

Spectrum Labs Catalog



TFF System



Laboratory Dialysis



Ready-to-use Dialysis



Laboratory Filtration



Spectra/Por® microFloat-A-Lyzer®

Convenience & Efficiency for Microliter Samples

Spectrum introduces the new Micro Float-A-Lyzer® Ready-to-Use Dialysis Device for the easy and efficient dialysis of very small sample volumes (100-500 µl). Providing ultimate convenience, this pre-assembled device incorporates Spectrum's ultrapure Biotech Grade Cellulose Ester (CE) tubular membrane into an easy-to-use design making laboratory microdialysis easier than ever. Available in 2 volumes sizes: 100 - 200 µl & 400 - 500 µl; and 7 concise MWCO's ranging from 100 - 100,000 Daltons.

BENEFITS

- Ready-to-Use & Complete
- Easy Syringe Loading (no needle)
- Total Sample Recovery
- Ultrapure Biotech CE (no cleaning)
- Largest Range of MWCO's
- Maximizes SA & Minimizes Hold-up Volume

Designed for Ease-of-Use and Convenience

The Micro Float-A-Lyzer is designed to stand upright on bench-tops during experimental preparation as well as float and self-orient during dialysis. The leak-proof Luer-Lok® cap provides easy access with the included syringe for easy loading and sample retrieval. The units also interlock for the simultaneous dialysis of multiple samples.

Sample Recovery & Purity

Spectrum's proprietary Biotech Grade CE is a low protein-binding, synthetic membrane available in 7 concise MWCO's and does not require cleaning since there are no heavy metal and sulfide contaminants. The preformed tubular geometry provides maximum membrane surface area for dialysis efficiency, and collapses flat permitting retrieval of every drop. Only Micro Float-A-Lyzer assures a 95-98% sample recovery while maintaining 98% sample purity.

Ready-to-Use Features

- PP Luer-Lok™ cap: Open & close for in-process sampling
Color-coded for MWCO
Leak proof & re-sealable
- Body Piece: Polycarbonate, seals top/bottom ends of membrane, self-buoyant
- Membrane: Ultra-pure with 2 volume specific sizes
Potting: Polyurethane
- Sample Loading: Syringe (1 ml syringe included)



Product Specifications

- Membrane type: Biotech grade Cellulose Ester (CE)
- 7 MWCO's: 0.1 – 0.5 kD, 0.5 – 1.0 kD, 3.5 – 5 kD, 8 – 10 kD, 20 kD, 50 kD & 100 kD
- Packaging: 12/pkg

Dimensions

2 Volume Sizes:	100-200 µl	400-500 µl
Height:	4.4 cm	6.3 cm
Width:	4.5 cm	4.5 cm
Thickness:	1.9 cm	1.9 cm
Membrane Flat Width:	10 mm	10 mm
Membrane Diameter:	6.4 mm	6.4 mm

Ordering Information: Spectra/Por® Micro Float-A-Lyzer®

		MWCO	Cap Color	100-200 µl	400-500 µl	Qty
Spectra/Por® Micro Float-A-Lyzer®	Biotech CE Membrane	0.1 - 0.5 kD	Green	F235049	F235061	12/pkg
		0.5 - 1.0 kD	Orange	F235051	F235063	
		3.5 - 5 kD	Black	F235053	F235065	
		8 - 10 kD	Yellow	F235055	F235067	
		20 kD	Red	F235057	F235069	
		50 kD	White	F235058	F235070	
		100 kD	Blue	F235059	F235071	

Ready-to-Use Dialysis Devices

Spectra/Por® Float-A-Lyzer® G2

Most Cost-Effective Ready to Use Dialysis Device

Spectrum introduces the next generation (G2) in Ready-to-Use laboratory dialysis devices featuring Ultra-pure Biotech Cellulose Ester (CE) Membrane.

- 95 – 98% Sample Recovery
- Highest Membrane Purity
- Superior Handling & Leak Protection
- Volume Specific Dilution Control
- Complete & Ready-to-Use Packaging

Sample Recovery, Purity and Dilution Control

Spectrum's proprietary Biotech Grade CE is a low protein binding synthetic membrane available in 9 precise MWCO's with no heavy metal and sulfide contaminants. Cylindrical tubing geometry prevents sample dilution (associated with cassette-type devices) and provides open access for total volume retrieval. Only the Float-A-Lyzer G2 assures a 95–98% sample recovery while maintaining 98% sample purity and <10% sample dilution.

Designed for Ease-of-Use and Leak Protection

The leak-proof screw-on cap with sealing o-ring provides easy access with included pipette for loading, in-process testing and sample retrieval, without the risk of needle puncture. The included flotation ring improves sample buoyancy and vertical orientation during dialysis. The Float-A-Lyzer G2 is packaged dry and ready-to-go with all components included.



Ready-to-Use Features

- PP Screw-on cap: Open & close for in-process sampling
Color-coded for MWCO
- Silicon O-ring: Leak proof & re-sealable
- Top/Bottom Piece: Durable polycarbonate
- Membrane: Ultra-pure with 3 volume specific sizes
- Floatation Ring: Maintains buoyancy
- Potting: Polyurethane
- Sample Loading: Disposable pipette for 5 & 10 ml (included)
Micropipettor for 1 ml (not included)

Product Specifications

- Membrane type: Biotech grade Cellulose Ester (CE)
- 9 MWCO's: 0.1 – 0.5 kD, 0.5 – 1.0 kD, 3.5 - 5 kD,
8 - 10 kD, 20 kD, 50 kD, 100 kD
300 kD & 1000 kD
- Packaging: 12/pkg

Ordering Information: Spectra/Por® Float-A-Lyzer® G2

	MWCO	Color Code	Sample Volume Sizes			Qty	
			1 ml	5 ml	10 ml		
Spectra/Por® Float-A-Lyzer® G2	Biotech CE Membrane	0.1 - 0.5	Green	G235025	G235049	G235061	12/pkg
		0.5 - 1.0	Orange	G235027	G235051	G235063	
		3.5 - 5	Black	G235029	G235053	G235065	
		8 - 10	Yellow	G235031	G235055	G235067	
		20	Red	G235033	G235057	G235069	
		50	Violet	G235034	G235058	G235070	
		100	Blue	G235035	G235059	G235071	
		300	Amber	G235036	G235060	G235072	
		1000	Pink	G235037	G235062	G235073	

Spectra/Por® Tube-A-Lyzer®

Disposable Ready-to-Use Dialysis Device for Rapid Separation and Dynamic Dialysis



- Dialyze in 4 –12 hours!
- 95 – 98% Sample Recovery
- 2 Volume sizes (10 & 30 ml) & 6 MWCO's
- Pyrogen-Free Biotech CE membrane for higher sample purity



Go to www.spectrumlabs.in to learn more about our Tube-A-Lyzer Dynamic Dialysis Device.

Biotech Grade Membranes

Spectra/Por® Biotech Grade Membranes:

Cellulose Ester (CE) & Regenerated Cellulose (RC)

Only Spectrum offers Biotech Grade dialysis membrane for those critical applications requiring stringent MWCO's and membrane purity. Since these synthetic membranes are made using a process free of heavy metal contaminants and sulfides, they are ultra-pure and require no cleaning or pre-treatment. Simply rinse with DI water, apply Universal Closures* and load sample! Spectrum offers 2 types of Biotech grade membrane to meet the different demands of laboratory dialysis applications: Cellulose Ester (CE) & Regenerated Cellulose (RC).

