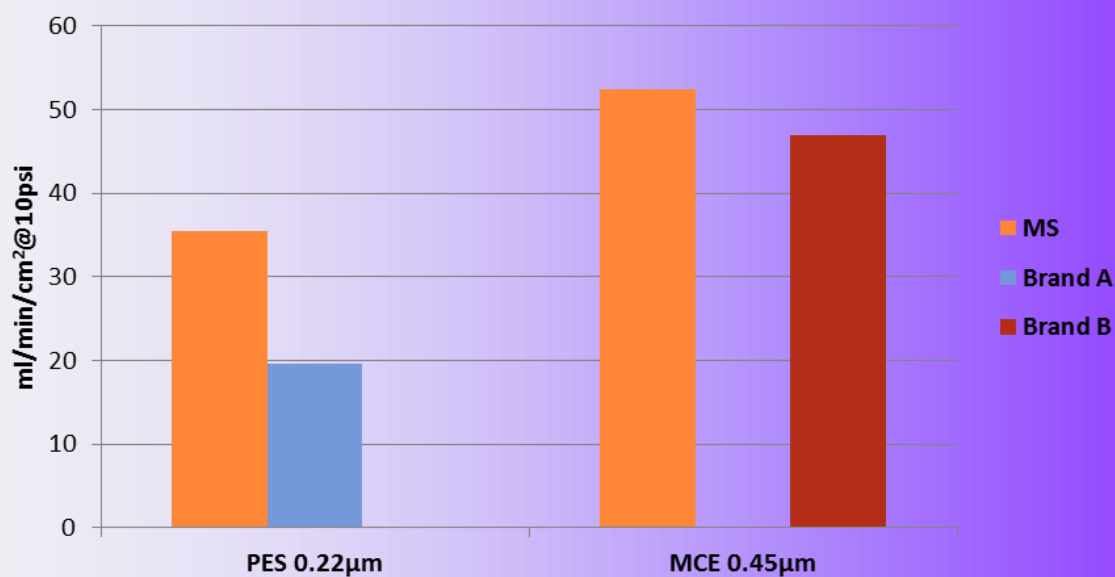
#### 2nd Step: Select your membrane pore size

Pore Size(µm)	Application
0.22	Routine laboratory sterilization of most media, buffers and biological fluids
0.45	Clarification and Prefiltration of solutions and solvents





## Vacuum Filter Flow Rate



## Order Information

Filter Unit Funnel/ Receiver (Diameter)		PES	MCE	CA	Nylon	PVDF
250/ 250 (50mm)	0.22	VFPPES122250	VFPMCE122250	VFPCA122250	VFPNY122250	VFPPVDF122250
	0.45	VFPPES145250	VFPMCE145250	VFPCA145250	VFPNY145250	VFPPVDF145250
250/ 500 (50mm)	0.22	VFPPES122500	VFPMCE122500	VFPCA122500	VFPNY122500	VFPPVDF122500
	0.45	VFPPES145500	VFPMCE145500	VFPCA145500	VFPNY145500	VFPPVDF145500
500/ 500 (90mm)	0.22	VFPPES222500	VFPMCE222500	VFPCA222500	VFPNY222500	VFPPVDF222500
	0.45	VFPPES245500	VFPMCE245500	VFPCA245500	VFPNY245500	VFPPVDF245500
500/ 1000 (90mm)	0.22	VFPPES2221000	VFPMCE2221000	VFPCA2221000	VFPNY2221000	VFPPVDF2221000
	0.45	VFPPES2451000	VFPMCE2451000	VFPCA2451000	VFPNY2451000	VFPPVDF2451000

Besides filter units, individual wrapped Funnel and Receiver Bottle are available.

## Related Products



Bioset Monitor



Petri Dish


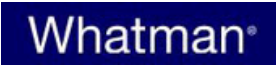








MCE Gridded Membrane



# Cross Reference Syringe Filter Units









Syringe Filters  
Alternative parts are based on a direct technical comparison  
Part number alternatives are based upon closest pack quantity.  
Inclusion of parts is no guarantee of identical performance.

		GD/X	Puradisc	EasyDisc	Millex	Acrodisc	Cameo	Cronus		Target
										
DESCRIPTION	Chromacol	Whatman	Whatman	Whatman	Millipore	PALL	GE Osmonics	LabHut	Kinesis	NSC
30mm Syringe Filter 0.45um Nylon	30-SF-45(N)	6870-2504	6750-2502	6710-2504	SLHN025NS		4438	1224112 FFNN2545-100	SFNY2545	F2500-1
30mm Syringe Filter 0.2um Polypropylene	30-SF-02(PP)	6785-2502					4564	1224172		F2500-10
30mm Syringe Filter 5.0um PTFE	30-SF-50(T)								SFPT2550	F2500-11
30mm Syringe Filter 1.2um Nylon	30-SF-12(N)								SFNY2512	F2500-12
30mm Syringe Filter 1.0um PTFE	30-SF-10(T)								SFPT2510	F2500-13
30mm Syringe Filter 0.45um PES for Ion Chromatography	30-SF-45(PES)	6878-2504	6780-2504	6716-2504	SLHP033NS	4584	1233550		SFPE25451	F2500-14
30mm Syringe Filter 0.45um Cellulose Acetate	30-SF-45(CA)	6880-2504					1214778 FFCA2545-100		SFCA2545	F2500-15
30mm Syringe Filter 0.2um Cellulose Acetate	30-SF-02(CA)	6880-2502					1213641		SFCA2520	F2500-16
30mm Syringe Filter 0.2um PES for Ion Chromatography	30-SF-02(PES)	6878-2502	6780-2502		SLGP033NS		1233549		SFPE2520	F2500-17
30mm Syringe Filter 0.7um Glass Micro Fiber	30-SF-07(GMF)	6890-2507							SFGF2507	F2500-18
30mm Syringe Filter 1.2um Glass Micro Fiber	30-SF-12(GMF)	6886-2512							SFGF2512	F2500-19
30mm Syringe Filter 0.2um Nylon	30-SF-02(N)	6870-2502	6750-2502		SLGN025NS	4436	1224104 FFNN2502-100		SFGF2531	F2500-20
30mm Syringe Filter 3.1um Glass Micro Fiber	30-SF-31(GMF)	6888-2527								F2500-3
30mm Syringe Filter 0.45um PTFE	30-SF-45(T)	6874-2504	6784-2504	6714-2504	SLFH025NS	4219	1224150 FFPT2545-100			F2500-4
30mm Syringe Filter 0.2um PTFE	30-SF-02(T)	6874-2502	6784-2502		SLFG025NS	4225	1224143 FFPT2502-100		SFPT2520	F2500-5
30mm Syringe Filter 0.45um PVDF	30-SF-45(PV)	6872-2504		6712-2504	SLHV033NS	4408		FFPV2545-100	SFPV2545	F2500-6
30mm Syringe Filter 5.0um Nylon	30-SF-50(N)								SFNY2550	F2500-7
30mm Syringe Filter 0.2um PVDF	30-SF-02(PV)	6872-2502			SLGV025NB	4406			SFPV2520	F2500-8
30mm Syringe Filter 0.45um Regenerated Cellulose	30-SF-45(RC)							FFRC2545-100		F2500-9
30mm Syringe Filter 0.2um Regenerated Cellulose	30-SF-02(RC)							FFRC2502-100	SFRC2520	F2502-1
30mm Syringe Filter 0.45um Polypropylene	30-SF-45(PP)			6718-2504		4560	1224310		SFPP2545	F2502-3
30mm Syringe Filter 0.45um Nylon with Pre-filter	30-SF-45(N)P	6870-2504				4549	1224135 FPNN2545-100			F2502-9
30mm Syringe Filter 0.20um Polypropylene with Pre-filter	30-SF-02(PP)P	6878-2502				4307	1224175			F2502-10
30mm Syringe Filter 0.45um PTFE with Pre-filter	30-SF-45(T)P	6874-2504				4303	1224164		SFPT2545P	F2502-3
30mm Syringe Filter 0.45um Polypropylene with Pre-filter	30-SF-45(PP)P	6878-2504				4559	1224313		SFPP2545P	F2502-9



# Cross Reference Syringe Filter Units

Syringe Filters  
Alternative parts are based on a direct technical comparison  
Part number alternatives are based upon closest pack quantity.  
Inclusion of parts is no guarantee of identical performance.

