Membranes and filters housing selection

Regenerated Cellulose (RC)

Regenerated Cellulose is an hydrophilic, solvent resistant, low protein binding membrane. RC membrane is ideal for removing particulates from HPLC samples, prior to injection. This membrane is compatible with all HPLC solvents, and can be utilized for particle removal and de-gassing of these solvents. RC membranes are also compatible with aqueous solutions in the pH range of 3 to 12. Extractables with water are less than 1%. Regenerated Cellulose membranes exhibit low non-specific adsorption, thus they are well suited for filtration of biological samples, where maximum recovery of protein is important. When used with a glass pre filter in the same housing, this membrane is ideal for filtration of tissue culture media, as well as general biological sample filtration. RC membranes can be sterilized by gamma radiation, autoclaving, ethylene oxide, or dry heat.

Cellulose Esters (MEC)

Cellulose Esters is a very low protein binding membrane that is ideal for aqueous based samples. MEC membranes are excellent choice when maximum protein recovery in the filtrate is critical. Laboratory studies show that MEC membranes bind less protein than PVDF or Polysulfone membranes. When used with a glass pre-filter in the same housing, these membranes are ideal for filtration of tissue culture media and sensitive biological samples. The pre-filter increases yield.

Nylon and nylon low Ext.

New low extractable Nylon membranes combine the solvent resistance of Nylon with a membrane that exhibits very low extractables. Nylon is commonly used for general laboratory filtration, and filtration of HPLC samples prior to injection. Nylon binds protein, and should not be used when maximum protein recovery is important. Nylon can be sterilized by autoclaving at 120°C, gamma radiation or ethylene oxide.

Polypropylene (PP)

Polypropylene membrane is a hydrophilic membrane that exhibits a wide range of chemical compatibility to organic solvents. PP membranes are a good choice for filtration of HPLC samples when performing protein analysis by chromatography. In addition to being highly solvent resistant, these membranes are low non-specific adsorbing membranes, which results in maximum protein recovery for critical analysis. PP membranes are also well suited for biological sample filtration.

Glass Media

Glass Media membranes are commonly used as pre filters in many filtration devices. Specialized glass membranes are used for DNA recovery and clean-up

PVDF

PVDF (polyvinylidene difluoride) is a hydrophilic, solvent resistant membrane that exhibits low levels of UV absorbing extractables. PVDF is useful for HPLC sample filtration, as well as general biological filtration. PVDF is considered to be one of the low protein binding membranes.

Teflon® (PTFE)

Teflon® (Polytetrafluoroethylene) is hydrophobic, and chemically resistant to all solvents, acids and bases. PTFE, membrane does not impart any extractables to the filtrate. PTFE is an ideal membrane for transducer protectors, since it blocks water vapor. PTFE is ideal for filtering and de-gassing chromatography solvents.

Filter housing selection

Membrane	Abbreviation	Hydrophobic	Hydrophilic
Polyvinylidene Difluoride	PVDF	X	
Glass Fiber	GF		X
Polypropylene	PP	X	
Polyethylene	PE	X	
Teflon	PTFE	X	
Polyethersulfone	PES		X
Cellulose Acetate	CA		X
Mixed Cellulose Esters	MCE		X
Nitrocellulose	NC		X
Polycarbonate	PC		X
Nylon	NY	X	

Polypropylene (PP)

Polypropylene housings are solvent resistant and exhibit low extractables. PP housings combined with low extractable Nylon, Regenerated Cellulose, or PTFE membrane are ideal for filtering solvents and samples for chromatography.