ADVANTAGES OF BIOTECH MEMBRANES

- Ultrapure for critical separations
- Rigidly controlled porosity
- 2 types available for different applications (CE & RC)
- Large MWCO selection (100 - 1,000,000 Daltons)



Biotech Cellulose Ester (CE) Membrane

Biologically inert & ultra-pure, Biotech CE Membrane offers the largest and best selection of pore ratings and sizes for isolating ionic species and macromolecular purifications. Of the 2 types, Biotech CE is more sensitive to harsh conditions and solvents. In general, CE membrane will tolerate weak or dilute acids & bases as well as mild alcohols with only a slight change to the MWCO. Exposure to organic solvents will damage the CE membranes. Biotech CE should only be used with pH 2-9 & temp 4-37°C. CE dialysis tubing is available in 9 concise MWCO's.

Biotech Regenerated Cellulose (RC) Membrane

Synthetic Biotech RC Membrane is crafted from a regeneration process that yields improved physical tolerances and chemical compatibilities with the same high purity and rigidly controlled MWCO's as Biotech CE. RC Membrane can be used with concentrated-weak acids & bases, dilute-strong acids & bases, most alcohols and some mild or dilute organic solvents. Exposure to strong polar or organic solvents may damage RC membranes. Biotech RC can be used with pH 2-12 & temp 4-60°C. Biotech RC is available in dialysis tubing with 3 concise MWCO's.

*Universal Closures required for use with Biotech Tubing

Biotech Dialysis Tubing

Product Specifications: 2 Membrane Types

Cellulose Ester (CE)

- Properties: Hydrophilic, symmetric porosity
- 9 MWCO's: 0.1 – 0.5 kD, 0.5 – 1 kD, 3.5 – 5 kD, 8 – 10 kD, 20 kD, 50 kD, 100 kD, 300 kD & 1000 kD
- 4 Flat Widths: 10 mm, 16 mm, 24 mm & 31 mm
- Qty/Pkg: 10 m/roll, wet in 0.05% sodium azide

Regenerated Cellulose (RC)

- Properties: Hydrophilic, symmetric porosity
- 3 MWCO's: 3.5 – 5 kD, 8 – 10 kD & 20 kD
- 2 Flat Widths: 10 mm & 16 mm
- Qty/Pkg: 5 m/roll, dry with glycerin



NEW! Biotech Dialysis Trial Kits

Provides shorter length of Biotech CE or RC Dialysis tubing for membrane/application evaluation.

Product Specifications: 2 Membrane Types

- Kit Includes: Biotech dialysis tubing (CE or RC)
- 2 tubing closures
- 5 opening picks

Cellulose Ester (CE)

- Properties: Hydrophilic, symmetric porosity
- 9 MWCO's: 0.1 – 0.5 kD, 0.5 – 1 kD, 3.5 – 5 kD, 8 – 10 kD, 20 kD, 50 kD, 100 kD, 300 kD & 1000 kD
- 1 Flat Width: 16 mm
- Qty/Kit: 1 m/roll, wet in 0.05% sodium azide

Regenerated Cellulose (RC)

- Properties: Hydrophilic, symmetric porosity
- 3 MWCO's: 3.5 – 5 kD, 8 – 10 kD & 20 kD
- 1 Flat Width: 16 mm
- Qty/Kit: 0.5 m/roll, dry with glycerin



Ordering Information: Biotech Dialysis Tubing & Trial Kits

	MWCO (kD)	Tubing Dimensions: Flat Width / Diameter / Volume per length				Qty	NEW! Dialysis Trial Kits					
		10 mm 6.4 mm 0.32 ml/cm	16 mm 10 mm 0.79 ml/cm	24 mm 15 mm 1.8 ml/cm	31 mm 20 mm 3.1 ml/cm		MWCO (kD)	Flat Width: 16 mm Diameter: 10 mm Vol/length: 0.79 ml/cm				
		0.1 - 0.5	0.5 - 1.0	3.5 - 5	8 - 10		0.1 - 0.5	0.5 - 1.0				
Biotech Membrane Dialysis Tubing	CE Tubing	3.5 - 5	131192	131198	-	-	10 m (wet)	CE Trial Kit	3.5 - 5	131198T		
		8 - 10	131264	131270	-	-			8 - 10	131270T		
		20	131336	131342	-	-			20	131342T		
		50	131372	131378	-	-			50	131378T		
		100	131408	131414	-	-			100	131414T		
		300	-	131450	-	-			300	131450T		
		1000	-	131486	-	-			1000	131486T		
		RC Tubing	3.5 - 5	133192	133198	-			-	5 m (dry)	RC Trial Kit	3.5 - 5
	8 - 10	133264	133270	-	-	8 - 10			133270T			
	20	133336	133342	-	-	20			133342T			

Standard Grade RC Membrane

Spectra/Por® 1 - 7

Due to Standard Regenerated Cellulose's (RC) composition of natural cellulose polymer from cotton linters, these membranes are perfectly suited for a broad range of laboratory dialysis applications. This clear and flexible membrane with symmetric porosity is economical and sturdy — ideal for desalting, buffer exchanges, macromolecular purifications and other general applications. Possessing a broad chemical compatibility range, Standard RC membranes can be used with dilute strong acids and bases, concentrated weak acids and bases, most alcohols, and some mild or dilute organic solvents, including DMSO. Exposure to some strong organic solvents may damage RC membranes. Standard RC membranes can be used in pH 2–12 & temperatures 4–121°C environments. Low level heavy metal impurities in Standard RC can easily be eliminated using Spectrum's Heavy Metal Cleaning Solution. Standard RC Membrane is available as rolls of dialysis tubing (dry or pre-treated), dialysis trial kits, or ready-to-use dialysis sacks & flat sheet (discs or square sheets).



There are 7 different categories of Standard RC Membrane, Spectra/Por 1 – 7, each possessing unique combinations of properties to suit various applications:

Spectra/Por® 1 Dialysis Membrane

MWCO: 6,000 – 8,000 Daltons

Properties: Standard RC with glycerol for general dialysis

Spectra/Por® 2 Dialysis Membrane

MWCO: 12,000 – 14,000 Daltons

Properties: Standard RC with glycerol in multiple configurations and/or high permeability

Spectra/Por® 3 Dialysis Membrane

MWCO: 3,500 Daltons

Properties: Standard RC with or without glycerol for general dialysis

Spectra/Por® 4 Dialysis Membrane

MWCO: 12,000 – 14,000 Daltons

Properties: Standard RC with glycerol for general dialysis

Spectra/Por® 5 Dialysis Membrane

MWCO: 12,000 – 14,000 Daltons

Properties: Standard RC without glycerol, reinforced with porous fiber for large volume and weight

Spectra/Por® 6 Dialysis Membrane

MWCO: 1, 2, 3.5, 8, 10, 15, 25 & 50 kD

Properties: Standard RC in 0.05% sodium azide, pre-wetted

Spectra/Por® 7 Dialysis Membrane

MWCO: 1, 2, 3.5, 8, 10, 15, 25 & 50 kD

Properties: Standard RC in 0.05% sodium azide, pre-treated to minimize heavy metals & sulfides



Spectra/Por® Standard RC Dialysis Tubing (Dry Rolls)

Multi-purpose dialysis tubing ideal for a variety of applications and volumes.

Product Specifications

Membrane Type	MWCO	15 Flat Widths (mm)
Spectra/Por 1	6 – 8 kD	10, 23, 32, 40, 50, 100, 120
Spectra/Por 2	12 – 14 kD	10, 25, 45, 105, 120
Spectra/Por 3	3.5 kD	18, 45, 54
Spectra/Por 4	12 – 14 kD	10, 25, 32, 45, 75
Spectra/Por 5	12 – 14 kD	75, 140

Properties: Hydrophilic, symmetric porosity

Quantity: 15 or 30 m roll (depending on Type and Flat Width)

Packaging: Dry with glycerol (rinse out with water) or without glycerol

Related Products: [Tubing Closures \(Universal & Spectra/Por®\)](#)
[Heavy Metal Cleaning Solution](#)



NEW! Spectra/Por® Standard RC Dialysis Trial Kits

Short lengths of standard RC Dialysis tubing for membrane application evaluation

Product Specifications

Kit Includes: 1 or 5 m roll of Spectra/Por 1, 2 or 3

1 standard Spectra/Por Closure & 1 weighted Spectra/Por Closure or 2 standard Spectra/Por Closures

5 opening picks (Spectra/Por 6 & 7 trial kits only)



NEW!

