

Pre-Sterilized Syringe Filters

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MDI pre-sterilized syringe filters are available in pore sizes of 0.2 μ m and 0.45 μ m and several diameters to suit various applications for filtration in the laboratory.

Types Available

MDI offers a wide range of syringe filters with different sizes, pore sizes and membrane filter media such as:

- Polyethersulfone (PES)
- Nylon-66
- Hydrophilic PVDF

Sizes

- 4mm, 13mm, 25mm

Special Features

- Absolute retention efficiency
- Low protein binding
- Maximum product recovery
- High throughputs
- Extremely low extractables
- Heat sealed

Unique Performance Advantages

- Very low hold-up volumes
- Very low hand pressure, Maximum throughput
- Wide range for all types of samples
- 16 Channels for Maximum Flow Rate (Fig. A)
- Designed for Maximum Throughput (Fig. B)

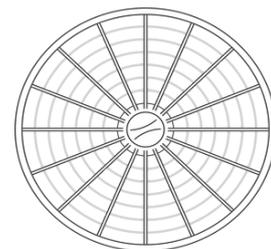


Figure. A

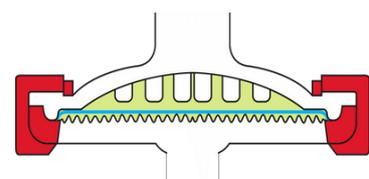


Figure. B

DST SYXXPSX2505L

Filter Selection

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DST SYXXPSX2505L

Product	Key Features	Type	Dia / Size	Applications
Polyethersulfone Membrane Syringe Filters	<ul style="list-style-type: none"> • Low protein binding • Wide pH compatibility • Very Low hold-up volumes 	SY4PL-S	4mm	Sterilization of high value additives such as growth hormones, vitamins, and antibiotics (<1ml)
		SY13PL-S	13mm	Sterilization/clarification of protein solutions and culture media (<10ml)
		SY25PL-S	25mm	Solutions, Culture media, and serum Sterilization/clarification of protein (<20ml)
Polyethersulfone Membrane Syringe Filters with Pre-filter	<ul style="list-style-type: none"> • Wide pH compatibility • Low protein binding • High throughputs 	SY13KG-S SY25KG-S	13mm 25mm	Sterilization/clarification of difficult to filter solutions such as pure serum and serum based culture media
Hydrophilic PVDF Membrane Syringe Filters	<ul style="list-style-type: none"> • Low protein binding • Very Low hold-up volumes 	SY4VF-S	4mm	Sterilization of high value additives such as growth hormones, vitamins, and antibiotics (<1ml)
		SY13VF-S	13mm	Sterilization/clarification of protein solutions and culture media (<10ml)
		SY25VF-S	25mm	Solutions, Culture media, and serum Sterilization/clarification of protein (<20ml)
Nylon 66 Membrane Syringe Filters	<ul style="list-style-type: none"> • Wide chemical compatibility • Low extractables • Very Low hold-up volumes 	SY4NN-S SY13NN-S SY25NN-S	4mm 13mm 25mm	For aqueous as well as organic samples

Specifications

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DST SYXXPSX2505L

Inlet/Outlet Connections

Inlet: Female luer-lock

Outlet: Male luer slip

Burst Pressure (13mm/25mm)

>14kg/cm²

Maximum Operating Temperature

55 °C

Maximum Operating Pressure

75 psi @ 25° C

Biosafety Passes

Passes the Biological Reactivity Tests, In Vivo for Class VI plastics as described in USP<88>

Cytotoxicity

Passes the Biological Reactivity Tests, In Vitro for Cytotoxicity as described in USP<87>

Fiber Release

Complies with USFDA CFR Title 21, Part 210.3(b)(6) and do not requires any initial flushing

Particle Release

The filtrate complies with USP<788> test for particulate matter in injections

Indirect Food Additives

The plastic housing material complies with the requirements of USFDA CFR Title 21 Part 177.1520

Oxidizable Matter

Passes test as per USP <1231>

Storage

It is recommended to keep the syringe filters:

- at clean and dry location
- away from direct heat sources at temperature below 50°C