		GD/X	Puradisc	EasyDisc	Millex	Acrodisc	Cameo	Cronus		Target	
											
DESCRIPTION	Chromacol	Whatman	Whatman	Whatman	Millipore	PALL	GE Osmonics	LabHut	Kinesis	NSC	
4mm Syringe Filter 0.45um Nylon	4-SF-45(N)		6789-0404		SLHNR04NL		4484	FFNN0445-100	SFNY0445	F2504-1	
4mm Syringe Filter 0.2um Polypropylene	4-SF-02(PP)		6788-0402						SFPP0420	F2504-10	
4mm Syringe Filter 0.45um Cellulose Acetate	4-SF-45(CA)						1213700		SFCA0445	F2504-15	
4mm Syringe Filter 0.2um Cellulose Acetate	4-SF-02(CA)								SFCA0420	F2504-16	
4mm Syringe Filter 0.2um Nylon	4-SF-02(N)		6789-0402		SLGNR04NL		1213705	FFNN0402-100	SFNY0420	F2504-2	
4mm Syringe Filter 0.45um PTFE	4-SF-45(T)		6783-0404		SLFHR04NL	4472	1213721	FFPT0445-100	SFPT0445	F2504-3	
4mm Syringe Filter 0.2um PTFE	4-SF-02(T)		6783-0402		SLFGR04NL			FFPT0402-100	SFPT0420	F2504-4	
4mm Syringe Filter 0.45um PVDF	4-SF-45(PV)		6779-0404		SLHVR04NL			FFPV0445-100	SFPV0445	F2504-5	
4mm Syringe Filter 0.2um PVDF	4-SF-02(PV)		6779-0402		SLGVR04NL	4415		FFPV0402-100	SFPV0420	F2504-6	
4mm Syringe Filter 0.45um Regenerated Cellulose	4-SF-45(RC)							FFRC0445-100	SFRC0445	F2504-7	
4mm Syringe Filter 0.2um Cellulose Acetate	4-SF-02(CA)						1213629		SFCA0420	F2504-8	
4mm Syringe Filter 0.45um Polypropylene	4-SF-45(PP)		6788-0404						SFPP0445	F2504-9	
17mm Syringe Filter 0.45um Nylon	17-SF-45(N)	6870-1304	6789-1304		SLHN013NL		4426	1224753	FFNN1345-100	SFNY1345	F2513-1
17mm Syringe Filter 0.2um Polypropylene	17-SF-02(PP)		6788-1302				4567	1224808		SFPP1320	F2513-10
17mm Syringe Filter 0.45um PES for Ion Chromatography	17-SF-45(PES)		6782-1304					1233548		SFPE1345	F2513-14
17mm Syringe Filter 0.45um Cellulose Acetate	17-SF-45(CA)	6880-1304						1225620	FFCA1345-100	SFCA1345	F2513-15
17mm Syringe Filter 0.2um Cellulose Acetate	17-SF-02(CA)	6880-1302						1225617		SFCA1320	F2513-16
17mm Syringe Filter 0.2um PES for Ion Chromatography	17-SF-02(PES)	6876-1302	6782-1302					1233547		SFPE1320	F2513-17
17mm Syringe Filter 0.2um Nylon	17-SF-02(N)	6870-1302	6789-1302		SLGN013NL	4427	1224746	FFNN1302-100	SFNY1320	F2513-2	
17mm Syringe Filter 0.45um PTFE	17-SF-45(T)	6874-1304	6783-1304		SLFH013NL	4422	1224787	FFPT1345-100	SFPT1345	F2513-3	
17mm Syringe Filter 0.2um PTFE	17-SF-02(T)	6874-1302	6783-1302		SLFG013NL	4423	1224780	FFPT1302-100	SFPT1320	F2513-4	
17mm Syringe Filter 0.45um PVDF	17-SF-45(PV)	6872-1304	6779-1304		SLHV013NL	4457		FFPV1345-100	SFPV1345	F2513-5	
17mm Syringe Filter 0.2um PVDF	17-SF-02(PV)	6872-1302	6779-1302		SLGV013NL	4455		FFPV1302-100	SFPV1320	F2513-6	
17mm Syringe Filter 0.45um Regenerated Cellulose	17-SF-45(RC)							FFRC1345-100	SFRC1345	F2513-7	
17mm Syringe Filter 0.2um Regenerated Cellulose	17-SF-02(RC)							FFRC1302-100	SFRC1320	F2513-8	
17mm Syringe Filter 0.45um Polypropylene	17-SF-45(PP)	6784-1304	6788-1304				4563	1224811		SFPP1345	F2513-9

Notes

1. All part numbers are for equivalent pack sizes of between 50 and 250 units.

2. 25mm devices are comparable and are compared to 30mm units

3. 13mm devices are comparable and compared to 17mm units

4. All trademarks are acknowledged

5. Prefilter units use GMF fiber of 1um porosity

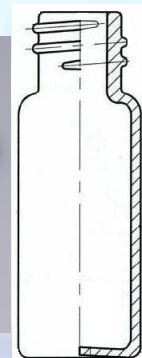
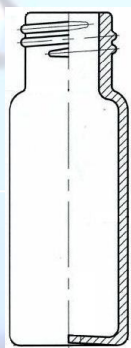


# MS® Sample Vials for Chromatography

11mm Crimp & Screw Cap 2ml 12x32 8-425 and 9-425



... 4ml 13-425 Screw, Headspace 20, 40, 60ml 24-425 Screw ...  
pre-cleaned VOA HS Grade ... also Available



Caps and Septa available separately ... if required



## MS® Sample Vials

MS® Sample vial are made from first hydrolytical class, borosilicate glass, compliant with the requirements of U.S. and European Pharmacopeia which improves your laboratory productivity, by reducing costs and saving time. These products considerably reduce the risk of analytical test results compromised by ghost peaks, damaged needles or dislodged septa, decreasing analysis failures and sample reruns.

MS® offer Type 1, 51-expansion glass vials and type-2, 33- expansion glass vials.

### Feature

- LCGC certificate
- High quality glass Type 1, 51-expansion glass (clear and amber) and type-2, 33- expansion glass (only clear)
- Computerized camera system for quality control throughout the manufacturing process to test critical dimensions, including Height, Diameter, Bottom Thickness and Neck/Thread.
- Compatible with a wide range of HPLC, LCMS and GC Instruments
- Pre-packs including 100 vials and caps for ease and convenience in ordering
- Vials and caps and septas also available separately
- Meet standards set by governing bodies
- Tightest dimensional tolerances in industry

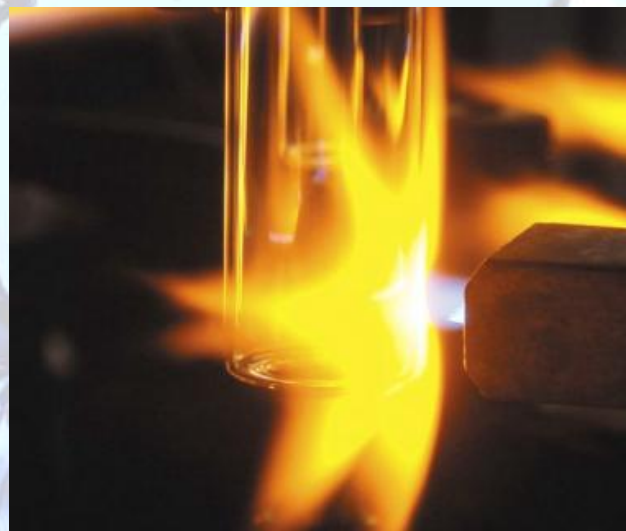
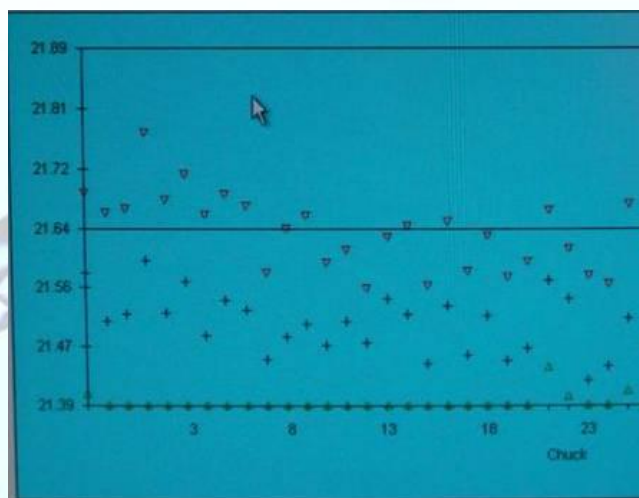
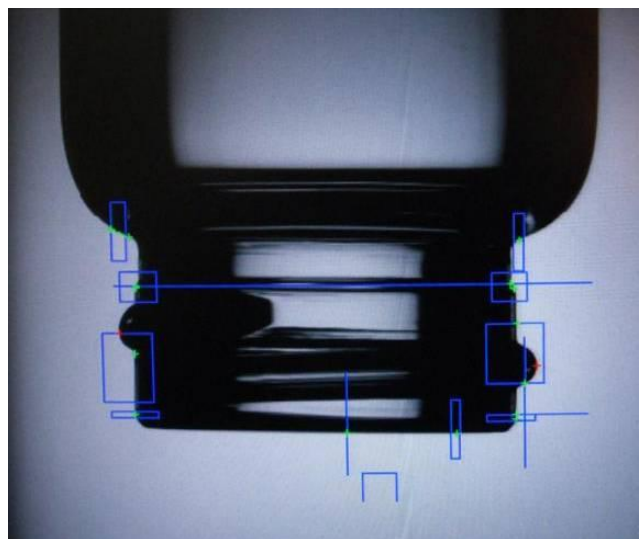
### Application

- HPLC instruments
- LCMS instruments
- GC instruments

### Vial Closures Guide

Available in three types: crimp, snap and screw cap.

Cap Design	Strength Design	Comments
Crimp	Excellent seal	Requires tools
Snap	Moderate seal	Fast, no tools
Screw	Excellent seal	Universal





## Septa Selection Guide

### PTFE

- Recommended for single injection application.
- Ideal for use in MS applications
- Excellent solvent resistance and chemical compatibility
- Does not reseal upon punching
- Not for Long-term sample storage

### PTFE/Silicone

- Recommended for multiple injection and sample storage
- Excellent resealing
- PTFE chemical resistance until punctured, then will have the chemical compatibility of silicone
- Working temperature range from -40 °C to 200 °C
- Pre-slit PTFE/Silicone
- Prevent vacuum formation in vials
- Eliminates coring from bottom draw-port needles
- Good resealing capabilities
- Recommended for multiple injections
- PTFE chemical resistance until punctured, then will have the chemical compatibility of silicone
- Working temperature range from -40 °C to 200 °C



## Vials Selection Guide

- Type 1, 51-expansion borosilicate glass
- type-2, 33- expansion glass
- Deactivated glass (DV)

Treated with gas phase reactive organosilane to produce a hydrophobic glass surface. Can be stored indefinitely.