Ordering Information: Spectra/Por® 1, 2, 3, 4 & 5 Tubing & Dialysis Kits

		MWCO	Glycerol	Flat Width (mm)	Diameter (mm)	Vol/Length (ml/cm)	Part No.		Trial Kits	NEW Trial Kits
							15 m/roll	30 m/roll	5 m/roll	1 m/roll
Standard RC Membrane Dialysis Tubing	Spectra/Por® 1	6 - 8 kD	yes	10	6.4	0.32	132645	-	132645T	132645T1
			yes	23	14.6	1.7	-	132650	132650T	132650T1
			yes	32	20.4	3.3	-	132655	132655T	132655T1
			yes	40	25.5	5.1	-	132660	132650T	132650T1
			yes	50	32	7.9	-	132665	132665T	132665T1
			yes	100	64	32	132670	-	132670T	132670T1
			yes	120	76	46	132675	-	132675T	132675T1
	Spectra/Por® 2	12 - 14 kD	yes	10	6.4	0.32	132676	-	-	-
			yes	25	16	2.0	132678	-	132678T	132678T1
			yes	45	29	6.4	132680	-	132680T	132680T1
			yes	105	67	34	132682	-	132682T	132682T1
			yes	120	76	46	132684	-	132684T	132684T1
	Spectra/Por® 3	3.5 kD	yes	18	11.5	1.1	132720	-	132720T	132720T1
			no	45	29	6.4	132724	-	132724T	132724T1
			no	54	34	9.3	132725	-	132725T	132725T1
	Spectra/Por® 4	12 - 14 kD	yes	10	6.4	0.32	-	132697	-	-
			yes	25	16	2.0	-	132700	-	-
			yes	32	20.4	3.3	-	132703	132703T	132703T1
			yes	45	29	6.4	-	132706	-	-
			yes	75	48	18	132709	-	132709T	132709T1
	Spectra/Por® 5	12 - 14 kD	no	75	48	18	132754	-	132754T	132754T1
no			140	89	62	132757	-	132757T	132757T1	

Standard RC Dialysis Tubing, Pre-treated (Wet Rolls)

Multi-purpose dialysis tubing with more MWCO's available. Pre-wetted Spectra/Por 6 tubing is ready-to-use, and does not require soaking to remove glycerol. Spectra/Por 7 is further pre-cleaned to minimize trace levels of heavy metals & sulfides.



Product Specifications: 2 Treatment Types

Spectra/Por® 6: Pre-wetted

8 MWCO's: 1 kD, 2 kD, 3.5 kD, 8 kD, 10 kD, 15 kD, 25 kD & 50 kD

13 Flat Widths: 8 mm, 10mm, 12 mm, 18 mm, 24 mm, 28 mm, 32 mm, 34 mm, 38 mm, 40 mm, 45 mm, 50 mm & 54 mm

Qty & Pkg: 10 m roll, wet in 0.05% sodium azide

Spectra/Por® 7: Pre-treated to reduce trace-level contaminants

8 MWCO's: 1 kD, 2 kD, 3.5 kD, 8 kD, 10 kD, 15 kD, 25 kD & 50 kD

12 Flat Widths: 8 mm, 12 mm, 18 mm, 24 mm, 28 mm, 32 mm, 34 mm, 38 mm, 40 mm, 45 mm, 50 mm & 54 mm

Qty & Pkg: 5 m roll, wet in 0.05% sodium azide

Ordering Information: Spectra/Por® 6 & Spectra/Por® 7 Tubing

	MWCO (kD)	Flat Width (mm)	Diameter (mm)	Volume/Length (ml/cm)	Spectra/Por® 6		Spectra/Por® 7	
					(pre-wetted)	trial kits	(pre-cleaned)	trial kits
Standard RC Membrane Pre-treated Tubing	1	18	11.5	71.1	132636	132636T	132103	132103T
		38	24	4.6	132638	132638T	132104	132104T
		45	29	6.4	132640	132640T	132105	132105T
	2	18	11.5	1.1	132620	132620T	132107	132107T
		38	24	4.6	132625	132625T	132108	132108T
		45	29	6.4	132633	132633T	132109	132109T
	3.5	18	11.5	1.1	132590	132590T	132110	132110T
		45	29	6.4	132592	132592T	132111	132111T
		54	34	9.3	132594	132594T	132112	132112T
	8	8	5.1	0.20	128056	128056T	128356	128356T
		12	7.5	0.45	132579	132579T	132113	132113T
		18	11.5	1.1	128058	128058T	128358	128358T
		24	15	1.8	132580	132580T	132114	132114T
		32	20.4	3.3	132582	132582T	132115	132115T
		40	25.5	5.1	132584	132584T	132116	132116T
	10	8	5.1	0.20	128106	128106T	128406	128406T
		12	7.5	0.45	132570	132570T	132117	132117T
		18	11.5	1.1	128118	128118T	128418	128418T
		24	15	1.8	132572	132572T	132118	132118T
		32	20.4	3.3	132574	132574T	132119	132119T
		45	29	6.4	132576	132576T	132120	132120T
	15	8	5.1	0.20	128156	128156T	128456	128456T
		12	7.5	0.45	132560	132560T	132121	132121T
		18	11.5	1.1	128158	128158T	128458	128458T
		24	15	1.8	132562	132562T	132122	132122T
		32	20.4	3.3	132564	132564T	132123	132123T
	25	8	5.1	0.20	128206	128206T	128506	128506T
		12	7.5	0.45	132550	132550T	132125	132125T
18		11.5	1.1	128218	128218T	128518	128518T	
24		15	1.8	128224	128224T	128524	128524T	
28		18	2.5	132552	132552T	132126	132126T	
50	34	22	3.7	132554	132554T	132127	132127T	
	10	6.4	0.32	132539	132539T	-	-	
	12	7.5	0.45	132540	132540T	132128	132128T	
	28	18	2.5	132542	132542T	132129	132129T	
				132544	132544T	132130	132130T	
			Qty	10 m	1 m	5 m	1 m	



Standard RC Ready-to-Use Dialysis Sacks

Designed for general dialysis of larger sample volumes, the Ready-to-Use Sack consists of a 60 cm length of Spectra/Por 1, 2, 3 or 4 tubing, sealed at one end with a Spectra/Por Closure and a funnel attached to the other end for easy filling. Simply fill, apply closure & cut.

Product Specifications

- 4 Membrane Types: Spectra/Por 1, 2, 3 & 4
- 2 Volume Sizes: 1 – 40 ml, 50 – 400 ml
- Properties: Hydrophilic, symmetric porosity
- Packaging: Wet in 0.05% sodium azide
- Quantity: 10/pkg

Ordering Information: Spectra/Por® 1, 2, 3, 4 & 5 Sacks

		MWCO	Flat Width (mm)	Diameter (mm)	Volume (ml)	Part No.	Qty
Standard RC Membrane Ready-to-Use Sacks	Spectra/Por® 1	6 - 8 kD	23	14.6	1 to 40	132651	10/pkg
			50	32	50 to 400	132666	
	Spectra/Por® 2	12 - 14 kD	25	16	1 to 40	132679	
			45	29	50 to 400	132681	
	Spectra/Por® 3	3.5 kD	18	11.5	1 to 40	132721	
			54	34	50 to 400	132726	
	Spectra/Por® 4	12 - 14 kD	25	16	1 to 40	132701	
			45	29	50 to 400	132707	



Standard RC Dialysis Discs & Sheets

Pre-cut membrane discs and pre-cut square membrane sheets for use as needed for a variety of dialysis equipment.