Bubble Point

0.2 µm	≥ 50 psi (≥ 3.52 Kg/cm ²)
0.45 µm	≥ 30 psi (≥ 2.11 Kg/cm ²)

Typical Hold-up Volume (with air purge)

Filter Size	Hold up Volume
4mm	<5µl
13mm	<20µl
25mm	<50µl

Retention Efficiency

0.2 µm	LRV >10 ⁷ <i>B.diminuta</i> (ATCC 19146) per cm ² of filter area
0.45 µm	LRV >10 ⁷ <i>S. marcescens</i> (ATCC 14756) per cm ² of filter area

Recommended Sample Volume

Filter Size	Sample Volume
4mm	< 1 ml
13mm	< 10 ml
25mm	< 100 ml

Packaging

Standard Pack:

Pre-sterilized membrane syringe filters are individually packed in blister packs with peel off. The integrity of the package has been validated as per ASTM F 1929.

These individually packed filters are packed in boxes of 100 each specially designed for easy front access.

Pre-sterilized PES Membrane Syringe Filters Type SYPL-S

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DST SYXXPSX2505L

Description

MDI syringe filter type SYPL-S have PES membrane filter in a polypropylene housing. These syringe filters are used for filtration and sterilization of protein solutions, culture media and buffers. The low protein binding characteristics make these ideal for these applications, particularly where sample size is very small and recovery of protein of interest is sought.

MDI SYPL syringe filters provide absolute retention, very low hold up volumes and low protein binding while offering excellent throughputs. The filters are validated and assured for quality to ensure superior performance.

Pore Size

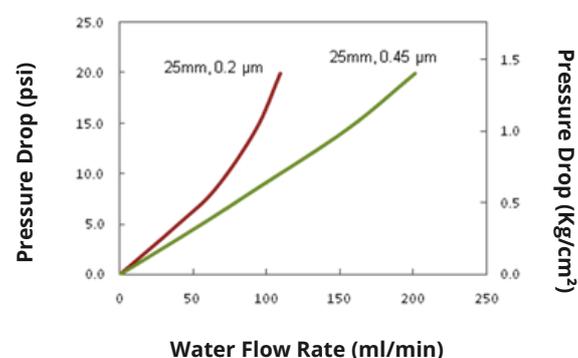
0.2 μm , 0.45 μm

Materials of Construction

Housing	Polypropylene
Membrane	Polyethersulfone



Typical Water Flow Rates



Applications

- Sterilization of high value additives such as hormones, vitamins and antibiotics
- Sterilization of protein solutions, culture media and buffers
- Sterilization of purified DNA

Ordering Information

Type		Size		Pore Size		Inlet/Outlet		XX	Sterility		Pack Size	
	Code	Diameter	Code		Code		Code			Code		Code
Pre-sterilized polyethersulfone membrane syringe filter	SYPL	4mm	01	0.2 μm	01	Female Luer Lock	M		Gamma Sterile	3	100	04
		13mm	03	0.45 μm	02	Male Luer Slip	N					
		25mm	06									

Example:

SYPL	06	01	MN	XX	3	04
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Pre-sterilized PES Membrane Syringe Filters Type SYKG-S

DATASHEET

DST SYXXPSX2505L

Description

MDI syringe filter type SYKG-S have Polyethersulfone membrane filter and a microglassfiber prefilter in polypropylene housing.

The microglassfiber prefilter provides excellent protection to the final membrane filter due to its high retention abilities for colloidal particles resulting in excellent throughputs specially for difficult to filter turbid solutions.

These syringe filters are used for filtration and sterilization of biological solutions, culture media and serum solutions.