Chemical	Nylon	PTFE	PVDF	MEC/CE	RC	PP
ACIDS						
Acetic, Glacial	LC	C	C	NC	C	C
Acetic, 25 %	C	C	C	C	C	C
Hydrochloric, Concentrated	NC	C	C	NC	NC	C
Hydrochloric, 25 %	NC	C	C	NC	NC	C
Sulfuric, Concentrated	NC	C	NC	NC	NC	C
Sulfuric, 25 %	NC	C	C	NC	LC	C
Nitric, Concentrated	NC	C	C	NC	NC	C
Nitric, 25 %	NC	C	C	NC	NC	C
Phosphoric, 25 %	NC	C	ND	C	LC	C
Formic, 25 %	NC	C	ND	LC	C	C
Trichloroacetic, 10 %	NC	C	ND	C	C	C
ALKALIES						
Ammonium Hydroxide, 25 %	C	C	LC	C	LC	C
Sodium Hydroxide, 3 Normal	C	C	C	NC	LC	C
ALCOHOLS						
Methanol, 98 %	C	C	C	C	C	C
Ethanol, 98 %	C	C	C	C	C	C
Ethanol, 70 %	LC	C	C	LC	C	C
Isopropanol, n-Propanol	C	C	C	C	C	C
Amyl alcohol, Butanol	C	C	C	C	C	C
Benzyl Alcohol	C	C	C	LC	C	C
Ethylene glycol	C	C	C	C	C	C
Propylene glycol	C	C	C	LC	C	C
Glycerol	C	C	C	C	C	C
HYDROCARBONS						
Hexane, Xylene	C	C	C	C	C	NC
Toluene, benzene	C	C	C	C	C	NC
Kerosene, Gasoline	C	C	C	C	C	LC
Tetrakin, Decalin	ND	C	C	C	C	ND
HALOGENATED HYDROCARBONS						
Methylene Chloride	LC	C	C	NC	C	LC
Chloroform	C	C	C	NC	C	LC
Trichloroethylene	C	C	C	C	C	LC
Monochlorobenzene, Freon	C	C	C	C	C	C
Carbon Tetrachloride	C	C	C	LC	C	LC
KETONES						
Acetone, Cyclohexanone	C	C	C	NC	C	C
Methyl Ethyl Ketone	C	C	LC	LC	C	LC
Isopropylacetone	C	C	NC	C	C	ND
Methyl Isobutyl Ketone	ND	C	LC	ND	C	LC
ESTERS						
Ethyl Acetate & Methyl Acetate	C	C	C	NC	C	LC
Amyl, Propyl & Butyl AcetateC	C	ND	LC	C	LC	
Propylene Glycol Acetate	ND	C	ND	NC	C	C
Methyl Cellosolve Acetate	ND	C	ND	LC	C	ND
Benzyl Benzoate	C	C	ND	C	C	ND
Isopropyl Myristate	C	C	ND	C	C	ND
Tricresyl Phosphate	ND	C	ND	C	C	ND
OXIDES - ETHERS						
Ethyl Ether	C	C	C	C	C	LC
Dioxane & Tetrahydrofuran	C	C	LC	NC	C	C
Dimethylsulfoxide (DMSO)	C	C	NC	NC	C	C
Isopropyl Ether	ND	C	C	C	C	C
SOLVENTS WITH NITROGEN						
Dimethyl Formamide	LC	C	NC	NC	LC	C
Diethylacetamide	C	C	ND	NC	C	ND
Triethanolamine	C	C	ND	C	C	ND
Aniline	ND	C	ND	NC	C	ND
Pyridine	C	C	C	NC	C	LC
Acetonitrile	C	C	C	NC	C	LC
MISCELLANEOUS						
Phenol, Aqueous, 10 %	ND	C	LC	NC	NC	C
Formaldehyde Solution, 30 %	C	C	C	C	LC	C
Hydrogen Peroxide, 30 %	C	C	ND	C	C	ND
Silicone Oil & Mineral Oil	ND	C	C	C	C	C
Pyridine	C	C	C	NC	C	LC

C : Compatible
LC : Limited Compatibility - Membrane Swells and Shrinks
NC : Not Compatible
ND : No data available

PTFE : Teflon® - PVDF : Polyvinylidene Difluoride
MEC /CE: Cellulose Esters -
RC : Regenerated Cellulose - PP : polypropylene

Separation techniques (Proteins)

Filtration

Syringe filters

Regenerated Cellulose (RC)

Cat.#	I.D.	Pore size	Prefilter	Housing	Qty
T38070	4 mm	0.2 µm		PP	100 u
T38060	4 mm	0.45 µm		PP	100 u
T38090	13 mm	0.2 µm		PP	100 u
T38080	13 mm	0.45 µm		PP	100 u
T38110	25 mm	0.2 µm		PP	100 u
T38111	25 mm	0.2 µm		PP	500 u
T38100	25 mm	0.45 µm		PP	100 u
T38101	25 mm	0.45 µm		PP	500 u
U54650	25 mm	0.2 µm	GF	PP	100 u
U54660	25 mm	0.45 µm	GF	PP	100 u

Cellulose Esters (MEC/CE)

P00600	4 mm	0.2 µm		PP	100 u
P00610	4 mm	0.45 µm		PP	100 u
P00540	13 mm	0.2 µm		PP	100 u
P00550	13 mm	0.45 µm		PP	100 u
N11750	25 mm	0.2 µm		PP	100 u
N11751	25 mm	0.2 µm		PP	500 u
N11760	25 mm	0.45 µm		PP	100 u
N11761	25 mm	0.45 µm		PP	500 u
U54630	25 mm	0.2 µm	GF	PP	100 u
U54640	25 mm	0.45 µm	GF	PP	100 u

Nylon

P00620	4 mm	0.2 µm		PP	100 u
P00630	4 mm	0.45 µm		PP	100 u
P00500	13 mm	0.20 µm		PP	100 u
P00510	13 mm	0.45 µm		PP	100 u
N11410	25 mm	0.20 µm		PP	100 u
N11411	25 mm	0.20 µm		PP	500 u
N11720	25 mm	0.45 µm		PP	100 u
N11721	25 mm	0.45 µm		PP	500 u
U54670	25 mm	0.20 µm	GF	PP	100 u
U54680	25 mm	0.45 µm	GF	PP	100 u

Nylon low ext.