Product Specifications

- 5 Membrane Types: Spectra/Por 1, 2, 3, 4 & 5
- 3 Disc Diameters: 33 mm, 47 mm, 100 mm
- Sheet Size: Refer to ordering information
- Properties: Hydrophilic, symmetric porosity
- Packaging: Dry with glycerol (rinse out with water) or without glycerol
- Quantity: 50/pkg (discs), 25/pkg (sheets)

Ordering Information: Spectra/Por® 1, 2, 3, 4 & 5 Discs & Sheets

		MWCO	Disc Diameter			Qty	Sheet (Dimensions - mm)	Qty
			33 mm	47 mm	100 mm			
Standard RC Membrane Dialysis Discs & Sheets	Spectra/Por® 1	6 - 8 kD	132478	132476	132474	50 discs/pkg	132677 (240 x 240)	25 sheets/pkg
	Spectra/Por® 2	12 - 14 kD	132482	132480	132477		132686 (200 x 200)	
	Spectra/Por® 3 glycerol-free	3.5 kD	132488	132486	132484		132723 (108 x 108)	
	Spectra/Por® 4	12 - 14 kD	132498	132496	132494		132712 (150 x 150)	
	Spectra/Por® 5 glycerol-free	12 - 14 kD	-	-	-		132759 (275 x 275)	

Dialysis Tubing Closures

Using resealable closures is the preferred method for sealing dialysis tubing without the risk of leaking. Opening and resealing tied knots is difficult and often results in damaged, leaking membranes. Spectrum offers two classes of Dialysis Tubing Closures: Universal Closures for use with all tubing membrane types and Spectra/Por Closures for use only with Standard Grade RC tubing. Specialized Spectra/Por Closures also offer additional functional benefits.

- Leak-proof & Re-sealable
- 2 Classes of Closures (Universal & Spectra/Por®)
- 3 Functional Types & 1 Paired Combination

For best results, select a pair of closures that has a sealing width 4 to 10 mm longer than the flat width of the dialysis tubing. This assures a proper seal without membrane tearing or leaking.



Universal Closures

Specially designed with gentle sealing ridges, Universal Closures are the ideal all-purpose closure that create a reliable seal for all membrane grades, types and thicknesses of tubing. Available in a variety of colors for easy sample identification.

Product Specifications

Functional Benefit:	Universal, seals all tubing membrane types
Membrane Types:	Biotech CE, Biotech RC & Standard RC
4 Sealing Widths:	50 mm, 70 mm, 110 mm, 150 mm
6 Colors:	White, Red, Yellow, Blue, Green, Black
Qty:	10/pkg
Material:	Nylon
Temperature:	0 – 90°C
Sterilization:	Gamma irradiation or ethylene oxide (not autoclavable)

Ordering Information: Universal Closures

	Color	Closure Sealing Width				Qty	
		50 mm	70 mm	110 mm	150 mm		
Universal Closures		Required for Biotech Grade RC & CE Dialysis Tubing					
	White		142150	142170	142110	142250	10/pkg
	Red		142152	142172	142112	142252	
	Yellow		142153	142173	142113	142253	
	Blue		142154	142174	-	-	
	Green		142155	142175	-	-	
Black		142156	142176	-	-		

Spectra/Por® Closures

3 functional types & one pair combination for use with Standard RC.

Standard Closure Type

Since Spectra/Por Standard Closures float, they aid in buoyancy and vertical orientation when applied to the tubing top end. Autoclavable and available in a variety of colors for easy sample identification.

Product Specifications

- Functional Benefit: Sample buoyancy & vertical orientation
- Membrane Types: Standard RC only
- 5 Sealing Widths: 12 mm, 23 mm, 35 mm, 55 mm, 75 mm, 90 mm
- 4 Colors: orange, white, green, blue
- Qty: 10/pkg
- Material: Polypropylene
- Temperature: 0 - 90°C (autoclavable at 121°C)



Weighted Closure Type

Autoclavable, Spectra/Por Weighted Closures encase an acid-washed, fluorocarbon coated, stainless steel bar. When applied to the bottom end of the dialysis tubing, the Weighted Closure acts like an anchor to maintain a vertical orientation of the sample.

Product Specifications

- Functional Benefit: Weighted for vertical sample orientation
- Membrane Types: Standard RC only
- 5 Sealing Widths: 12 mm, 23 mm, 35 mm, 55 mm, 75 mm, 90 mm
- 1 Color: White
- Qty: 10/pkg
- Material: Polypropylene
- Temperature: 0 - 90°C (autoclavable at 121°C)



Magnetic Closure Type

Autoclavable, Spectra/Por Magnetic-Weighted Closures contain a magnetic fluorocarbon coated stainless steel bar, eliminating the need for conventional stir bars. Applied to the bottom end of the dialysis tubing, this closure provides complete submersion and gentle rotation of the sample on a stir plate.

Product Specifications

- Functional Benefit: Weighted & magnetic for submersion & stirring
- Membrane Types: Standard RC only
- 4 Sealing Widths: 23 mm, 35 mm, 55 mm, 75 mm
- 1 Color: Red
- Qty: 2/pkg
- Material: Polypropylene
- Temperature: 0 - 90°C (autoclavable at 121°C)

Paired Standard & Weighted Closures

The ultimate sample buoyancy and vertical orientation can be achieved by applying both a Standard and a Weighted Spectra/Por Closure to opposite ends of the same dialysis tubing. The Paired Closures are autoclavable.

Product Specifications

- Functional Benefit: Buoyancy and vertical orientation
- Membrane Types: Standard RC only
- 5 Sealing Widths: 12 mm, 23 mm, 35 mm, 55 mm, 75 mm, 90 mm
- Paired colors: Orange/White
- Qty: 10 standard & weighted pairs/pkg
- Material: Polypropylene
- Temperature: 0 - 90°C (autoclavable at 121°C)

Ordering Information: Spectra/Por® Closures (Standard, Weighted, Magnetic & Paired)

Spectra/Por® Closures (only use with Standard Grade RC Tubing)	Color	Closure Sealing Width					Qty	
		12 mm	23 mm	35 mm	55 mm	75 mm		90 mm
Standard Type	Orange	132734	132735	132736	132737	132738	132739	10/pkg
	White	142734	142735	142736	142737	142738	142739	
	Green	142834	142835	142836	142837	142838	142839	
	Blue	142934	142935	142936	142937	142938	142939	
Weighted Type	White	132742	132743	132744	132745	132746	132747	10/pkg
Magnetic Type	Red	-	132760	132762	132764	132766	-	2/pkg
Paired Standard & Weighted	Orange/White	132749	132750	132751	132752	132753	132748	10 pairs/pkg

Spectra/Por® Dialysis Recirculation Tank

Introduction

The Spectra/Por® Dialysis Recirculation Tank makes dialysis of larger sample volumes ranging from 100 ml to 2 liters (depending on tank size) faster and more efficient. The Tank is equipped with lower inlet and upper outlet flow-through ports that allows connection to a separate, large-volume reservoir (20 – 1000 liters) that can be located remotely for continuous buffer circulation at a rate of 100-200 ml/min via flexible tubing and a peristaltic pump. The recirculation or single pass (to drain) flow of buffer maintains a higher concentration gradient and rate of dialysis as compared to static buffer changes (4 – 10 volume changes). The narrow cylindrical tank shape maintains the buffer flows within close proximity of the membrane surface. This increased efficiency often reduces the total buffer volume required for sample purification. The Dialysis Recirculation Tank is available in 3 volume sizes: 5, 7 and 10 Liter.