- Headspace Vials

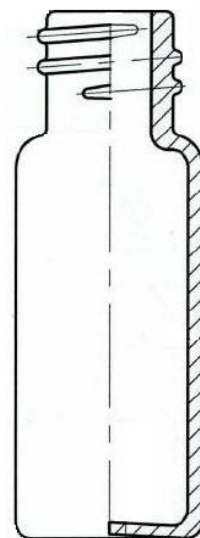
Uniform glass thickness which insures even heat distribution for consistent sampling reliability.



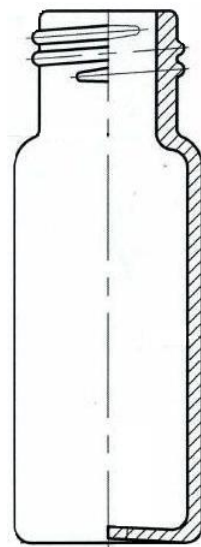


## Ordering Information

Screw Top, Standard Opening Vials		
Part No.	Description	Unit
LBSV012C	2ml Clear vial, 8-425 screw top	100/pk
LBSV032C	2ml Clear vial, 8-425 screw top, graduated with writing area	100/pk
LBSV012A	2ml Amber vial, 8-425 screw top	100/pk
LBSV032A	2ml Amber vial, 8-425 screw top, graduated with writing area	100/pk
Screw caps - 8-425, polypropylene plastic for standard screw top vial		
LBSV012	Black screw cap with hole, for 2ml 8-425 screw top vial	100/pk
LBSV032	Blue screw cap with hole, for 2mL 8-425 screw top vial	100/pk
Septa for 8-425 Screw caps		
LBSV02RS	White PTFE/red silicone septa, for 2ml 8-425 screw top vial	10000/pk
LBSV02SS	Red PTFE/white silicone septa, for 2ml 8-425 screw top vial	10000/pk
Screw caps + Septa for standard screw top vial		
LBSV012CRS	White PTFE/red silicone septa + Black screw cap with hole, for 2ml 8-425 screw top vial	100/pk
LBSV012CSS	Red PTFE/white silicone septa + Black screw cap with hole, for 2ml 8-425 screw top vial	100/pk



Screw Top, Wide Opening Vials		
Part No.	Description	Unit
LBSV002C	2ml Clear vial, 9-425 screw top	100/pk
LBSV022C	2ml Clear vial, 9-425 screw top, graduated with writing area	100/pk
LBSV002A	2ml Amber vial, 9-425 screw top	100/pk
LBSV022A	2ml Amber vial, 9-425 screw top, graduated with writing area	100/pk
Screw caps - 9-425, polypropylene plastic for Wide Opening screw top vial		
LBSV002	Blue screw cap with hole, for 2ml 9-425 screw top vial	100/pk
Septa for 9-425 Screw caps		
LBSV03RS	White PTFE/red silicone septa, for 2ml 9-425 screw top vial	10000/pk
LBSV03SS	Red PTFE/white silicone septa, for 2ml 9-425 screw top vial	10000/pk
LBSV23SS	Blue PTFE/white silicone septa, Pre-slit, for 2mL 9-425 screw top vial	10000/pk
Screw caps + Septa for Wide Opening screw top vial		
LBSV002CRS	White PTFE/red silicone septa + Blue screw cap with hole, for 2ml 9-425 screw top vial	100/pk
LBSV102CSS	Red PTFE/white silicone septa + Blue screw cap with hole, for 2ml 9-425 screw top vial	100/pk
LBSV222CSS	Blue PTFE/white silicone septa, Pre-slit + Blue screw cap with hole, for 2ml 9-425 screw top vial	100/pk





### Crimp Top, Wide Opening Vials

Part No.	Description	Unit
LBSV042C	2ml Clear vial, crimp top	100/pk
LBSV062C	2ml Clear vial, crimp top, graduated with writing area	100/pk
LBSV042A	2ml Amber vial, crimp top	100/pk
LBSV062A	2ml Amber vial, crimp top, graduated with writing area	100/pk

### Crimp seal - aluminum cap with large hole, for crimp top vial

LBSV022	Aluminium cap 11 mm for 2ml crimp top vial	100/pk
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### Septa for Crimp seal - aluminum cap

LBSV04RS	White PTFE/red silicone septa, for 2ml crimp vial	10000/pk
LBSV04SS	Red PTFE/white silicone septa, for 2ml crimp vial	10000/pk

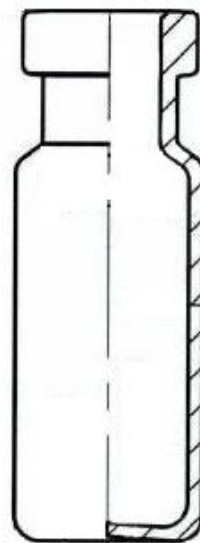
### Aluminum cap + Septa for Wide Opening Crimp top vial

LBSV112CRS	White PTFE/red silicone septa+ Aluminium cap, for 2ml crimp top vial	100/pk
LBSV122CRS	Red PTFE/white silicone septa + Aluminium cap, for 2ml crimp top vial	100/pk

Actual DIM : Volume 1.8ml 32x11.7mm, Top ID 1/4"(6.3mm)

Pics are to scale

Engineering Drawings available : to select Customers ONLY

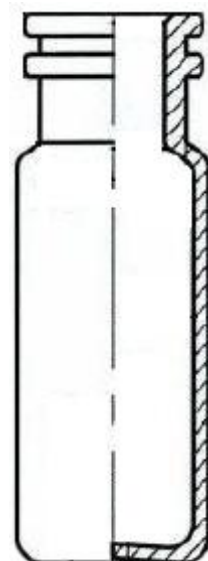


### Snap Ring Top, Wide Opening Vials

Part No.	Description	Unit
LBSV052C	2ml Clear vial, snap top	100/pk
LBSV072C	2ml Clear vial, snap top, graduated with writing area	100/pk
LBSV052A	2ml Amber vial, snap top	100/pk
LBSV072A	2ml Amber vial, snap top, graduated with writing area	100/pk

### Snap caps- for snap ring top vial with bonded-in septa

LBSV202CSS	Red PTFE/white silicone septa + Blue snap cap, for 2ml 9-425 Snap Ring Top vial	100/pk
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both Crimp & Screw Vials available . . .

with and without Graduations / White Marking Spot

Septa - Disc Type ( in-situ pre-moulded ) Silicone Rubber/PTFE laminated

- replacable - Silicone -Top, PTFE - Inner layer

- both red on White and White on Red

**2ml 12\*32mm Vials, flat base, clear and amber - Nominal sizes Only - designed to fit common chromatography Autosamplers**

Standard Opening Crimp Top 8-425	1. Narrow neck crimp top vials fit many older GC autosamplers. 2. Compatible with all 11mm crimp seals and 5mm nominal diameter inserts
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Wide Opening Crimp Top 9-425 eg Agilent Autosamplers	1. Easier to fill 2. Used with either 11mm aluminum seals
---------------------------------------------------------	--------------------------------------------------------------

Standard Opening Screw Thread 8-425	Standard neck vial—8-425 thread finish, 12x32mm outer profile
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Wide opening Screw Thread 9-425	Wide neck vial is easy to fill
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11mm Snap	1. Wide opening vial is easier to fill and provides a larger target area for the autosampler needle 2. Used with snap caps
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**4ml 15\*45mm Vials, flat base**

Screw Thread, Crimp Top, Snap Top Vials

**Headspace Vials**

Beveled Edge, Square Rim

Also Available with 10ml, 20ml, and 40ml vials.

More information please visit our website : [www.chromtech.net.au](http://www.chromtech.net.au) .

Or mail : Chromalytic Technology Pty Ltd in AUSTRALIA at : [info@chromtech.net.au](mailto:info@chromtech.net.au)





## MS® Syringe Filters

MS® syringe filters are simply quality filters, well packaged, and offered at a fair and competitive price. The Classic range is available in all of the major membranes including Nylon, PTFE, PES, MCE and PVDF which are supplied in 13mm, 25mm and 33mm formats in virgin polypropylene housings.

The emphasis is very much on quality. Membrane materials are supplied by the best names in the industry and the ISO9000 certified manufacturing is carried out to the highest standards, in certified clean room conditions, using the latest manufacturing technology to ensure a high quality, consistent product.

All items are quality tests for filter efficacy and housing integrity. The housing is pressure tested for use with up to 75 psig (5.0 bar) of pressure. Designed with a Female Luer-Lok inlet and Male Luer slip outlets. Some Filters are individually wrapped sterile, certified RNase-free, DNase-free, Non-pyrogenic, and DNA-free.