U54770	13 mm	0.20 µm		PP	100 u
U54780	13 mm	0.45 µm		PP	100 u
U54790	25 mm	0.20 µm		PP	100 u
U54791	25 mm	0.20 µm		PP	500 u
U54800	25 mm	0.45 µm		PP	100 u
U54801	25 mm	0.45 µm		PP	500 u

Polypropylene (PP)

P00640	4 mm	0.2 µm		PP	100 u
P00650	4 mm	0.45 µm		PP	100 u
P00580	13 mm	0.20 µm		PP	100 u
P00590	13 mm	0.45 µm		PP	100 u
N11790	25 mm	0.20 µm		PP	100 u
N11791	25 mm	0.20 µm		PP	500 u
N11800	25 mm	0.45 µm		PP	100 u
N11801	25 mm	0.45 µm		PP	500 u
U54690	25 mm	0.20 µm	GF	PP	100 u
U54700	25 mm	0.45 µm	GF	PP	100 u

PVDF

P00680	4 mm	0.2 µm		PP	100 u
P00690	4 mm	0.45 µm		PP	100 u
P00560	13 mm	0.20 µm		PP	100 u
P00570	13 mm	0.45 µm		PP	100 u
N11770	25 mm	0.20 µm		PP	100 u
N11771	25 mm	0.20 µm		PP	500 u
N11780	25 mm	0.45 µm		PP	100 u
N11781	25 mm	0.45 µm		PP	500 u
U54730	25 mm	0.20 µm		PP	100 u
U54740	25 mm	0.45 µm		PP	100 u

Tefflon (PTFE)

P00660	4 mm	0.20 µm		PP	100 u
P00670	4 mm	0.45 µm		PP	100 u
P00520	13 mm	0.20 µm		PP	100 u
P00530	13 mm	0.45 µm		PP	100 u
N11730	25 mm	0.20 µm		PP	100 u
N11731	25 mm	0.20 µm		PP	500 u
N11740	25 mm	0.45 µm		PP	100 u
N11741	25 mm	0.45 µm		PP	500 u
U54710	25 mm	0.20 µm	GF	PP	100 u
U54720	25 mm	0.45 µm	GF	PP	100 u

Filtration plates

We offer a very large range of filtration plates in term of size, number of wells, well shape, volume, filter material. We propose also 2 kind of outlet, short and long. Depending on the interest of your filtrate one or the other has to be used. This large choice allows any kind of applications : binding, desalting, purification, Solid Phase Extraction… If ever you do not find the filter plate you need in term of design, filter, volume, ask us.

- Natural Polypropylene — Low Binding
- Patented Design — Flexible Design
- Long and short outlet — Collect or Waste
- Variety of Filters — No Limitations
- 96 & 384 wells — 300µl to 2000µl

96 well Ultrafiltration Filter Bottom

Uniquely constructed Ultra-filtration filter plates, which optimizes high throughput processing steps including concentrate, desalt proteins, purify peptides, oligos, DNA and RNA, recovery of oligos, proteins and RNA from polyacrylamide gels. Featuring polypropylene construction for chemical resistance and low binding with a 400µl working volume. The patent pending process allows for no cross talk and superior recovery performance. Available in 10 kDa and 30 kDa MWCO.

Applications :

- Size exclusion
- Concentration, purification, and desalt proteins, peptides, oligos, DNA, and RNA
- Recover proteins, oligos, and RNA from polyacrylamide gels

Dimensions :

- Length : 127.76 mm
- Width : 85.47 mm
- Height : 19.74 mm
- Well Size : 6.24 mm
- Max Volume : 440 µL
- Filter Area : 19.35 mm^2

Products	Cat.#	Qty
Membrane : PolyEtherSulfone (PES) 10K, Short outlet 400µL	**F20064**	25 units
Membrane : PolyEtherSulfone (PES) 30K, Short outlet 400µL	**F20065**	25 units

Filter Bottom

Features :

- Natural Polypropylene
- Chemical Resistant
- Biologically Inert
- Low Binding
- Versatile Design
- Long & Short outlet Directors
- Variety of Filtration Media
- Robotic Friendly
- Bar-Coding Available
- Fits Standard Vacuum Manifolds
- 96 wells available in 300µl, 400µl, 800µl and 2ml well volumes
- 48 wells available in 5ml and 7.5ml well volume
- 384 wells available in 140µl well volume
- Custom Configurations