Modes of Operation

Recirculation Mode: Buffer flow returned to remote source

Single-pass Mode: Buffer flow directly to discharge/drain

Benefits

- Connects to remote buffer source
- Increases dialysis efficiency
- Reduces duration of dialysis
- Small foot-print conserves space
- Reduces the volume of buffer required

Description	Material	Qty
1. Tank Body (5, 7 or 10 L)	polysulfone	1
2. Sanitary Base Plate, 6 in.	316 SS	1
3. Adaptor, 1.5 in. San x 1/4 in. HB	polypropylene	1
4. Adaptor, 1.5 in. San. x 1/2 in. HB	polypropylene	1
5. Sanitary Gasket, 6 in.	silicone Pt cured	1
6. Sanitary Gasket, 1.5 in.	silicone Pt cured	2
7. Sanitary Clamp, 6 in.	nylon	1
8. Sanitary Clamp, 1.5 in.	nylon	2
9. Instructions for Use	N/A	1

Contents

Part Number	163009	163010	163011
Volume Size	5 L	7 L	10 L
Tank Height	63 cm	81 cm	121 cm
Base Width (with clamp)	23.5 cm	23.5 cm	23.5 cm
Top Diameter	16.5 cm	16.5 cm	16.5 cm
Minimum Internal Diameter	10.5 cm	10.5 cm	10.5 cm



Spectra/Por® Dialysis Recirculation Tank

Tank Dimensions (assembled)

Assembly Instructions:

1. Remove the contents from the packaging and check to make sure nothing is missing. If a part is missing, contact Spectrum for a replacement.
2. Clean all fluid contact parts (1-6) with appropriate lab detergent prior to assembly.
3. Standing the Tank Body (1) upright, place the 6 in. Sanitary Gasket (5) on the upper 6 in. sanitary opening of the Tank Body with the Gasket's outer lip facing downward. Make sure the Gasket's circular ridge rests completely in the circular groove of the tank's open end.
4. Place the 6 in. SS Base Plate (2) with the circular groove facing downward over the 6 in. Sanitary Gasket. Make sure the Gasket's circular ridge rests completely in the circular groove of the Base Plate.
5. Open the 6 in. Sanitary Clamp (7) by first loosening the hinge wing nut and then loosening and pulling sideways the locking wing nut. Secure the 6 in. Sanitary Clamp around the perimeter of the SS Base Plate, Gasket and Tank upper opening by hand-tightening first the hinge wing nut and then the locking wing nut. (Note: make sure the "wings" end-up parallel to the ground).
6. Invert the Tank so that the SS Base Plate is now on the bottom. This is the tank orientation during operation. (Note: Make sure the wing nuts do not cause wobbling. A slight wobble due to clamp distortion is okay.)
7. Secure the 1.5 in. Sanitary to 1/4 in. HB Adaptor (3) to the Tank lower side-port using a 1.5 in. Sanitary Gasket (6) and a 1.5 in. Sanitary Clamp (8). Secure the 1.5 in. Sanitary to 1/2 in. HB Adaptor (4) to the Tank upper side-port using a 1.5 in. Sanitary Gasket (6) and a 1.5 in. Sanitary Clamp (8). Make sure to hand tighten the clamp enough to prevent leaks.
8. Connect one end of 1/4 in. ID flexible tubing (not included) to the 1/4 in. HB on the lower side-port. Thread this tubing through the pump-head on a peristaltic pump (not included) and connect the other end to the buffer source reservoir. This will be the feed line for the Dialysis Recirculation Tank.

9. Connect one end of 1/2 in. ID flexible tubing (not included) to the 1/2 in. HB on the upper side-port. Connect the other end to the buffer source reservoir or direct to drain. This will be the return or drain line. (Note: it is important that the HB and flexible tubing connected to the upper side-port is larger than HB and flexible tubing on the lower side-port to avoid over-flowing the Dialysis Recirculation Tank. Also, the return/drain line should be oriented downward to allow proper draining.)

Operating Instructions:

1. Fill the Tank by turning on the pump and adjusting the flow rate to 1-2 L/min. This can take 5-10 min. When the buffer level is about 4 inch (10 cm) below the upper side-port, place the dialysis sample in the Dialysis Tank. (Note: sample volumes larger than 1 L should be placed in the Tank sooner.) When the buffer starts pouring out the return/drain line, reduce the pump flow rate to 100-200 ml/min.
2. Continue to dialyze at the recommended flow rate of 100-200 ml/min. (Note: flow rate may need to be optimized for the application). If desired, loosely cover (not included) the tank opening. (Note: DO NOT seal the upper end closed since this may allow pressure to increase and adversely affect dialysis.)
3. Single Pass Mode: since the buffer volume is not maintained by recirculation, the level in the source reservoir will diminish over time. Make sure that the buffer source does not run out by periodically replenishing the volume level.
4. When done, remove dialysis sample from the Dialysis Recirculation Tank. To empty the Tank back into the buffer source; turn the pump off, reverse the flow direction, turn the pump back on and adjust the flow rate to 2 L/min. To empty the Tank to drain; turn the pump off, disconnect the feed line from the buffer source, direct feed line to drain, reverse the pump flow direction, turn the pump back on and adjust the flow rate to 2 L/min.
5. When the pump starts pulling air, lift and tilt the Dialysis Tank to allow remaining buffer to drain out the lower side port. When the tank is empty, turn off the pump.

Tangential Flow Depth Filtration Technology (TFDF) for Bioreaction Perfusion

Combines the Advantages of Tangential Flow Filtration and Depth Filtration to Minimize Membrane Fouling and Maximize Protein Passage



CultureGard® Perfusion Filters

Sterile Protection for Culture Feeding & Harvesting

CultureGard Hollow Fiber (HF) Filters are designed to reduce the risk of contamination to continuous perfusion cultures. The use of two filters in series allows the user to easily change the first filter if it becomes plugged or contaminated. The second filter maintains the sterility of the culture. Luer connectors provide a convenient retrofit to any hollow fiber or deep tank bioreactor system. All CultureGard units are manufactured with DynaFibre®, a 0.2 µm microporous, naturally hydrophilic filter membrane. The use of DynaFiber results in low extractable and excellent biocompatibility. Each unit contains a unique autovent feature which prevents air locking and allows for operation of the CultureGard assembly in any position. Manufactured to the highest standards, CultureGard units are nonpyrogenic, non-cytotoxic, 100% integrity tested and pass USP XXI Class VI toxicity testing.

Features

- 0.2 µm DynaFibre® Hollow Fiber Membrane
- Autoclavable
- Biocompatible
- High Surface Area in Compact Device
- Includes an Automatic Vent to Prevent Air Lock
- High Flux Rate
- USP XXI Class VI Tested and Approved
- Non-Pyrogenic with LAL Testing
- 100% Integrity Tested

Product Specifications

Pore Rating: 0.2 µm
 Membrane SA: 70 cm²
 Inlet/Outlet Conn.: Female Luer-Lok™(FLL)/ Male Luer-Lok™ (MLL) Packaging: 12/pkg, non-sterile

Components

HF Membrane: Mixed cellulose ester
 HF Vent: Polypropylene
 Potting Material: Polyurethane
 Housing: Clear polysulfone
 End-caps: Pigmented polysulfone
 1/8" HB Adaptors: Polypropylene (4 MLL & 4 FLL)



Ordering Information: CultureGard®

	Part No.	Description	Pore Rating	Surface Area	Suggested Volume	IN / OUT Connections	IRR	Filling Bell	Qty/Pkg	
Perfusion Filters	CultureGard®	CU2M-205-12N	CultureGard	0.2 µm	70 cm ²	2 - 50 L	FLL / MLL	NO	NO	12

FLL = Female Luer-Lok™, MLL = Male Luer-Lok™

MediaKap® & MediaKap® Plus HF Filters

Sterile Filtration of Culture Medium with Serum

MediaKap Filters with 0.2 µm Dynafibre membrane are designed to efficiently sterilize and clarify culture media or buffer solutions. MediaKap Plus Filters have an advanced DynaFibre® membrane that increases filtration efficiency and dramatically reduces the time required to filter serum-enriched medium. Both filters can be operated by gravity or under pressure by a peristaltic pump or pressure vessel. Sterile MediaKap and MediaKap Plus Filters are available in 5 different sizes that can filter 2, 5, 10, 25 or 50 liter volumes in 15 – 20 minutes. Each is available with an optional filling bell that protects the sterile environment and reduces the risk of contamination.