### Colour Coded:

MS® syringe filters are colour coded, providing **easy identification of the membrane type and porosity.**

Click on any of the filters below to view the range we stock with that membrane:

  
White -- PES  
0.22µm, 0.45µm  
13mm, 25mm, 33mm

  
Green -- MCE  
0.22µm, 0.45µm  
13mm, 25mm, 33mm

  
Purple -- PTFE  
0.22µm, 0.45µm  
13mm, 25mm, 33mm

  
Yellow -- Nylon  
0.22µm, 0.45µm  
13mm, 25mm, 33mm

  
Black -- PVDF  
0.22µm, 0.45µm  
13mm, 25mm, 33mm

  
Blue -- MCE  
0.22µm, 0.45µm  
13mm, 25mm, 33mm

  
Orange -- PTFE  
0.22µm, 0.45µm  
13mm, 25mm, 33mm

  
Pink -- Nylon  
0.22µm, 0.45µm  
13mm, 25mm, 33mm

  
Red -- PVDF  
0.22µm, 0.45µm  
13mm, 25mm, 33mm



## Introduction:

MS<sup>®</sup> Nylon syringe filters offer universal application for analytical procedures. Hydrophilic Nylon is ideal for aqueous (non-acidic) or organic sample prep and HPLC, GC or dissolution sample analysis. With its excellent flow characteristics, very low extractable levels and mechanical stability, Nylon offers the best combination of physical parameters to meet the most stringent analytical needs. The naturally hydrophilic, high protein binding and high dirt loading capacity of Nylon are natural advantages.

## Technical Parameter:

Membrane Solutions offer Customized Pore Sizes: **0.1µm, 0.80µm, 1.0µm, 3.0µm, 5.0µm.**

Parameters	13mm		25mm		33mm	
Membrane material/Housing Material	Nylon/PP		Nylon/PP		Nylon/PP	
Filter diameter (mm)	13mm		25mm		33mm	
Filtration area (cm <sup>2</sup> )	0.65		3.90		4.60	
Normal Pore Size(µm)	0.22	0.45	0.22	0.45	0.22	0.45
Holdup volume (µl)	<10		<30		<55	
Sample volume (ml)	<12		<100		<140	
Maximum Operating Temperature	100°C		100°C		100°C	
Maximum Operating Pressure (psi)	75		95		110	
Applicable pH value	3-12		3-12		3-12	

## Order Information:

MS Items	Products Name/Size	Quantity/pk	
<b>Nylon Syringe Filter, 13mm, Non-sterile</b>			
<b>SFNY013010N</b>	Nonsterile Nylon Syringe Filters, 0.10(µm), 13(mm)	500	
<b>SFNY013022N</b>	Nonsterile Nylon Syringe Filters, 0.22(µm), 13(mm)	500	
<b>SFNY013045N</b>	Nonsterile Nylon Syringe Filters, 0.45(µm), 13(mm)	500	
<b>SFNY013080N</b>	Nonsterile Nylon Syringe Filters, 0.80(µm), 13(mm)	500	
<b>SFNY013100N</b>	Nonsterile Nylon Syringe Filters, 1.00(µm), 13(mm)	500	
<b>SFNY013300N</b>	Nonsterile Nylon Syringe Filters, 3.00(µm), 13(mm)	500	
<b>SFNY013500N</b>	Nonsterile Nylon Syringe Filters, 5.00(µm), 13(mm)	500	
<b>Nylon Syringe Filter, 25mm, Non-sterile</b>			
<b>SFNY025010N</b>	Nonsterile Nylon Syringe Filters, 0.10(µm), 25(mm)	200	
<b>SFNY025022N</b>	Nonsterile Nylon Syringe Filters, 0.22(µm), 25(mm)	200	
<b>SFNY025045N</b>	Nonsterile Nylon Syringe Filters, 0.45(µm), 25(mm)	200	



<b>SFNY025080N</b>	Nonsterile Nylon Syringe Filters, 0.80(µm), 25(mm)	200	
<b>SFNY025100N</b>	Nonsterile Nylon Syringe Filters, 1.00(µm), 25(mm)	200	
<b>SFNY025300N</b>	Nonsterile Nylon Syringe Filters, 3.00(µm), 25(mm)	200	
<b>SFNY025500N</b>	Nonsterile Nylon Syringe Filters, 5.00(µm), 25(mm)	200	
<b>Nylon Syringe Filter, 33mm, Non-sterile</b>			
<b>SFNY033022N</b>	Nonsterile Nylon Syringe Filters, 0.22(µm), 33(mm)	200	
<b>SFNY033045N</b>	Nonsterile Nylon Syringe Filters, 0.45(µm), 33(mm)	200	
<b>Nylon Syringe Filter, 13mm, Sterile</b>			
<b>SFNY013010S</b>	Sterile Nylon Syringe Filters, 0.10(µm), 13(mm)	200	
<b>SFNY013022S</b>	Sterile Nylon Syringe Filters, 0.22(µm), 13(mm)	200	
<b>SFNY013045S</b>	Sterile Nylon Syringe Filters, 0.45(µm), 13(mm)	200	
<b>SFNY013080S</b>	Sterile Nylon Syringe Filters, 0.80(µm), 13(mm)	200	
<b>SFNY013100S</b>	Sterile Nylon Syringe Filters, 1.00(µm), 13(mm)	200	
<b>SFNY013300S</b>	Sterile Nylon Syringe Filters, 3.00(µm), 13(mm)	200	
<b>SFNY013500S</b>	Sterile Nylon Syringe Filters, 5.00(µm), 13(mm)	200	
<b>Nylon Syringe Filter, 25mm, Sterile</b>			
<b>SFNY025010S</b>	Sterile Nylon Syringe Filters, 0.10(µm), 25(mm)	200	
<b>SFNY025022S</b>	Sterile Nylon Syringe Filters, 0.22(µm), 25(mm)	200	
<b>SFNY025045S</b>	Sterile Nylon Syringe Filters, 0.45(µm), 25(mm)	200	
<b>SFNY025080S</b>	Sterile Nylon Syringe Filters, 0.80(µm), 25(mm)	200	
<b>SFNY025100S</b>	Sterile Nylon Syringe Filters, 1.00(µm), 25(mm)	200	
<b>SFNY025300S</b>	Sterile Nylon Syringe Filters, 3.00(µm), 25(mm)	200	
<b>SFNY025500S</b>	Sterile Nylon Syringe Filters, 5.00(µm), 25(mm)	200	
<b>Nylon Syringe Filter, 33mm, Sterile</b>			
<b>SFNY033122S</b>	Sterile Nylon Syringe Filters, 0.22(µm), 33(mm)	200	
<b>SFNY033145S</b>	Sterile Nylon Syringe Filters, 0.45(µm), 33(mm)	200	
<b>Nylon Syringe Filter, 13mm, with PP Prefilter, Non-sterile</b>			
<b>SFNY013022NP</b>	Nonsterile Nylon Syringe Filters, 0.22(µm), 13(mm), PP prefilter	100	
<b>SFNY013045NP</b>	Nonsterile Nylon Syringe Filters, 0.45(µm), 13(mm), PP prefilter	100	
<b>Nylon Syringe Filter, 13mm, with PP Prefilter, Sterile</b>			
<b>SFNY013122SP</b>	Sterile Nylon Syringe Filters, 0.22(µm), 13(mm), PP prefilter	100	
<b>SFNY013145SP</b>	Sterile Nylon Syringe Filters, 0.45(µm), 13(mm), PP prefilter	100	
<b>Nylon Syringe Filter, 25mm, with PP Prefilter, Non-sterile</b>			
<b>SFNY025022NP</b>	Nonsterile Nylon Syringe Filters, 0.22(µm), 25(mm), PP prefilter	100	
<b>SFNY025045NP</b>	Nonsterile Nylon Syringe Filters, 0.45(µm), 25(mm), PP prefilter	100	
<b>Nylon Syringe Filter, 25mm, with PP Prefilter, Sterile</b>			
<b>SFNY025122SP</b>	Sterile Nylon Syringe Filters, 0.22(µm), 25(mm), PP prefilter	100	
<b>SFNY025145SP</b>	Sterile Nylon Syringe Filters, 0.45(µm), 25(mm), PP prefilter	100	
<b>Nylon Syringe Filter, 13mm, with Glass Fiber Prefilter, Non-sterile</b>			
<b>SFNY013022NG</b>	Nonsterile Nylon Syringe Filters, 0.22(µm), 13(mm), GF prefilter	100	
<b>SFNY013045NG</b>	Nonsterile Nylon Syringe Filters, 0.45(µm), 13(mm), GF prefilter	100	
<b>Nylon Syringe Filter, 13mm, with Glass Fiber Prefilter, Sterile</b>			
<b>SFNY013122SG</b>	Sterile Nylon Syringe Filters, 0.22(µm), 13(mm), GF prefilter	100	
<b>SFNY013145SG</b>	Sterile Nylon Syringe Filters, 0.45(µm), 13(mm), GF prefilter	100	
<b>Nylon Syringe Filter, 25mm, with Glass Fiber Prefilter, Non-sterile</b>			
<b>SFNY025022NG</b>	Nonsterile Nylon Syringe Filters, 0.22(µm), 25(mm), GF prefilter	100	
<b>SFNY025045NG</b>	Nonsterile Nylon Syringe Filters, 0.45(µm), 25(mm), GF prefilter	100	
<b>Nylon Syringe Filter, 25mm, with Glass Fiber Prefilter, Sterile</b>			
<b>SFNY025122SG</b>	Sterile Nylon Syringe Filters, 0.22(µm), 25(mm), GF prefilter	100	
<b>SFNY025145SG</b>	Sterile Nylon Syringe Filters, 0.45(µm), 25(mm), GF prefilter	100	

