

Vacuum Filtration Systems

Application

MCE: Particle analysis of general media and aqueous solutions. HPLC sample preparation.

PVDF: Used in aqueous solutions and most solvents include strong non-polar solvents. Very suitable for HPLC, GC preparation.

PES: For sterilization filtration of general and aqueous solutions, polar or medium polar solvents neutral aqueous solutions, laboratory biological fluids, media additives.

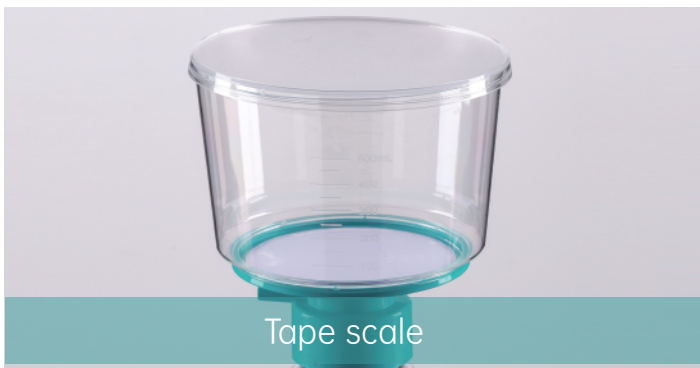
CA: Can be tolerated by most alcohols and oils, suitable for aqueous solution buffer, serum and culture medium for filtration, mobile phase filtration by HPLC.

Main Customers

- Biological products factory, pharmaceutical factory, food factory
- Cell therapy company, biotechnology research and development enterprise, laboratory technology service enterprise, purification direction. peptide drug research and development enterprise. antibody pharmaceutical enterprise
- Government health department, life science Research institutes. research institutes, medical schools (laboratory with basic research), etc.



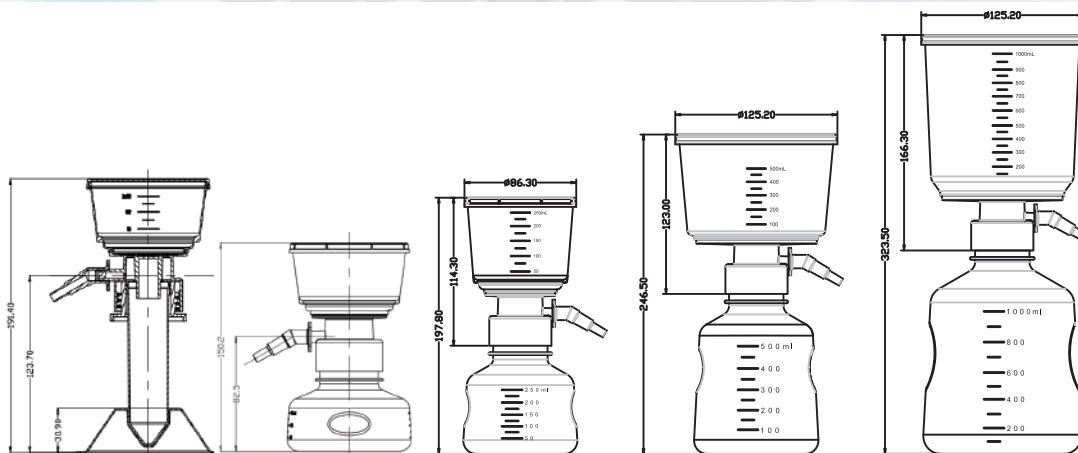
Filter tip



Tape scale



Vacuum Filtration System



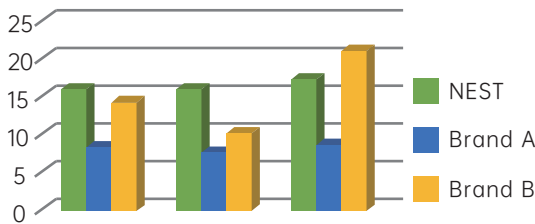
NEST Disposable Vacuum Filtration System is useful for large volume sample separation and sterilization of tissue culture media and other biological buffers. The units include PES or PVDF membrane filters with graduated filter tops made with polystyrene, and acrylonitrile-butadiene-styrene necks with polystyrene receiving bottles. A separated sterile polyethylene cap is included. Filtration system is manufactured from raw material of high transparency polystyrene (PS) in three different volumes: 250 mL / 500 mL / 1000 mL. They are available in three styles: complete filter/storage bottle systems, bottle top filters, and receiving bottles only.

● Features

- High flow rates and flux.
- If the package is damaged, please do not use.
- Low protein binding and low chemical extractability.
- Pore size: 0.22 μm.
- Non-Pyrogenic, DNase/Rnase free.
- Sterilized by E-beam, SAL=10⁻⁶.
- Individually packaged in sterile bag.
- No endotoxin, no pyrogen.
- For laboratory use only.