Features

- 0.2 µm DynaFibre® Hollow Fiber Membrane
- Biocompatible
- High Surface Area in Compact Device
- Includes an Automatic Vent to Prevent Air Lock
- High Flux Rate
- USP XXI Class VI Tested and Approved
- Non-Pyrogenic with LAL Testing
- 100% Integrity Tested

Product Specifications

2 Filter Types: MediaKap & MediaKap Plus
 5 Volume Sizes: 2, 5, 10, 25 and 50 liter
 Pore Rating: 0.2 µm
 Membrane SA: refer to Ordering Information below
 Inlet/Outlet Conn.: refer to Ordering Information below
 Packaging: Irradiated

Components

HF Membrane: Mixed cellulose ester
 HF Vent: Polypropylene
 Potting Material: Polyurethane
 Housing: Polycarbonate
 End-caps: Clear & pigmented polysulfone
 Filling Bell: PVC (if present)

Performance Specifications

Filter Size & Type	Water Flow @ 10 psig	DMEM w/o serum	DMEM w/ serum
MediaKap-2	400 ml/min	0.2 – 2 L	-
MediaKap-5	750 ml/min	2 – 5 L	-
MediaKap-10	1000 ml/min	5 – 10 L	-
MediaKap-25	1400 ml/min	10 – 25 L	-
MediaKap-50	2000 ml/min	25 – 50 L	-
MediaKap-2 Plus	400 ml/min	5 L	0.2 – 2 L
MediaKap-5 Plus	750 ml/min	10 L	2 – 5 L
MediaKap-10 Plus	1000 ml/min	20 L	5 – 10 L
MediaKap-25 Plus	1400 ml/min	50 L	10 – 25 L
MediaKap-50 Plus	2000 ml/min	100 L	25 – 50 L

Ordering Information: MediaKap® & MediaKap® Plus

	Part No.	Description	Pore Rating	Surface Area	Suggested Volume	IN / OUT Connections	IRR	Filling Bell	Qty/Pkg
Direct Flow Filtration	MediaKap®	ME2M-02B-12S	0.2 µm	35 cm ²	0.2 - 2 L	FLL / Male Slip Luer	YES	YES	12
		ME2M-020-18S						NO	18
		ME2M-05B-12S		70 cm ²	2 - 5 L	YES		12	
		ME2M-050-18S				NO		18	
		ME2M-10B-12S		100 cm ²	5 - 10 L	1/4HB / 1/4HB		YES	12
		ME2M-100-18S				NO		18	
		ME2M-25B-06S		185 cm ²	10 - 25 L	VarHB / VarHB		YES	6
	ME2M-50B-03S	440 cm ²	25 - 50 L	YES	3				
	MediaKap® Plus	MP2M-02B-12S	0.2 µm	35 cm ²	0.2 - 2 L*	FLL / Male Slip Luer	YES	YES	12
		MP2M-020-18S						NO	18
		MP2M-05B-12S		70 cm ²	2 - 5 L*	YES		12	
		MP2M-050-18S				NO		18	
		MP2M-10B-12S		100 cm ²	5 - 10 L*	1/4HB / 1/4HB		YES	12
		MP2M-25B-06S				185 cm ²		10 - 25 L*	VarHB / VarHB
MP2M-50B-03S		440 cm ²		25 - 50 L*	YES	3			

FLL = Female Luer-Lok™ *Volumes for serum-enriched media

DynaGard® Hydrophilic Syringe Tip Filters

Mixed Cellulose Membrane (ME) for Aqueous Solutions

Uniquely designed with looped 0.2 µm DynaFibre® membrane, DynaGard filters have a large surface area and high flux rate. The narrow housing design minimizes hold-up volume and enables easy aspiration and dispensing in ampules, test tubes & other small vessels. Compared to flat sheet disk filters, DynaGards can filter highly viscous solutions more gently and efficiently.

Features

- 0.2 µm hydrophilic DynaFibre® Hollow Fiber Membrane
- Ultra Low Hold Up Volume
- Narrow Tip for Easy Access
- High Flux Rate
- USP XXI Class VI Tested and Approved
- Non-Pyrogenic with LAL Testing
- 100% Integrity Tested

Product Specifications: 3 Sizes Available

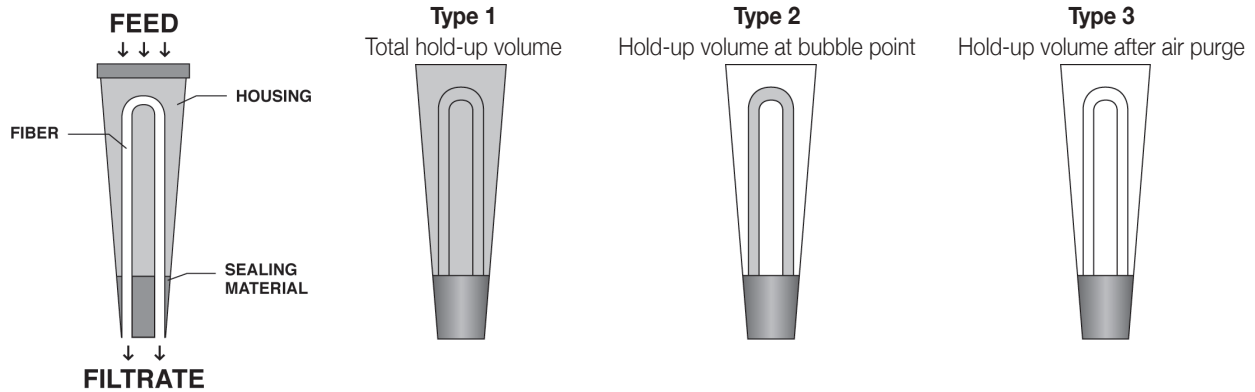
Membrane SA:	2.5 cm ²	3.4 cm ²	5.5 cm ²
Filtration Volume:	< 5 ml	1 – 10 ml	5 – 20 ml
Type 1 Hold-up Volume:	< 260 µL	< 375 µL	< 485 µL
Type 2 Hold-up Volume:	< 45 µL	< 80 µL	< 120 µL
Type 3 Hold-up Volume:	< 18 µL	< 23 µL	< 35 µL
Pore Rating:	0.2 µm	0.2 µm	0.2 µm
Housing Length:	3.0 cm	4.3 cm	5.4 cm
Housing Diameter:	0.6 cm	0.6 cm	0.6 cm
Top End:	FLL	FLL	FLL
Bottom End:	ML Slip	MLL	ML Slip



Available Irradiated: YES YES
YES

Components

Housing: Polycarbonate (blue)
HF Membrane: Mixed Cellulose Ester (ME)
Potting: Epoxy



Ordering Information: DynaGard® Blue - Mixed Cellulose Membrane (ME) for Aqueous Solutions

		Part No.	Description	Pore Rating	Surface Area	Suggested Volume	IN / OUT Connections	IRR	Filling Bell	Qty/Pkg
Direct Flow Filtration	DynaGard® ME	DG2M-110-50S	DynaGard - ME	0.2 µm	2.5 cm ²	< 5 ml	FLL / ML Slip	YES	N/A	50
		NO						200		
		DG2M-23L-50S			3.4 cm ²	1 - 10 ml	FLL / ML	YES		50
		NO						100		
		DG2M-330-50S			5.5 cm ²	5 - 20 ml	FLL / ML Slip	YES		50
		NO						100		
DG2M-330-100										

FLL = Female Luer-Lok™, ML = Male Luer-Lok™

DynaGard® Hydrophobic Syringe Tip Filters

Polypropylene (PP) Membrane for Organic Solutions

Specifically designed for filtering HPLC, solvent and organic samples, the white hydrophobic DynaGard Filters feature a polypropylene hollow fiber membrane incorporated in the same highly efficient, sleek housing. DynaGard filters provide minimum hold-up volume and maximum sample recovery.