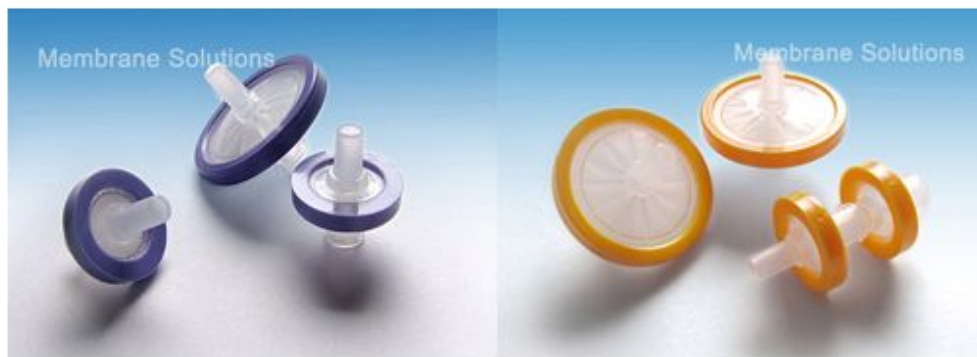
Key: **R**= Recommended, **N**= Not Recommended , **T**= Test, **L**= Limited Resistance (Testing before use is recommended)

SOLVENTS		ACIDS	
Chemical	Nylon Filter Media	Chemical	Nylon Filter Media
Acetone	R	Acetic Acid,5%	R
Acetonitrile	R	Acetic Acid,10%	L
Amyl Acetate	R	Acetic Acid,Glacial	N
Aniline	R	Boric Acid	L
Benzene	R	Hydrochloric, 6N	N
Bromoform	R	Hydrochloric, Conc.	N
Butyl Acetate	R	Hydrofluoric, 10%	N
Carbon Tetrachloride	R	Hydrofluoric, 35%	N
Cellosolve	R	Nitric Acid, 6N	N
Chloroform	R	Nitric Acid, Conc.	N
Cyclohexane	R	Sulfuric Acid, 6N	N
Cyclohexanone	R	Sulfuric Acid, Conc.	N
Diethyl Acetamide	R	<b>BASES</b>	
Dimethyl Formamide	R	Chemical	Nylon Filter Media
Dimethyl Sulfoxide(DMSO)	R	Ammonium Hydroxide, 6N	N
Dioxane	R	Potassium Hydroxide, 6N	R
Ethyl Ether	R	Sodium Hydroxide, 6N	N
Ethylene Dichloride	R	<b>MISC.</b>	
Formaldehyde	R	Chemical	Nylon Filter Media
Freon TF	R	Cottonseed Oil	R
Gasoline	R	Hydrogen Peroxide(30%)	R
Hexane	R	Kodak KMER, FTFR	R
Isopropyl Acetate	R	Peanut Oil	T
Kerosene	R	Petroleum Oils	R
Methyl Acetate	R	Sesame oil	R
Methyl Ethyl Ketone(MEK)	R	Shipley(AS-111, 340, 1350)	R
Methyl Isobutyl Ketone	R	Silicone Oils	R
Methylene Chloride	L	Turpentine	R
Nitrobenzene	R	Waycoat 59	R
Pentane	R	<b>ALCOHOLS</b>	
Perchloroethylene	R	Chemical	Nylon Filter Media
Pyridine	R	Amyl Alcohol	R
Tetrahydrofuran	L	Benzyl Alcohol	L
Toluene	R	Butyl Alcohol	R
Trichloroethane	R	Ethyl Alcohol <80%	R
Trichloroethylene	R	Ethyl Alcohol >80%	R
Trithylamine	R	Ethylene Glycol	R
Xylene	R	Glycerine(Glycerol)	R
		Isobutyl Alcohol	R
		Isopropanol	R
		Methanol	L
		Methyl Cellosolve	R
		Propanol	R

**Membrane Solutions**



## MS® PTFE Syringe Filter



### Product Description:

MS® Syringe filters are purpose-built with features designed to bring the highest levels of performance and purity to your research. We incorporate a variety of membranes to offer separation and purification solutions for the majority of your laboratory needs.

### Features and Benefits:

- Broad chemical compatibility
- Strong chemical stability and inertia
- Strong hydrophobicity
- Syringe Filters for Cell Culture provide effective filtration for a wide variety of sample types. They are available in two pore sizes (0.22µm and 0.45µm) and four different membrane types.
- All items are quality tests for filter efficacy and housing integrity. The housing is pressure tested for use with up to 75 psig (5.0 bar) of pressure
- Designed with a Female Luer-Lok inlet and Male Luer slip outlets.
- Some Filters are individually wrapped sterile, certified RNase-free, DNase-free,
- Non-pyrogenic, and DNA –free.

### Application:

- Organic solvent with strong chemical causticity filtration
- strong acid solvent filtration
- Alkali solvent filtration

### Technical Specification:

Parameters	13mm		25mm		33mm	
Membrane material	PTFE		PTFE		PTFE	
Housing material	PP		PP		PP	
Filter diameter (mm)	13mm		25mm		33mm	
Filtration area (cm <sup>2</sup> )	0.65		3.90		4.60	
Pore Size (µm)	0.22	0.45	0.22	0.45	0.22	0.45
Holdup volume (µl)	<10		<30		<55	
Sample volume (ml)	<12		<100		<140	
Maximum Operating Temperature	130°C		130°C		130°C	
Maximum Operating Pressure (psi)	130		130		130	
Applicable pH value	1-14		1-14		1-14	

## MS® PES Syringe Filter



### Product Description:

MS® Syringe filters are purpose-built with features designed to bring the highest levels of performance and purity to your research. We incorporate a variety of membranes to offer separation and purification solutions for the majority of your laboratory needs. PES(Polyethersulfone) – low affinity for proteins and extractable with substantially faster flow rates than PVDF; suitable for pre-filtration and filtration of buffers and culture media.

### Features and Benefits:

- High filtration speed
- Lowest protein binding
- Syringe Filters for Cell Culture provide effective filtration for a wide variety of sample types. They are available in two pore sizes(0.22µm and 0.45µm)
- All items are quality tests for filter efficacy and housing integrity. The housing is pressure tested for use with up to 75 psig (5.0 bar) of pressure
- Designed with a Female Luer-Lok inlet and Male Luer slip outlets.
- some Filters are individually wrapped sterile, certified RNase-free, DNase- free,
- Non-pyrogenic, and DNA –free.
- Low exextractables

### Application:

- Sterile filtering protein solution
- Tissue culture media filtration
- Tissue culture additive filtration

### Technical Specification:

Parameters	13mm		25mm		33mm	
Membrane material	PES		PES		PES	
Housing material	PP		PP		PP	
Filter diameter (mm)	13mm		25mm		33mm	
Filtration area (cm <sup>2</sup> )	0.65		3.90		4.60	
Pore Size(µm)	0.22	0.45	0.22	0.45	0.22	0.45
Holdup volume (µl)	<10		<30		<55	
Sample volume (ml)	<12		<100		<140	
Maximum Operating Temperature	90°C		90°C		90°C	
Maximum Operating Pressure (psi)	50		95		120	
Applicable pH value	1-14		1-14		1-14	



## *MS® SteriBio Syringe Filters*

*----- Ideal for Proteinaceous Samples and Tissue Culture Work*



MS® SteriBio syringe filters are available with Polyethersulphone (PES) and Cellulose Acetate (CA) membranes. Each filter is individually packed and sterilized by Gama Radiation. Every box is printed with a Batch Number and Expiry Date for quick and easy QC tracking.

SteriBio Cellulose Acetate and PES syringe filters have particularly low adsorption which ensures minimal loss of proteins and preservatives.

Membrane Solutions offer Syringes (sterile) which are suitable for sterilization filtration together with MS® SteriBio syringe filters.



- All the Syringes are sterilized by Ethylene Oxide,
- Individually packaged.
- No-toxic
- Pyrogen free

# MS® SteriBio Syringe Filters

## Introduction:

<p><b>CA</b> (Cellulose Acetate) combine high flow rates and thermal stability with very low absorption characteristics. Especially 0.22um pore size CA Sterile Syringe Filter excellently suited for sterilization aqueous solutions, buffers, sera and media. Low protein binding to minimize sample loss</p>	<p><b>PES</b> (polyethersulphone)resistant to a wide range of solvents and offers low binding to proteins and nucleic acid. PES is also recommended for ion chromatography. Hydrophilic, low protein binding, low extractables with high throughput (flow) make this unit useful for aqueous, biological or protein based filtration.</p>
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## Application:

<p><b>CA Sterile Syringe Filter:</b></p> <ul style="list-style-type: none"><li>• Sterilize biological fluids, serum or media additives,</li><li>• Sample preparations of aqueous solutions,</li><li>• Sample preparation of protein-based HPLC solutions,</li><li>• High throughput, low binding filter units for non-sterile aqueous filtrations,</li><li>• Filtrations of tissue culture media,</li><li>• High throughput for sterile or non-sterile clarification of even the most viscous proteinaceous Solutions,</li><li>• Filter probe and hybridization solutions to reduce backgrounds,</li></ul> <p><b>Note:</b></p> <ul style="list-style-type: none"><li>• CA Membrane is not compatible with organic solvents.</li><li>• CA Membrane chemical campatibility range is pH4-8.</li></ul>	<p><b>PES Sterile Syringe Filter:</b></p> <ul style="list-style-type: none"><li>• Sterilize biological fluids, serum or tissue culture media additives</li><li>• Sample preparation of aqueous solutions</li><li>• High throughput, low binding filter</li><li>• Units for sterile aqueous filtrations</li><li>• Filter probe and hybridization solutions to reduce backgrounds</li><li>• Sample preparation of protein-based HPLC solutions</li><li>• High throughputs when sterilizing or clarifying even the most viscous proteinaceous solutions,</li><li>• probe solutions;</li><li>• protein and enzyme filtrations;</li><li>• hybridization buffers and other aqueous solutions.</li></ul>
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**Technical Parameter:**