96 wells plates - Applications by Filter type

	Application	Outlet director	Volume/ Well (µl)	Cat.#	Qty
Glass Fiber 0.7 µm filters					
High Biomolecule Binding	DNA Binding Lysate Clarification	Long	300 800	**BM4710** **BM4711** **AA1760** **AA1761**	5 u 25 u 5 u 25 u
Glass Fiber 1.0 µm filters					
High Biomolecule Binding	Cell homogenates, crude DNA Binding DNA Isolation DNA/RNA Purification PCR clean up Plasmid Minipreps Recovering DNA from gel slices Reverse transcriptase Sample Clean Up	Short Long	300 800 300 800 	**BM4350** **BM4351** **BM4580** **BM4581** **BM4640** **BM4641** **AA1780** **AA1781**	5 u 25 u 5 u 25 u 5 u 25 u 5 u 25 u
Glass Fiber 1.2 µm filters					
High Biomolecule Binding	M13 phage preps Thymidine Uptake Cell homogenates, crude Cell fragments/membranes Cytotoxic/ Cell Proliferation Signal transduction Mammalian Cells Capture	Short Long	300 800 300 800 	**BM4670** **BM4671** **BM4680** **BM4681** **BM4690** **BM4691** **BH5520** **BH5521**	5 u 25 u 5 u 25 u 5 u 25 u 5 u 25 u
Polypropylene 0.45 µm filters					
Low Biomolecule Binding Solvent Resistance	YAC (Yeast Cloning Assays) Bacterial DNA prep for PCR Alumina Cell fragments/membranes Whole Cells Protease assays Phosphodiesterase Antibody neutralization Mammalian Cells Capture Calcium uptake Dual assay : Ca + receptor Microsomes Solid Phase Radioimmunoassays	Short Long	300 800 300 800 	**BM4720** **BM4721** **BM4730** **BM4731** **BM4740** **BM4741** **BM4750** **BM4751**	5 u 25 u 5 u 25 u 5 u 25 u 5 u 25 u
Hydrophilic PVDF 0.45 µm filters					
Low Biomolecule Binding	YAC (Yeast Cloning Assays) DNA elution from agarose gel Dye Terminator Clean Up Sequencing Reaction Clean Up DNA/RNA Purification Ni-Nta Affinity Bead Avidin/biotin bead Chromatography beads/resins Purified cloned receptors Cell Based Receptor Binding Signal transduction Phosphodiesterase Protein or nucleic acid desalt Cell membrane Neonatal Screening Vesicle Assays	Short Long	300 800 300 800 	**BM4760** **BM4761** **BM4790** **BM4791** **BM4800** **BM4801** **U84900** **U84901**	5 u 25 u 5 u 25 u 5 u 25 u 5 u 25 u

	Application	Outlet director	Volume Well (µl)	Cat.#	Qty
UH-PE 25 µm Filters					
Low Biomolecule Binding	Dye Terminator Removal Dye Terminator Clean Up Sequencing Reaction Clean Up	Short	300	**BM4820**	5 u
				BM4821	25 u
			800	**BM4830**	5 u
				BM4831	25 u
		Long	300	**BM4840**	5 u
				BM4841	25 u
			800	**BM4850**	5 u
				BM4851	25 u

384 wells plates - Applications by Filter type

Glass Fiber 0.7 µm filters					
High Biomolecule Binding	DNA Binding Lysate Clarification	Short	125	**BM4990**	10 u
		Long	125	**BM5010**	10 u
Glass Fiber 1.2 µm filters					
High Biomolecule Binding	M13 phage preps Thymidine Uptake Cell homogenates, crude Cell fragments/membranes Cytotoxic/ Cell Proliferation Signal transduction Mammalian Cells Capture	Short	125	**BM4980**	10 u
		Long	125	**BM5000**	10 u

This chart is only to give an idea of the possible plates applications and to help you in the filter plate choose.

Collection plates

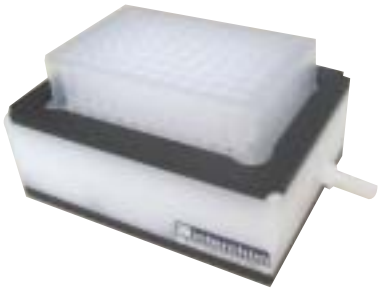
The plates to recover your sample after filtration.

Made of polypropylene is the insurance of a high chemical and heat resistance.

Description		Cat.#
UptiPlate Collection 96 wells square	350 µl wells	**U90360**
UptiPlate Collection 96 wells square	1 ml wells	**U90370**
UptiPlate Collection 96 wells square	2 ml wells	**U90380**
UptiPlate Collection 384 wells square	50 µl wells	**U90360**
UptiPlate Collection 384 wells square	150 µl wells	**U90360**

Soft cover santoprene to avoid any linkage

Soft Cover for 350 µl, 1ml and 2 ml for 96 square wells	**AP3130**
Soft Cover pierceable for 350 µl, 1ml and 2 ml for 96 square wells	**BD7731**



Vacuum Manifold

Two possibilities exist to perform filtration on plates filtrations : apply a pressure on the top of the filter or create a depression on the bottom.
The second method is our method of choice. For it, we offer one vacuum manifold.

Well Plate Vacuum Manifold

Without gauge it is usable with our 48, 96 and 384 well plates.

- Easy access to filtrate
- Design for robot handling

All of our collection plates are usable with this model.