Polypropylene DynaGards are available in 0.2 µm membrane pore ratings and 2 filter surface areas. The narrow design provides easy aspiration and injection of fluids into and out of vials, ampules, test tubes and other vessels with small openings.

Features

- High Chemical Resistance
- 0.2 µm hydrophobic Polypropylene membrane
- Ultra Low Hold Up Volume
- Narrow Tip for Easy Access
- High Flux Rate
- 100% Integrity Tested

Product Specifications: 2 Sizes Available

Membrane SA:	0.8 cm ²	3.9 cm ²
Filtration Volume:	< 5 ml	5 - 20 ml
Hold-up Volume		
(after air purge):	< 8 µl	< 30 µl
Pore Rating:	0.2 µm	0.2 µm
Housing Length:	3.0 cm	5.4 cm
Housing Diameter:	0.6 cm	0.6 cm
Top End:	FLL	FLL
Bottom End:	ML Slip	ML Slip
Available Irradiated:	NO	NO

Components

Housing:	Polypropylene (white)
HF Membrane:	Polypropylene
Potting:	Epoxy



Ordering Information: DynaGard® White - Polypropylene (PP) for HPLC and Solvent Filtration Applications

	Part No.	Description	Pore Rating	Surface Area	Suggested Volume	IN / OUT Connections	IRR	Qty/Pkg
Direct Flow Filtration	DynaGard® PP	DG2P-110-200		0.8 cm ²	< 5 ml			200
			DynaGard - PP	0.2 µm			FLL / ML Slip	NO
	DG2P-320-100			3.9 cm ²	5 – 20 ml			100

FLL = Female Luer-Lok™, ML = Male Luer-Lok™

Spectra/Mesh® Woven Filters



Spectrum provides a broad range of monofilament woven mesh screens, characterized by precise mesh openings, percent open area and mesh thickness.

Mesh Opening is the distance between the strands and is expressed in microns.

Open Area represents the proportion of total area that is open space and is expressed as a percentage.

Mesh Thickness is the thickness of the woven screen (approximately two strands) and is expressed in microns.

U.S. Standard Sieve Size Reference Table

The U.S. Bureau of Standard and American Society of Testing Materials adopted the following "Sieve Size" specification as a means to standardize filtration mesh screens. The sieve number is an arbitrary designation and does not refer to a mesh count/inch.

Mesh Size	Mesh Opening (µm)	Mesh Size	Mesh Opening (µm)
5	4000	45	354
6	3360	50	297
7	2830	60	250
8	2380	70	210
10	2000	80	177
12	1680	100	149
14	1410	120	125
16	1190	140	105
18	1000	170	88
20	841	200	74
25	707	230	63
30	545	270	53
35	500	325	44
40	420	400	37

Spectra/Mesh® Application Selection Guide

There are five polymer types to select from depending on the macrofiltration application; Nylon (N), Polyester (P), Polypropylene (PP), PEEK (PK) and Stainless Steel (SS).

Macrofiltration Application	Spectra/Mesh® Type				
	N	P	PP	PK	SS
ENVIRONMENTAL					
Hazardous Waste	✓			✓	
Drinking Water Purification	✓	✓	✓	✓	
Acid Rain Measurement	✓			✓	✓
Suspended Soils	✓	✓	✓	✓	✓
Rock Grading			✓		✓
Air / Asbestos	✓	✓			✓
Coal Dust Analysis	✓	✓			✓
Oceanography	✓				✓
Trace Element Analysis	✓	✓	✓	✓	
Fertilizers	✓	✓	✓	✓	✓
PHARMACEUTICAL					
Aqueous Serum Clarification	✓	✓	✓		
Organic Serum Clarification		✓	✓	✓	
Immunological & Diagnostic Assays	✓	✓	✓		
Solution Manufacturing	✓	✓	✓	✓	✓
CHEMICAL					
Bacteria Removal	✓	✓	✓	✓	✓
Particulate Removal	✓	✓	✓	✓	✓
Solvent Filtration	✓	✓	✓		
Gas Filtration			✓	✓	✓
Fuel Testing			✓	✓	✓
RESEARCH					
Cellular Separations	✓	✓	✓	✓	
Tissue Culture	✓	✓	✓	✓	
Colony Transfer	✓	✓			
Plaque Lifts	✓	✓	✓	✓	
Immunology	✓	✓			
HPLC Sample Preparation	✓	✓			
Cellular & Bacterial Analysis		✓			
Protein & Virus Purification	✓	✓		✓	
Trace Element Analysis		✓		✓	
RNA & DNA Hybridization	✓		✓		
Electron Microscopy	✓	✓	✓	✓	✓
INDUSTRY					
Photoresist / Semi-conductor	✓		✓		
Electronic Fluid Filtration	✓		✓	✓	✓
Air Venting		✓	✓		✓
Tank Venting		✓	✓	✓	✓
Steam Sterilization				✓	✓
Business Machines & Appliances	✓	✓			✓
Automotive Equipment	✓	✓			✓
Pulp & Paper Production	✓	✓	✓	✓	✓
Food Processing	✓	✓			
Cosmetic Processing	✓	✓	✓		
Wine & Beer Clarification/Sterilization	✓				

Product Specifications & Properties

Material Type	Nylon	Polyester	Polypropylene	PEEK	Stainless Steel
Mesh Openings:	5 - 1000 µm	5 - 300 µm	105 - 1000 µm	35 - 800 µm	30 - 914 µm
Water Affinity:	hydrophilic	mildly hydrophobic	hydrophobic	very hydrophobic	hydrophilic
Strength/Durability:	high	high	high (wet)	medium	very high
Adsorption:	high	low	low (inert)	very low (inert)	high
Best Resistance:	corrosives	alkalis / organics	acids / alkalis / organics	nearly all	corrosives
pH Resistance:	pH 3 - 10	pH 3 - 13	pH 2 - 14	pH 1 - 14	pH 4 - 12
Thermal Stability:	up to 180°C	up to 140°C	up to 130°C	up to 250°C	up to 180°C
Sterilization:	irradiation	autoclavable	autoclavable	autoclavable	autoclavable / irradiation