Parameters	CA (Sterile)			PES (Sterile)		
	13mm	25mm	33mm	13mm	25mm	33mm
Membrane material	CA	CA	CA	PES	PES	PES
Housing material	PP	PES	PP	PP	PES	PP
Filtration area (cm <sup>2</sup> )	0.65	3.90	4.60	0.65	3.90	4.60
Pore Size(μm)	0.22 / 0.45	0.22 / 0.45	0.22 / 0.45	0.22 / 0.45	0.22 / 0.45	0.22 / 0.45
Holdup volume (μl)	<10	<30	<55	<10	<30	<55
Sample volume (ml)	<12	<100	<140	<12	<100	<140
Maximum Operating Temperature	110°C	110°C	110°C	90°C	90°C	90°C
Maximum Operating Pressure (psi)	50	95	120	50	95	120
Applicable pH value	4-8	4-8	4-8	1-14	1-14	1-14

**Order Information:**

PES Sterile Syringe Filter, Gama Sterile, Individually Package		
Item NO.	Discription	package
SFPES013022S	Sterile PES Syring Filters, 0.22(μm), 13(mm)	100
SFPES013045S	Sterile PES Syring Filters, 0.45(μm), 13(mm)	100
SFPES025022S	Sterile PES Syring Filters, 0.22(μm), 25(mm)	100
SFPES025045S	Sterile PES Syring Filters, 0.45(μm), 25(mm)	100
SFPES033022S	Sterile PES Syring Filters, 0.22(μm), 33(mm)	100
SFPES033045S	Sterile PES Syring Filters, 0.45(μm), 33(mm)	100

CA Sterile Syringe Filter, Gama Sterile, Individually Package		
Item NO.	Discription	package
SFCA013022S	Sterile CA Syringe Filters, 0.22(μm), 13(mm)	100
SFCA013045S	Sterile CA Syringe Filters, 0.45(μm), 13(mm)	100
SFCA025022S	Sterile CA Syringe Filters, 0.22(μm), 25(mm)	100
SFCA025045S	Sterile CA Syringe Filters, 0.45(μm), 25(mm)	100
SFCA033022S	Sterile CA Syringe Filters, 0.22(μm), 33(mm)	100
SFCA033045S	Sterile CA Syringe Filters, 0.45(μm), 33(mm)	100

Chemical Compatibility Chart For CA / PES Membrane

Key: R= Recommended, N= Not Recommended , T= Test, L= Limited Resistance (Testing before use is recommended)						
				ACIDS		
Chemical	CA	PES		Chemical	CA	PES
Acetone	N	N		Acetic Acid,5%	R	R
Acetonitrile	N	R		Acetic Acid,10%	N	R
Amyl Acetate	L	L		Acetic Acid,Glacial	N	R
Aniline	N	R		Boric Acid	R	T
Benzene	L	R		Hydrochloric, 6N	L	R
Bromoform	N	T		Hydrofluoric, 10%	N	R
Butyl Acetate	L	L		Nitric Acid, 6N	L	N
Carbon Tetrachloride	L	R		Nitric Acid, Conc.	L	N
Cellosolve	R	T		Sulfuric Acid, 6N	L	T
Chloroform	N	N		Sulfuric Acid, Conc.	N	N
Cyclohexane	R	T		BASES		
Cyclohexanone	N	N		Chemical	CA	PES
Diethyl Acetamide	N	T		Ammonium Hydroxide, 6N	N	R
Dimethyl Formamide	N	N		Potassium Hydroxide, 6N	N	T
Dimethyl Sulfoxide(DMSO)	N	N		Sodium Hydroxide, 6N	N	R
Dioxane	N	L		MISC.		
Ethyl Ether	L	R		Chemical	CA	PES
Ethylene Dichloride	L	T		Hydrogen Peroxide(30%)	N	T
Formaldehyde	L	R		Kodak KMER, FTFR	N	T
Freon TF	R	R		Peanut Oil	R	L
Gasoline	R	T		Petroleum Oils	T	L
Hexane	R	T		Sesame oil	R	T
Isopropyl Acetate	N	T		Shipley(AS-111, 340, 1350)	N	T
Kerosene	R	T		Silicone Oils	R	R
Methyl Acetate	N	T		ALCOHOLS		
Methyl Ethyl Ketone(MEK)	N	N		Chemical	CA	PES
Methyl Isobutyl Ketone	N	T		Amyl Alcohol	R	N
Methylene Chloride	N	N		Benzyl Alcohol	L	N
Nitrobenzene	N	N		Butyl Alcohol	R	R
Pentane	R	R		Ethyl Alcohol <80%	L	T
Perchloroethylene	R	N		Ethyl Alcohol >80%	R	R
Pyridine	N	N		Ethylene Glycol	R	R
Tetrahydrofuran	N	N		Glycerine(Glycerol)	R	R
Toluene	L	N		Isobutyl Alcohol	R	T
Trichloroethane	L	R		Isopropanol	R	R
Trichloroethylene	R	R		Methanol	R	R
Triethylamine	R	T		Methyl Cellosolve	L	T
Xylene	R	I		Propanol	R	T



## MS® PVDF Syringe Filter



### Product Description:

MS® Syringe filters are purpose-built with features designed to bring the highest levels of performance and purity to your research. We incorporate a variety of membranes to offer separation and purification solutions for the majority of your laboratory needs. PVDF (Polyvinylidene fluoride) – extremely low protein-binding; for filtration of non-aggressive aqueous and mild organic solutions, or where maximizing protein recovery is important.

### Features and Benefits:

- Good heat—endurance and chemical stability, strong hydrophobicity
- Syringe Filters for Cell Culture provide effective filtration for a wide variety of sample types. They are available in two pore sizes (0.22µm and 0.45µm)
- All items are quality tested for filter efficacy and housing integrity. The housing is pressure tested for use with up to 75 psig (5.0 bar) of pressure
- Designed with a Female Luer-Lok inlet and Male Luer slip outlets.
- Some filters are individually wrapped sterile, certified RNase-free, DNase-free,
- Non-pyrogenic, and DNA-free.

### Technical Specification:

- Gas filtration
- Vapor filtration
- High-temperature filtration
- Food industry
- Medicine filtration

### Technical Specification:

Parameters	13mm		25mm		33mm	
Membrane material	PVDF		PVDF		PVDF	
Housing material	PP		PP		PP	
Filter diameter (mm)	13mm		25mm		33mm	
Filtration area (cm <sup>2</sup> )	0.65		3.90		4.60	
Pore Size (µm)	0.22	0.45	0.22	0.45	0.22	0.45
Holdup volume (µl)	<10		<30		<55	
Sample volume (ml)	<12		<100		<140	
Maximum Operating Temperature	100°C		100°C		100°C	
Maximum Operating Pressure (psi)	50		95		110	
Applicable pH value	1-14		1-14		1-14	



## MS<sup>®</sup> G-MP syringe filter



### Introduction

MS<sup>®</sup> G-MP syringe filters are designed specially to filter high particulate solutions. With four layers, the first filter is a composite membrane of 10µm glass fiber and 1.0µm PP, the second prefilter is 0.7µm GF/F membrane media, the last one is filtration media as specified. G-MP special membrane materials can eliminate sample contamination and allow you to filter difficult samples with less hand pressure and fast flow rate. They prevent the build up of back pressure typically caused by the blocking of an unprotected membrane.

### Feature

#### Increased volume throughput:

Volume of sample filtered can be three to seven times greater than conventional filters.

#### Superior performance:

Four layers of filtration media reduce blockage and the need to replace the filter in mid-operation.

#### Less hand force required:

The unique pre-filter layer allows high particulate samples to be filtered with less hand force, minimizing operator fatigue.