Description	Cat.#
Well Plate Vacuum Manifold 48-96-384 wells with gauge	**AN1530**
Well Plate Vacuum Manifold replacement gasket	**BM4880**
Well Plate Vacuum Manifold Gauge	**BM4890**
Well Plate Vacuum Manifold O-Rings replacement	**BM4900**
Well Plate Vacuum Manifold 69 mm adapter for 48 collection well plates	**BM4910**
Well Plate Vacuum Manifold 100 mm adapter for 48 collection well plates	**BM4930**
Well Plate Vacuum Manifold without gauge for 96 wells only	**BM4940**

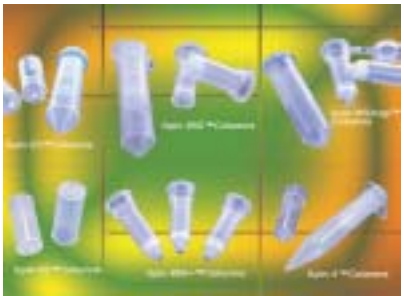
Vacuum pump with gauge

Our vacuum pump with PTFE membrane is equipped with a gauge. Thanks to it, you adjust the vacuum you need and the sample are filtrate regularly and smoothly. This ensure a perfect filtration.

Feature :

- PTFE membrane
- Flow rate : 30 l/min
- Lower pressure : 100 mbar

Description	Cat.#
Vacuum pump with gauge	**BN0530**



Filtration - Ultra-Filtration - Devices

Centrifugal filtration : one of the easiest and quickest way to filtrate.

The centrifugal filtration devices from the micro volumes (50 µl) up to the largest one (50 ml).

We are offering 6 different spin filters of different shapes and sizes, and more than 8 different filtration media. Their combination gives the possibility to filtrate any kind of samples.
The columns consist of an external body (or receiver)and an inside spin column. Both of them are made of FDA Polypropylene to eliminate sample contamination.

The filtration media are classically in 0.2 mu and 0.45 mu and made of Nylon, PTFE, Cellulose Acetate, Polypropylene, Nitrocellulose, Glass Fiber, Filter paper, PE Frit material. On request we offer any kind of material as filtration media : membrane filtration and frits of any kind of porosity.

Ask us for your needs, we design your filtration device.

Device :	Spin-850™	Spin-850+™	Spin-850cap™	Spin-4™	Spin-23™	Spin-25™
Vol. Capacity :	850 µl	850 µl	850 µl	4 ml	23 ml	25 ml
Rec. Centrifuge Force :	10 000 g	10 000 g	10 000 g	5 000 g	2 500 g	2 500 g
Rec. Tube :	1.9/2.0 ml	1.9/2.0 ml	1.9/2.0 ml capless	12 ml or 15 ml	50 ml	50 ml
Centrifuge :	Micro	Micro	Micro	Bench top/floor model	50 ml Rotor	50 ml Rotor
Materials of Housing :	Polypropylene	Polypropylene	Polypropylene	Polypropylene	Polypropylene	Polypropylene
Effective Filtration Area :	0.62 cm^2	0.62 cm^2	0.62 cm^2	0.8 cm^2	1.1 cm^2	1.1 cm^2
Membrane Diameter :	7.55 mm	7,55 mm	7,55 mm	12.65 mm	24.35 mm	24.35 mm
Dimensions : Length	23.65 mm	29.82 mm	29.82 mm	44.59 mm	60.32 mm	60.0 mm
Body OD	8.65 mm	8.53 mm	8.53 mm	13.10 mm	25.75 mm	25.30 mm

Spin-850™ Columns

Disposable centrifugal spin filter for sample volumes up to 850 µL

- Unique frosted area for marking and labelling
- Flat Bottom for delicate membranes
- Ideal for small volume sample filtration and purification
- Works with all commercially available receiver tubes

Product Specifications :

Volume Capacity :	850 µl
Max, Centrifuge Force :	10 000 g
Receiver/Collection Tubes :	1.5 ml, 1.9 ml, 2.0 ml
Centrifuge :	Standard lab micro centrifuge
Housing Material :	FDA Grade Polypropylene
Effective Filtration Area :	0.62 cm^2
Membrane Diameter :	7.06 mm
Dimensions :	
Length :	23.65 mm
Width :	Body OD 8.65 mm
ID :	7.68 mm at top
Colors :	Various color available

Separation techniques (Proteins)

Filtration

Spin-850+™ Columns

Disposable centrifugal spin filter for sample volumes up to 1 ml

- Unique frosted area for marking and labeling
- Various custom formats available
- Ideal for small volume sample filtration and purification
- Unique luer tip provides fast flow rates and sample direction
- Male luer tip works with standard female luer vacuum manifolds and adapters
- Works with all commercially available receiver tubes

Product Specifications :

Volume Capacity :	1.0 ml
Max, Centrifuge Force :	10000 g
Receiver/Collection Tubes :	1.9 ml, 2.0 ml
Centrifuge :	Standard lab micro centrifuge
Housing Material :	FDA Grade Polypropylene
Effective Filtration Area :	0.62 cm^2
Membrane Diameter :	7.55 mm