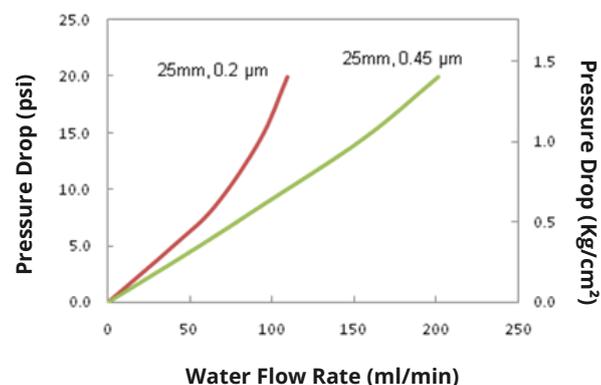
Pore Size

0.2 μm , 0.45 μm

Materials of Construction

Housing	Polypropylene
Pre-Filter	Microglassfiber
Membrane	Polyethersulfone

Typical Water Flow Rates



Applications

- Sterilization of biologicals
- Sterilization of culture media, sera, serum solutions and buffers

Ordering Information

Type		Size		Pore Size		Inlet/Outlet		XX	Sterility		Pack Size	
	Code	Diameter	Code		Code		Code			Code		Code
Pre-sterilized polyethersulfone membrane syringe filter with microglassfiber prefilter	SYKG	13mm	03	0.2 μm	01	Female Luer Lock	M		Gamma Sterile	3	100	04
		25mm	06	0.45 μm	02	Male Luer Slip	N					

Example:

SYKG	06	02	MN	XX	3	04
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Pre-sterilized PVDF Membrane Syringe Filters Type SYVF-S

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DST SYXXPSX2505L

Description

MDI syringe filters type SYVF-S incorporate a hydrophilic PVDF membrane filter in a polypropylene housing. These syringe filters are used for filtration and sterilization of protein solutions, culture media and buffers.

These filters are validated to provide absolute retention, very low hold up volumes and low protein binding while offering excellent throughputs.



Applications

- Sterilization of high value additives such as hormones, vitamins and antibiotics
- Sterilization of protein solutions, culture media and buffers
- Sterilization of purified DNA

Pore Size

0.2 µm, 0.45 µm

Materials of Construction

Housing	Polypropylene
Membrane	Hydrophilic PVDF

Ordering Information

Type		Size		Pore Size		Inlet/Outlet		XX	Sterility		Pack Size	
	Code	Diameter	Code		Code		Code			Code		Code
Pre-sterilized Polyvinylidene fluoride membrane syringe filter	SYVF	4mm	01	0.2 µm	01	Female Luer Lock	M		Gamma Sterile	3	100	04
		13mm	03	0.45 µm	02	Male Luer Slip	N					
		25mm	06									

Example:

SYVF	06	01	MN	XX	3	04
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Pre-sterilized Nylon-66 Membrane Syringe Filters Type- SYNN-S

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DST SYXXPSX2505L

Description

MDI Pre-sterilized Nylon membrane syringe filters are ideal for sterilization of solvents in the lab.

These filters offer absolute retention along with wide chemical compatibility, extremely low extractables and excellent flow rates.



Pore Size

0.2 μm , 0.45 μm , 5 μm

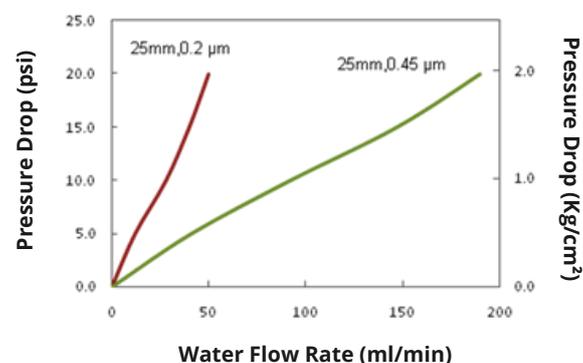
Materials of Construction

Housing	Polypropylene
Membrane	Nylon-66

Applications

- Sterile Filtration of DMSO for Cryo-preservation of stem cells
- Special 5 μm filters for particulate removal from pharmaceutical parenterals just before administration

Typical Water Flow Rates



Ordering Information

Type		Size		Pore Size		Inlet/Outlet		XX	Sterility		Pack Size	
	Code	Diameter	Code		Code		Code			Code		Code
Pre-sterilized Nylon-66 Membrane Syringe Filter	SYNN	4mm	01	0.2 μm	01	Female Luer Lock	M		Gamma Sterile	3	100	04
		13mm	03	0.45 μm	02	Male Luer Slip	N					
		25mm	06	5 μm	07							

Example:

SYNN	03	02	MN	XX	3	04
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