## Application

- Hard-to-filter samples
- Dissolution testing
- Content uniformity
- Environmental samples
- Composite assays
- Food analysis
- Biofuel analysis

## Technical Specification

<b>Specification</b>	25mm
<b>Filtration Area</b>	4.6cm <sup>2</sup>
<b>Maximum Pressure</b>	75psi(5.2bar)
<b>Materials of construction</b>	Housing: Polypropylene Filtration Media: As specified
<b>Connectors</b>	Inlet: Female Luer Lock (FLL) Outlet: Male Luer (ML)
<b>Flow direction</b>	Flow from inlet to outlet (FLL to ML)

## Order Information

25mm Non-sterile

Catalog No.	Membrane	Pore size(μm)	Package(pcs/pk)
SFNY025022NM	Nylon	0.22	100
SFNY025045NM	Nylon	0.45	100
SFPVDF025022NM	PVDF	0.22	100
SFPVDF025045NM	PVDF	0.45	100
SFPTFE025022NM	PTFE	0.22	100
SFPTFE025045NM	PTFE	0.45	100
SFPES025022NM	PES	0.22	100
SFPES025045NM	PES	0.45	100
SFPP025022NM	PP	0.22	100
SFPP025045NM	PP	0.45	100
SFCA025022NM	CA	0.22	100
SFCA025045NM	CA	0.45	100

**Note: Sterilization is available.**

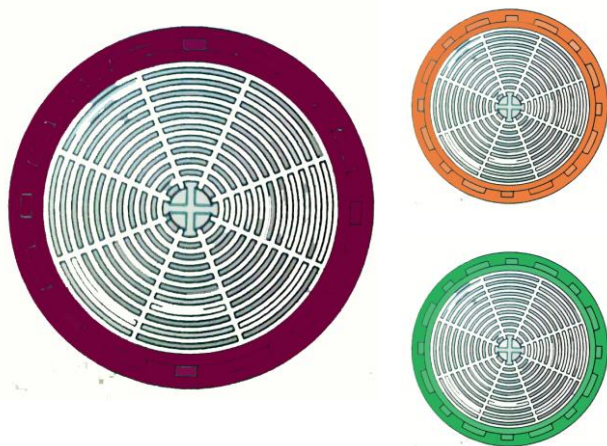
## Superpure™ Syringe Filter

**5 Improvements, 5 Days Delivery**

**Same Low Price**

**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**.



### Features and Benifits

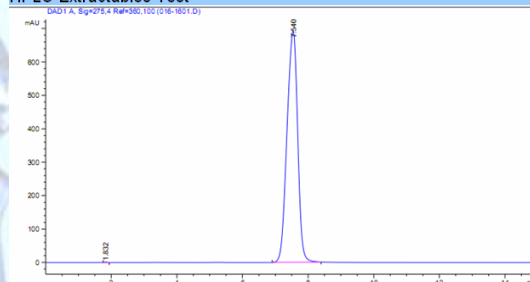
- **Color coding:** Easier to tell the filter membrane
- **Larger filtration areas:** ( bigger than 33mm) Increased sample throughout
- **Added sample distribution ring:** Improved membrane flows
- **High resolutions print:** Easier to tell the pore size of filter
- **Better membrane media:** Improved 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

### Application

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

### Validated HPLC Performance

#### HPLC Extractables Test



Agilent Technologies 1200, Column: C18 UV = 254 nm Mob.phase:MeOH/H<sub>2</sub>O: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 <sup>2</sup> )	1.65	5.39
Pore Size (µm)	0.22, 0.45.....	
Holdup volume (µl)	<25	<100
Sample volume (ml)	<20	<200
Inlet connection	Female luer lock	
Outlet connection	Male luer slip	
Maximum Operating Temperature	50°C	50°C
Maximum Operating Pressure	6 bar	6 bar



## How to select your sample preparation device?

### ➤ Step 1: Choose the suitable membrane filtration medium Characteristics of samples

Solutions	Recommended
Solvent Mixtures	Nylon, MCE
Tissue culture Media, Buffers, Protein Analysis/ Biological Samples	CA, PVDF, PES
High Particulate Loads	With GF or PP pre-filter
Aggressive or Pure Organic Solvents	PTFE, PVDF





### ➤ Step2: choose the suitable diameter

Volume of samples	
<20ml	<200ml
17mm	30mm



### ➤ Step 3: Choose the suitable pore size based on the nature of your sample

- Removal of high particulate matter with a glass fiber pre filter is critical before any drug, toxic, or dirty environmental sample is filtered to ensure the highest syringe filter membrane performance.
- Generally, 0.45 µm porosity filters are used to remove particulates from samples and mobile phase solutions. For sterile-filtration, a 0.20 µm porosity filter can be used.

	Order No.	Pore Size(µm)	Membrane	Diameter	Package	Price (US\$/PK)
	SFNY017022N	0.22	Nylon66	17mm,	100/pk	
	SFNY017045N	0.45	Nylon66	17mm,	100/pk	
	SFNY030022N	0.22	Nylon66	30mm,	100/pk	
	SFNY030045N	0.45	Nylon66	30mm,	100/pk	
	SFPES017022N	0.22	PES	17mm,	100/pk	
	SFPES017045N	0.45	PES	17mm,	100/pk	
	SFPES030022N	0.22	PES	30mm,	100/pk	
	SFPES030045N	0.45	PES	30mm,	100/pk	
	SFPTFE017022NB	0.22	PTFE	17mm,	100/pk	
	SFPTFE017045NB	0.45	PTFE	17mm,	100/pk	
	SFPTFE030022NB	0.22	PTFE	30mm,	100/pk	
	SFPTFE030045NB	0.45	PTFE	30mm,	100/pk	
	SFPVDF017022N	0.22	PVDF	17mm,	100/pk	
	SFPVDF017045N	0.45	PVDF	17mm,	100/pk	
	SFPVDF030022N	0.22	PVDF	30mm,	100/pk	
	SFPVDF030045N	0.45	PVDF	30mm,	100/pk	

- Note:**
1. Sterile Syringe filter of all material are available.
  2. Free samples are welcomed. We've standard sample pack for customers



Membrane Solutions LLC

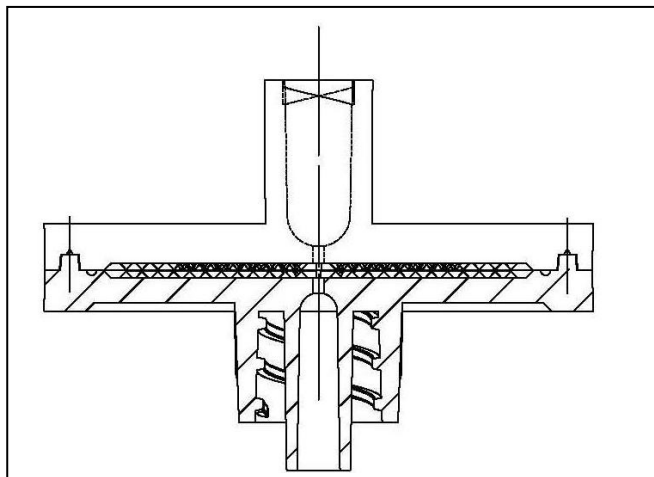


## Superpure™

**5 Improvements, SAME LOW PRICE, 5 Days Delivery****New range of HPLC 17mm, 30mm Syringe Filters****New Filter Design Drawing**

The Superpure 17 mm and Superpure 30 mm syringe filters manufactured by Membrane Solutions are designed to speed up and increase sample volume throughput while reducing thumb pressure. The 17 mm and 30 mm sizes, replacing the 13 mm and 25 mm sizes, offer far more value to researchers due to several new features.

They will be available with one of the following membranes in 0.22 µm or 0.45 µm pore size: Nylon66, MCE, PTFE, PES and PVDF. These filters should mainly be used for small sample volumes where the dead volume should be kept to a minimum.

**Improved Performance Benefits:**

Feature	Benefit
Color coding	Easier to tell the filter membrane
Larger filtration areas ( bigger than 33mm)	Increased sample throughout
Female lure lock	Can be used as the venting filter
High resolutions print	Easier to tell the pore size of filter
Better membrane media	Improved membrane flow rates

**This table offers general guidelines for membrane characteristics and compatible applications.**

Membrane Type	Membrane Characteristics	Applications
Nylon66	Most frequently selected membrane; broad compatibility with aqueous and organic samples; naturally hydrophilic membrane; extremely low in extractables; excellent flow rate with most sample matrices; not compatible with strong acids or bases	General laboratory filtration; filtration for most HPLC samples. NOTE: Nylon binds protein, do not use when high protein recovery is desired
Polyethersulfone	High flow rates with good throughput volume; low protein binding; compatible with high temperature liquids; mechanically strong membrane low in inorganic extractable ions	PES is certified for Ion Chromatography; Tissue Culture filtration; filtration of proteins and nucleic acids
PTFE	Hydrophobic membrane is resistant to nearly all solvents, acids, and bases; membrane is mechanically strong and will withstand exposure to high temperature liquids; low in extractables; PTFE blocks water vapor; can be used to filter aqueous solutions	Filtration of aggressive organic, highly basic or hot solutions, ideal for transducer protectors
Hydrophilic PTFE	Hydrophilic PTFE is especially useful in HPLC sample preparation and is highly resistant to most solvents. And it's generally used for aqueous-based biological samples.	Filtration of aggressive organic, highly basic or hot solutions, ideal for aqueous filtration
MCE	Ideal for aqueous-based samples; high protein recovery from filtrate; higher tensile strength compared to CA	Aqueous sample preparation
PVDF	High protein binding, Hydrophobic membrane is resistant to nearly most solvents acid and bases.	Filtration of aggressive organic

## Vacuum Pump

### Products Picture



VPJ0201



VPJ0332



VPJ0333



VPJ0501



VPJ0502



VPJ1001

### Application Examples

- Vacuum filtration
- Vacuum distillation
- Vacuum drying
- On rotary evaporators
- To extract and transfer gases

#### Attachments

1. Vacuum gauge (-0.1Mpa) 1 piece
2. Connecting rubber pipe ( $\Phi 7\text{mm} \times \Phi 12\text{mm} \times 800\text{mm}$ ) 1 piece

### Features

- It can be in service under the condition of no working medium (no oil) and will not produce any pollution. Moreover, there is filtering material in the air exchange bin to guarantee the air clean.
- New technologies and materials are used in production. It is easy to move and can work smoothly, which can guarantee the ideal vacuum and high rate of air flowing.
- It adopts the operation containing no friction, producing no calories and having no friction exhausts. The diaphragm is made of Nitrile Rubber, which resists the corrosion and has long operating life.
- The self-cooling air draft system is designed in the body. This system can keep the machine continuously running for 24 hours.
- The design can be regulated by pressure to meet the requirements of vacuum or controllable steady air stream within certain range.
- The axletrees are classical, which are imported abroad. They have the features of steady running, low noise and high operating efficiency