Dimensions :

Length :	29.82 mm
Width :	Body OD 8.53 mm
ID :	7.50 mm
Colors :	Various color available

Spin-850cap™ Columns

Disposable centrifugal spin filter with cap for sample volumes up to 1 ml

- Attached cap eliminates risk of sample loss
- Unique frosted area for marking and labeling
- Various custom formats available
- Ideal for small volume sample filtration and purification
- Unique luer tip provides fast flow rates and sample direction
- Male luer tip works with standard female luer vacuum manifolds and adapters
- Works with all commercially available receiver tubes

Product Specifications :

Volume Capacity :	1.0ml
Max, Centrifuge Force :	10000 g
Receiver/Collection Tubes :	1.9 ml, 2.0 ml Cappless
Centrifuge :	Standard lab micro centrifuge
Housing Material :	FDA Grade Polypropylene
Effective Filtration Area :	0.62 cm^2
Membrane Diameter :	7.55 mm

Dimensions :

Length :	29.82 mm
Width :	Body OD 8.53 mm
ID :	7.50 mm
Colors :	Various color available

Ask us for your needs, we design your filtration device.

Spin-4™ Columns

Midi-Spin Device

Disposable centrifugal spin filter for sample volumes up to 4 ml

- Unique frosted area for marking and labeling
- Various custom formats available
- Ideal for mid volume sample filtration and purification
- Unique luer tip provides fast flow rates and sample direction

Product Specifications :

Volume Capacity :	4.0 ml
Max, Centrifuge Force :	5 000 g
Receiver/Collection Tubes :	5.0 ml, 12.0 ml, 15.0 ml
Centrifuge :	Bench top/floor model
Housing Material :	FDA Grade Polypropylene
Effective Filtration Area :	0.8 cm^2
Membrane Diameter :	12.65 mm

Dimensions :

Length :	44.59 mm
Width :	Body OD 13.10 mm
ID :	12.60 mm
Colors :	Various color available

Spin-23™ Columns

Disposable centrifugal spin filter for sample volumes up to 23 ml

- Unique frosted area for marking and labeling
- Various custom formats available
- Male luer for vacuum filtration
- Ideal for large volume sample filtration and purification
- Works with all commercially available 50ml receiver tubes

Product Specifications :

Volume Capacity :	23.0ml
Max, Centrifuge Force :	2 500 g
Receiver/Collection Tubes :	50 ml
Centrifuge :	50 ml Rotor
Housing Material :	FDA Grade Polypropylene
Effective Filtration Area :	1.1 cm^2
Membrane Diameter :	24.35 mm

Dimensions :

Length :	60.32 mm
Width :	Body OD 25.75 mm
ID :	24.30 mm
Colors :	Various color available

Ask us for your needs, we design your filtration device.

Spin-25™ Columns

Disposable centrifugal spin filter for sample volumes up to 25 ml

- Maxi Size centrifugal device
- Unique frosted area for marking and labeling
- Various custom formats available
- Ideal for large volume sample filtration and purification
- Works with all commercially available 50ml receiver tubes

Product Specifications :

Volume Capacity :	25.0 ml
Max, Centrifuge Force :	2 500 g
Receiver/Collection Tubes :	50 ml
Centrifuge :	50 ml Rotor
Housing Material :	FDA Grade Polypropylene
Effective Filtration Area :	1.1 cm^2
Membrane Diameter :	24.35 mm
Dimensions :	
Length :	60.0 mm
Width :	Body OD 25.30 mm
ID :	24.30 mm
Colors :	Various color available

Ask us for your needs, we design your filtration device.

Spin Filters Agilent

These biofriendly sample filters can prevent unwanted clogging of Multiple Affinity Removal System devices and mRP-C18 columns, or any device subject to clogging with particles. See chapter C3.a "Specialty columns"

Features :

Broad sample application - can be used for removal of particulates from aqueous samples such as serum, plasma or protein samples diluted in aqueous buffers.
Standard membrane pore size - filters use 0.22 um pore-sized membranes to trap particles inside the tube.
Uses standard centrifuge - used with standard benchtop micro-centrifugation equipment.

Product	Cat.#	Qty
Spin Filters - 0.22 µm - cellulose acetate	**5185-5990**	25 u

Dead-end hollow fiber microfiltration

4 unique filters for faster microfiltration applications

- **MediaKap® Hollow Fiber Media Filters**
  Sterilize 5 liters of DMEM with 10% fetal bovine serum in 20 minutes or less.
  See page E15 (cell culture filtration)
- **DynaGard® Filter Tips**
  Unique streamline shape. With mixed ester cellulose fibers for aqueous solutions and polypropylene fibers for organic solutions.
- **CultureGard™ Media Feed Protection Filters**
  In-line filter that reduces the risk of contamination to continuous perfusion cultures.
  See page E15 (cell culture filtration)
- **MiniKap® Point-of-Use Microfiltration Filters**
  Contain DynaFibre® mixed cellulose ester membrane for greater surface areas in less space, higher flow rate and reduced hold-up volumes.