Type	Hydrophilicity	Features	Application Directions	Cautions
PES	Hydrophilic	Low protein adsorption, high flow rate, wide PH range, high chemical compatibility, good heat resistance.	For general culture media and aqueous solutions, polar or middle-polar solvents, neutral aqueous solutions.	Not applicable for chloroform, esters, amides and strong acids or strong bases.
PVDF	Hydrophilic	Wide practicability, good oxidation resistance and heat resistance.	May be used for aqueous solutions and most solvents, including strong non-polar solvents. Ideal for preparations of HPLC and GC.	Not applicable for strong acids and bases.
MCE	Hydrophilic	Strong chemical compatibility and low protein adsorption, the optimum pH range is 3-6.	Used for particle analysis of general culture media and aqueous solutions. HPLC sample preparation.	The set should not be used for filtration of ethanol and alkaline solutions. The working temperature should no°Ct .be over 40
CA	Hydrophilic	High flow rate and heat stability as well as very low adsorption, stable within the range of pH 4-8.	It may resist most alcohols and oils, and is suitable for sterling filtration of aqueous solutions, buffers, serum and culture media, as well as filtration of the moving phase of HPLCD.	The CA membrane may accommodate a smaller volume of buffer since it has low hydrophilia.

● Comparison of the flow rate of different brands of vacuum filters



	DMEM+10%FBs	RPMI1640+10%FBs	TSB
NEST	16	16	17.39
Brand A	8.33	7.69	8.7
Brand B	14.29	10.26	21.1

● Vacuum Filtration System

Volume (μL)	Pore Density (μm)	Vacuum Filtration Systems (Sterile)1/Pack, 12/Case				Bottle Top Vacuum Filter (Sterile)1/Pack, 24/Case			
		PES Membrane	PVDF Membrane	MCE Membrane	CA Membrane	PES Membrane	PVDF Membrane	MCE Membrane	CA Membrane
50	0.10	347002	347102	347202	347302	347012	347112	347212	347312
	0.22	347001	347101	347201	347301	347011	347111	347211	347311
	0.45	347003	347103	347203	347303	347013	347113	347213	347313
150	0.10	346002	346102	346202	346302	346012	346112	346212	346312
	0.22	346001	346101	346201	346301	346011	346111	346211	346311
	0.45	346003	346103	346203	346303	346013	346113	346213	346313
250	0.10	342002	342102	342202	342302	342012	342112	342212	342312
	0.22	342001	342101	342201	342301	342011	342111	342211	342311
	0.45	342003	342103	342203	342303	342013	342113	342213	342313
500	0.10	343002	343102	343202	343302	343012	343112	343212	343312
	0.22	343001	343101	343201	343301	343011	343111	343211	343311
	0.45	343003	343103	343203	343303	343013	343113	343213	343313
1000	0.10	344002	344102	344202	344302	344012	344112	344212	344312
	0.22	344001	344101	344201	344301	344011	344111	344211	344311
	0.45	344003	344103	344203	344303	344013	344113	344213	344313

● Polystyrene Storage Bottles (Sterile)

Volume (µL)	Size (mm)			Packaging		Cat.No.
	Height	Mouth diameter	Base diameter	/Pack	/Case	
150	80	42	89.15	1	24	346021
250	105		88	1	24	342021
500	145		96	1	24	343021
1000	178.5		122	1	12	344021

Warning

- Do not use plastic bottles, glass bottles, flasks or containers that are not designed for filtration and cannot withstand negative pressure to connect to the upper cup .
- Not suitable for culture flasks larger than 2L.
- Working temperature: 4-37°C.
- Working pressure: 0.03-0.06Mpa, if there is foam, please reduce pressure appropriately.
- Tighten the upper cup and bottle mouth by hand, but do not over tighten.
- Personal protective equipment must be used at all times, and goggles must be worn when using vacuum equipment.
- Work on the aseptic operating table.
- It is not recommended to recycle any hazardous substances, hazardous substances, wastes or biochemically hazardous materials.
- PES, PVDF, and CA membranes are not compatible with acetonitrile (ACN).

Adaptor for Vaccum Filtration System



● Introduction

NEST Adaptor for Vaccum Filtration System is designed to seamlessly connect the upper cup and the lower container with a 38mm mouth. This meets the filtration needs of customers who use containers of this size.

● Features

- It makes a 38mm lower container a viable alternative to the regular one with 45mm mouth for filtration, thus minimizing the risk of contamination during liquid transfer.
- Validated by the Sealing Performance Test, ensuring no leakage even with the additional adaptor.

Name	Packaging	Cat.NO.
Adaptor for Vaccum Filtration System	1 pc/pk, 10 pks/cs	334591

Precautions: It is important to use a lower container that is rigid and has thick walls, because thin-walled containers run a certain risk of depression during negative pressure filtration.