## Technique Data

### 1.VPJ0201

#### (Technique Parameter)



Speed of Evacuation(l/m)	12	Working temperature of pump body	<55
Ultimate Pressure	300mbar	Noise Level(DB)	<50
Inlet(mm)	φ6	Overall Size L x W x H (mm)	195×98×156
Power of electrical engine(W)	Single phase.75	Weight(Kg)	4
Temperature of working environment(°C)	7—40	Pump Head	Nylon

### 2.VPJ0332

#### (Technique Parameter)



Pumping speed:(L/Min)	20	Temp of the body(°C)	<55
Ultimate Pressure	<0.075Mpa/250mbar	Noise Level(DB)	<50
Inlet(mm)	φ6 (Silencer)	Dimensions (L x B x H) (mm)	235×140×210
Power (w)	200	Weight(Kg)	7.5
Air Changing Bin	Teflon coated	Working Temp(°C)	7—40
Voltage Rating	230Vac, 50Hz	Pump Head	1
Material of Diaphragm and valve	HNBR	Remark	Negative pressure

### 3.VPJ0333

#### (Technique Parameter)



Pumping speed:(L/Min)	20	Temp of the body(°C)	<55
Ultimate Pressure	<0.095Mpa/50mbar	Noise Level (DB)	<50
Inlet(mm)	φ6(Silencer)	Dimensions (LxBxH) (mm)	282×130×210
Power(W)	250	Weight(Kg)	10
gas chamber	Teflon coated	Working Temp(°C)	7—40
Voltage Rating	230Vac, 50Hz	Pump Head	2
Material of Diaphragm and valve	HNBR	Remark	Negative pressure

#### 4. VPJ0501

(Technique Parameter)



Pumping speed:(L/Min)	30	Temp of the body(°C)	<55
Ultimate Pressure	250mbar	Noise Level(DB)	<50
Inlet(mm)/Outlet (mm)	φ6/φ6	Dimensions(L x B x H) (mm)	215×165×270
Power (w)	200	Weight(Kg)	8
gas chamber	Teflon coated	Working Temp(°C)	7—40
Voltage Rating	230Vac, 50Hz	Pump Head	1
Material of Diaphragm and valve	HNBR	Remark	Dual purpose of positive pressure and negative pressure

#### 5.VPJ0502

(Technique Parameter)



Pumping speed:(L/Min)	30	Temp of the body(°C)	<55
Ultimate Pressure	<0.095Mpa, 50mbar	Noise Level(DB)	<50
Inlet(mm)/Outlet (mm)	φ6/Silencer	Dimensions(L x B x H) (mm)	282×130×210
Power (w)	250	Weight(Kg)	10
Gas chamber	Teflon coated	Working Temp(°C)	7—40
Voltage Rating	230Vac, 50Hz	Pump Head	2
Material of Diaphragm and valve	HNBR	Remark	Negative pressure

#### 6.VPJ1001

(Technique Parameter)



Pumping speed:(L/Min)	60	Temp of the body(°C)	<55
Positive pressure	>30psi	Noise Level (DB)	<50
Ultimate Pressure	250mbar		
Inlet(mm)/Outlet (mm)	φ6/φ8	Dimensions(L x B x H)(mm)	282×155×210
Power (w)	250	Weight(Kg)	9
gas chamber	Teflon coated	Working Temp(°C)	7—40
Voltage Rating	230Vac, 50Hz	Pump Head	2
Material of Diaphragm and valve	HNBR	Remark	Dual purpose of positive pressure and negative pressure



**Attachments**

1. Vacuum gauge (-0.1Mpa) 1 piece
2. Connecting rubber pipe ( $\Phi 7\text{mm} \times \Phi 12\text{mm} \times 800\text{mm}$ ) 1 piece

**Order Information**

Item Number	Unit Price(US\$/set)	
	Qty<10pcs	Qty>10pcs
VPJ0201	186.71	148.57
VPJ0332	314.29	251.43
VPJ0333	400.05	320.26
VPJ0501	389.79	310.28
VPJ0502	400.05	320.26
VPJ1001	400.05	320.26

# MS<sup>®</sup> Reusable Syringe Filter Holders



## Introduction

The Re-usable Syringe Filter holders are unaffected by chemicals and contains no trace elements which could be released into the liquid being filtered. It is therefore extremely well suited for particle removal for sample preparation.

## Feature

- Compatibility Chemical resistance as for polycarbonate and silicone
- Dead volume Less than 0.3 ml after bubble point
- Filter Requires 13, 25, 50 mm diameter membrane filter
- 25 mm diameter Filtration area 3 cm<sup>2</sup>
- Flow rates• Typical values for water at 1 bar (100 kPa), 70 ml/min with 0.2µm, 110 ml/min with 0.45 µm pore size filters
- Materials• polypropylene top and bottom part. Silicone gasket (20.5 x 26.5mm, replacement for a pack of 10)
- Pressure limit• Max. operating pressure, 7 bar (700 kPa)
- Sterilisation By autoclaving (121°C)

## Application

- Gas particulate and bacteria filtration and then inspect them
- Oil particulate and bacteria filtration and then inspect them
- Alcohol particulate and bacteria filtration and then inspect them
- Other solvent particulate and bacteria filtration and then inspect them

## Order Information



[!\[\]\(a3ea015cc5581cad732d1eb81613fe7b\_img.jpg\) PTFE Syringe Filter](#)

[!\[\]\(c8d96c8885d3000a912c2582004aed63\_img.jpg\) PES Syringe Filter](#)

[!\[\]\(919a2cb85b99741a73c0c31a427236a8\_img.jpg\) MCE Syringe Filter](#)

[!\[\]\(666e09182d4cd268646ea700ea60dcdf\_img.jpg\) PVDF Syringe Filter](#)

[!\[\]\(c3d993ca47bfe2a953c700506ce31fa0\_img.jpg\) CA Syringe Filter](#)

[!\[\]\(d66ff64371a51729ac8c1cdaa685ba6f\_img.jpg\) PP Syringe Filter](#)

[!\[\]\(e3f8612927870f2e0f9f5989e6dd3064\_img.jpg\) Glass Fiber Syringe Filter](#)

[!\[\]\(003082e50e3009141f59bd5df831749f\_img.jpg\) Reusable Syringe Filter Holders](#)

[!\[\]\(17413706fd4997a1a4bdf85c6864eee1\_img.jpg\) Syringe Filter with Prefilter](#)

[!\[\]\(faf942dc3e59ce8eb64b4ac481eca7e0\_img.jpg\) 50mm Syringe Filter](#)

[!\[\]\(cf531ed27e91483460120fcc057b3901\_img.jpg\) Cartridge Filter](#)

[!\[\]\(d3102649f02e825ddb76dc3de0190154\_img.jpg\) Filter Bag](#)

- Compatibility Chemical resistance as for polycarbonate and silicone
- Dead volume Less than 0.3 ml after bubble point
- Filter Requires 13, 25, 50 mm diameter membrane filter
- 25 mm diameter Filtration area 3 cm<sup>2</sup>
- Flow rates• Typical values for water at 1 bar (100 kPa), 70 ml/min with 0.2µm, 110 ml/min with 0.45 µm pore size filters
- Materials• polypropylene top and bottom part. Silicone gasket (20.5 x 26.5mm, replacement for a pack of 10)
- Pressure limit• Max. operating pressure, 7 bar (700 kPa)
- Sterilisation By autoclaving (121°C)

### Application

- Gas particulate and bacteria filtration and then inspect them
- Oil particulate and bacteria filtration and then inspect them
- Alcohol particulate and bacteria filtration and then inspect them
- Other solvent particulate and bacteria filtration and then inspect them

### Order Information

Item#	Description	Pcs per box		
SFRPP13	Reusable Syringe Filter, Polypropylene Housing,Diameter:13 (mm)	10		
SFRPP25	Reusable Syringe Filter, Polypropylene Housing,Diameter:25 (mm)	10		
SFRPP35	Reusable Syringe Filter, Polypropylene Housing,Diameter:35 (mm)	10		
SFRPP50	Reusable Syringe Filter, Polypropylene Housing,Diameter:50 (mm)	10		
SFRSS13	Reusable Syringe Filter, Stainless Steel Housing,Diameter:13 (mm)	10		

# Syringeless Filter Devices



## Introduction

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

MS @syringeless filter adopts standard size, can cooperate with HPLC instrument perfectly. Two membrane apertures 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.

## How it works

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

## 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 needs to avoid light

## Features

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

## Ordering Information :



## Choosing guide

Membrane	Typical application	Item No	Description	Pack
Nylon	water/organic phase samples filtration	SLFT045PTFESC	Syringeless Filter Devices, translucent	100
PTFE	chemical corrosive liquid filtration		housing with standard cap, PTFE, 0.45µm	
PVDF, CA	lower nonspecific protein medium analysis			
PES	the sample which needs low protein filtration			
PP	conventional filter and dissolve the matrix filtration			

## Technical Specifications

Dimensions	Equivalent in size to 12 x 32 mm vials		
Color	Translucent or amber/clear with blue cap		
Filtering capacity	0.4ml		
Materials of construction	Housing and cap: Polypropylene □ □ Filter media: Varies, as specified □ □ Septa: PTFE coated silicone rubber		
Maximum operating temperature	120°F; 50°C	Chamber hold-up volume after compression	50 µL