General Fiber Advantages :

- DynaFibre® Hollow Fiber Membrane
  - Biocompatible
  - Fast filtration, short processing times
  - Free passage of soluble protein
- Small Size
  - Less bulky than equivalent filters, saves shelf space
- Radiation Sterilized
  - No ETO residuals
- Hydrophilic Membrane
  - No surfactants needed, filter is shipped ready-to-use
- Tested and Approved
  - 100% integrity tested
  - Non-pyrogenic by LAL
  - All components meet USP XXI Class VI toxicity standards

DynaGard® Filter Tips

Unique streamline shape. With mixed ester cellulose fibers for aqueous solutions and polypropylene fibers for organic solutions

- Maximum sample recovery
- High flow rate and high throughput
- Inject or aspirate from a vial, ampule or test tube without the use of a needle
- Overall compact package occupies less shelf space

DynaGard® Syringe Filter Tips for aqueous filtration applications
DynaGard® unique streamline shape has been designed with the user's need in mind. Aspiration or injection of fluids into or out of vials, ampules, test tubes and other vessels is now easily accomplished. No additional needle is required to reach tight places.

Description type, surface, cut-off, other	Sterile units Cat.#	Qty	Standard units Cat.#	Qty
CE, 2,5 cm2, 0,2 µm	**238860**	50	**238560**	200
CE, 3,4 cm2, 0,2 µm with male Luer lock	**241500**	50	**240870**	100
CE, 5,5 cm2, 0,2 µm	**243880**	50	**243840**	100

DynaGard® Syringe Filter Tips for HPLC

Polypropylene hollow fiber membranes are ideal for HPLC sample preparation. The polypropylene membrane is compatible with all of the common chemicals used as organic and aqueous HPLC solvents. The use of hollow fibers in these filters allows us to produce filters with less hold-up volume than found in conventional disc-type filters. This permits either greater sample recovery (using similarly sized filters) or faster filtration (using a larger filter). The DynaGard® hollow fiber syringe filters fit over the tip of a standard luer-lock syringe. The 0.2 µm rated filters can also be used as sterilizing filters if they are autoclaved prior to use.

Description type, surface, cut-off, other	Sterile units Cat.#	Qty
PP, 3,9 cm2, 0.20 µm	**246000**	100
PP, 0,8 cm2, 0.20 µm	**246240**	200
PP, 3,9 cm2, 0.45 µm	**246840**	100
PP, 0,8 cm2, 0.45 µm	**252690**	200

MiniKap® Point-of-Use Microfiltration Filters

Contains DynaFibre® mixed ester cellulose membrane for greater surface areas in less space, higher flow rate and reduced hold-up volume

MiniKap® microfiltration modules are excellent for point-of-use applications such as laboratory water and gas filtration for air or nitrogen blow-off guns. MiniKap® filters contain DynaFibre® mixed ester cellulose membrane for greater surface areas in less space, higher flow rate, and reduced hold-up volumes. The small size makes it easy to use in laboratory applications. Multiple end fitting configurations are available so that the MiniKap® filter can be easily fitted to most air or water systems. MiniKap® filters are 0.2 µm rated and are naturally hydrophilic. The water filters (MK2M 210 V6S) have an hydrophobic vent which allows water to flow freely without trapping air in the housing (eliminating the need to manually vent the housing).

MiniKap® Filter Description	Cat.#	Qty
225 cm^2, female luer lock inlet/ male luer outlet, irradiated	**O37040**	6
225 cm^2, 1/4 inch NPT male inlet/outlet, non-sterile	**O37050**	6
Point-of-Use water filter autovent 225 cm^2	**O37060**	6
1/4 inch NPT male inlet/variable hose barb outlet, irradiated		6
225 cm^2, 1/4 inch to 3/8 inch (6-9 mm) variable hose barb inlet/outlet, irradiated	**O37070**	6
500 cm^2, 1/4 inch to 3/8 inch (6-9 mm) variable hose barb inlet/outlet, irradiated	**O37080**	6

UltraFiltration/DiaFiltration systems

Spectra/Por® Stirred Cells

Molecular/Por® Stirred Cell allow to concentrate, fractionate and diafiltrate biological fluids using Molecular/Por Ultrafiltration membranes.

Gas is injected in the cell if concentration is expected or buffer is injected by a peristaltic pump to diafiltrate/exchange buffer. The pressure (typically between 10 to 70 psi) pushes small MW molecules through the UltraFiltration (UF) membrane and can be blocked and released with a vent/relief valve. Higher pressure is used for lower MWCO and lower pressure for higher MWCO ; 50 psi for 10 kD and below, and 30 psi for 20 kD and above.
A magnetic stirrer inside the cell is designed to optimize sample agitation near UF membrane, that minimizes concentration polarization and allows rapid and effective filtration. The ultra-filtrate allows small solutes recovery, and on-line analysis to check ultrafiltration process. The concentrated sample is easily pipetted inside the cell.
The reservoir is made of clear polycarbonate, biologically inert wetted surface, with leak proof seals. Other parts are also of high quality for easy washing and long term use. Tubing is 1/4" x 1/8" (OD x ID).

Features :
- Volume sizes : 10, 70 and 400 mL
- Positive pressure driven filtration
- Prolonged effective filtration thanks continuous sample stirring
- Easy assembly and disassembly

Spectra/Por® Stirred Cells

Selection guide

	Small model (S-25-10)	Medium model (S-43-70)	Large model (S-76-400)
Cat.#	**O34300**	**473900**	**473910**
Capacity (mL)	10	70	400
Membrane Diameter (mm)	25	43	76
Filtration Area (cm^2)	4.0	12.5	38.5
Downstream Vol. (mL)	1.5	5	10
Min. stirred Vol. (mL)	1	2.5	10
Height x Dia. (cm)	14.6 x 7.0	16.5 x 7.6	23 x 12
Weight (kg)	0.34	0.35	0.9

Accessories

Description	Cat.#
S-25-10 Replacement Rod Kit	**O34310**
S-43-70 Replacement Rod Kit	**O34320**
S-76-400 Replacement Rod Kit	**O34360**
S-25-10 O-Ring Replacement	**S49420**
S-25-10 Replacement Barrel	**S49410**
S-43-70 Replacement Barrel	**O34370**
S-76-400 Replacement Barrel	**O34370**

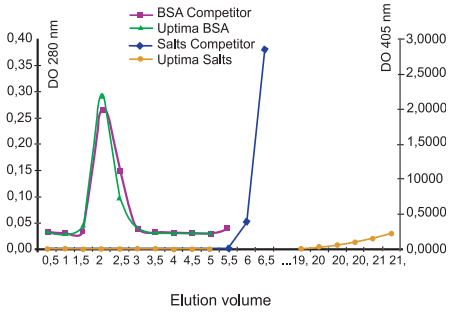
Ultrafiltration Flat CE Membranes for Stirred Cells

The Molecular/Por Ultrafiltration membranes recommended for use with the Stirred Cells are made of a thin (0.1 to 0.5 µm), semi-permeable membrane made from cellulose ester and a substructure support material. Its design do not affect molecule permeation.

These membranes are packaged dry, 1 or 10 units/pkg. Washing with deionized water or dialysis buffer will free the membrane of its wetting agent. Membranes are conditioned and plasticized with glycerin.

MWCO(Da)	Discs 25 mm (10 u / pkg)	Discs 43 mm (1 u / pkg)	Discs 76 mm (10 u / pkg)	Sheets 203 x 254 mm (1 u / pkg)
100	**O34490**	**982750**	**O34830**	**O34390**
500	**O34500**	**O34660**	**O34840**	**O34400**
1 K	**597790**	**O34670**	**O34850**	**O34410**
5 K	**O34510**	**O34680**	**O34860**	**O34420**
10 K	**362760**	**750520**	**O34870**	**O34430**
20 K	**735520**	**815710**	**O34880**	**O34440**
50 K	**O34520**	**O34690**	**O34890**	**O34450**
100 K	**O34530**	**O34700**	**O34900**	**O34460**

- pH Range : 2-to 9
- Organic Chemical Resistance : Fair
- Water Property : Hydrophilic
- Macromolecular Adsorption : Low
- Max. Temp. : 37 °C
- Autoclavable : No



See also other desalting method in section "Dialysis".

Gelfiltration Desalting

Desalting columns

Disposable, fast, unexpensive for biomolecules with MW above 5 kDa.

The desalting treatment is the process that removes salts from solution. In few minutes (3-4 min) the salts and small molecules are removed.

Our new gel is a polymeric hydrophilic porous structure which provide following advantages :

- Reduction to the minimum of the non-specific adsorption effects.
- High mechanical stability
- Chemically stable pH 1 to 14
- No shrinking or swelling

Our desalting tools are offered pre-packed in 5 or 20 ml or in bulk (In this case, empty columns are available). To be as flexible as possible, we offer to pack columns with the volume you desire.

Applications : Exchanging buffers, removing of by-products, sample preparation.

Description	Cat#	Qty
Desalting columns 4 mL	**UP84874D**	5 u
Desalting columns 4 mL	**UP84874E**	20 u
Desalting columns 10 mL	**UP848742**	5 u
Desalting columns 10 mL	**UP84874A**	20 u

Other packaging on request.

TSK-Gel columns for gel Filtration

See next page, chapter "Exclusion chromatography"

Tel 33 (0)4 70 03 88 55 ♦ Hot line 33 (0)4 70 03 73 06 ♦ Fax 33 (0)4 70 03 82 60