Ordering Information: Spectra/Mesh® Woven Filters

	Mesh			Disc Diameter				Sheet
	Opening (µm)	Open Area (%)	Thickness (µm)	25 mm	47 mm	55 mm	90 mm	30 x 30 cm
Nylon	5	2	100	148100	148130	145816	145925	146519
	8	1	75	148101	148131	145815	145924	146518
	10	2	45	148102	148132	145813	145922	146514
	20	14	55	148104	148134	145811	145920	146510
	25	16	55	148105	148135	145810	145919	146508
	30	21	64	148106	148136	145809	145918	146506
	41	33	60	148108	148138	145807	145916	146502
	53	36	60	148110	148140	145805	145914	146498
	60	45	55	148111	148141	145803	145912	146494
	70	36	70	148113	148143	145801	145910	146490
	100	47	78	148115	148145	145799	145908	146488
	200	55	125	148116	148146	145798	145907	146487
	300	50	200	148117	148147	145797	145906	146486
	600	51	445	-	-	-	-	146483
710	45	350	-	-	-	-	146482	
1000	58	1350	-	-	-	-	146479	
Polyester	5	2	65	148240	148270	145828	145937	146521
	10	2	55	148242	148272	145831	145939	146524
	15	8	55	148243	148273	145832	145948	146525
	21	15	70	148244	148274	145833	145940	146526
	43	29	70	148248	148278	145837	145942	146530
	60	29	87	148250	148280	145840	145954	146533
	74	36	90	148252	148282	145842	145956	146535
	80	39	90	148253	148283	145843	145945	146536
300	44	258	148257	148287	148300	145962	148390	
Polypropylene	105	26	212	148496	148516	145775	145884	146436
	149	34	193	148498	148518	145773	145882	146432
	210	34	308	148500	148520	145771	145880	146428
	250	31	430	148501	148521	145770	145879	146426
	297	36	420	148502	148522	145769	145878	146424
	350	34	525	148503	148523	145767	145876	146422
	500	39	610	148505	148525	145765	145874	146418
	840	46	725	148508	148528	145762	145871	146412
1000	45	1020	148509	148529	145761	145870	146410	
PEEK	35	22	71	148800	148801	148802	148803	146802
	115 x 145	56	50	148840	148841	148842	148843	146804
	220	56	128	148860	148861	148862	148863	146806
	300	36	370	148880	148881	148882	148883	146808
	800	45	750	148940	148941	148942	148943	146814
			Qty/Pkg:	10	10	10	10	3
Stainless Steel	30	30	50	-	-	145827	145936	148985
	51	42	56	-	-	145826	145935	148986
	104	45.2	102	-	-	145825	145934	146439
	213	49.8	178	-	-	145823	145932	146438
	500	57	330	-	-	145817	145926	148987
	914	52	712	-	-	148931	148934	148989
			Qty/Pkg:			5	5	2

new

KR2i TFF System

KrosFlo® Research 2i Tangential Flow Filtration System

Fully Integrated and Easy-to-Use

- Digitally controlled peristaltic pump
- Precise and reproducible control and documentation of tangential flow filtration of volumes from 1ml to 10L
- Capable of ≤ 1 ml hold up volume
- Interfaces with auxiliary scales & pumps for automated process control
- cGMP compatible





Automatic Backpressure Valve (ABV)

- Automatically adjusts its pinch distance to exert and maintain user-defined set-points for the Inlet, Outlet, Permeate, or Transmembrane Pressures
- The ABV decreases the chance of membrane fouling by maintaining a uniform TMP
- Controls the Permeate pressure and flow during MF applications
- Reduces operator process management time
- Decreases tangential flow filtration processing time



Microsoft Surface Pro 4 with Excel® 2016

KF Comm Data Collection Software

- Records 12 real-time operating parameters
- Calculates 8 processing parameters
- Automatically graphs data in VBA-enabled Excel® based software
- 21 CFR Part 11 compliant when used with optional software package



Digital Pressure Monitor

- Measures and displays 4 pressures
- 6 user defined pressure alarm-set points with auto-shutoff options
- 6 user defined weight alarm set-points with auto-shutoff options

KMP_i TFF System

KrosFlo® MiniKros® Pilot Tangential Flow Filtration System

Fully Integrated and Easy-to-Use

- Digitally controlled peristaltic pump
- Automated for precise and reproducible tangential flow filtration

Digital Pressure Monitor and Transducers

- Measure and display 4 pressures
- 5 user defined pressure alarm set-points with auto-shutoff option
- 3 sterile single-use pressure transducers



KF Comm Data Collection Software

- Records 8 real-time operating parameters
- Calculates 9 processing parameters
- Automatically graphs data in an Excel® based software



Automatic Backpressure Valve

- Controls TMP or user defined permeate back pressure
- Reduces the change of membrane fouling by maintaining a uniform TMP
- Reduces operator process management time
- Decreases TFF processing time

KrosFlo Permeate Scale

Automates the calculation of permeate flow rate

Tangential Flow Filters compatible with the KR2i TFF System

MicroKros® Filters

Processing Volumes: 1ml to 100ml
Connections: MLL x FLL
Effective Lengths: 20, 41.5 and 65 cm
Surface Areas: 20 cm² to 60 cm²



MidKros® Filters

Processing Volumes: 100ml to 3L
Connections: FLL x FLL
Effective Lengths: 38, 41.5 and 65 cm
Surface Areas: 75 cm² to 370 cm²



MidKros® TC Filters

Processing Volumes: 100ml to 3L
Connections: 1/2" TC x FLL
Effective Lengths: 20, 41.5 and 65 cm
Surface Areas: 75 cm² to 370 cm²



MiniKros® Sampler Filters

Processing Volumes: 3L to 15L
Connections: 1/4" TC x 1/4" TC
Effective Lengths: 38, 41.5 and 65 cm
Surface Areas: 480 cm² to 2000 cm²



Tangential Flow Filters compatible with KMPi TFF System

MiniKros® Filters for Pilot Scale Volumes

Processing Volumes: 5 to 50 L
Connections: 1 1/2" TC x 3/4" TC
Effective Lengths: 20, 41.5 and 65 cm
Surface Areas: 1,550 cm² to 8,500 cm²



KrosFlo® Filters for Production Scale Volumes

Processing Volumes: 10 to 100 L
Connections: 3" TC x 1 1/2" TC
Effective Lengths: 20, 41.5 and 65 cm
Surface Areas: 7,850 cm² to 4.1 m²



Hollow Fiber Filter Modules Standard Product Number Key

K 06 - E 100 - 05 - N

① ② ③ ④ ⑤ ⑥

Module Family ①

- C MicroKros® MLL x FLL
- D MidKros® FLL x FLL
- T MidKros® TC 1/2" TC x FLL
- S MiniKros® Sampler 1/4" TC x 1/4" TC
- N KrosFlo® 1 1/2" TC x 3/4" TC
- K KrosFlo® 3" TC x 1 1/2" TC
- X KrosFlo® 3" TC x 1 1/2" TC

Available Effective Length ②

20 cm, 41.5 cm, 65 cm, 100 cm

Fiber Inner Lumen ⑤

0.50 mm, 0.65 mm, 0.75 mm, 1.00 mm

Membrane Type ③

- E mPES (Modified Polyethersulfone)
- S PS (Polysulfone)
- P PES (Polyethersulfone)
- M ME (Mixed Cellulose Ester)

MWCO Rating ④

001	1 kD
003	3 kD
005	5 kD
010	10 kD
030	30 kD
050	50 kD
070	70 kD
100	100 kD
300	300 kD
500	500 kD
750	750 kD
05U	0.05 µm
10U	0.10 µm
20U	0.20 µm
45U	0.45 µm
50U	0.50 µm
65U	0.65 µm

Packaging ⑥

- N Normal
- S Sterile
- P Pre-Wet



Genetix Biotech Asia Pvt. Ltd.

71/1, First Floor, Shivaji Marg, Najafgarh Road, New Delhi - 110015 - INDIA
phone : +91-11-45027000 ~ email : info@genetixbiotech.com ~ www.genetixbiotech.com

Mumbai Office:
318-319, A Wing, Third Floor, Kanara Business centre, Ghatkopar (East), Mumbai - 400 075
Telephone: 022-25006830, 25006831
Fax: 022-25006834, 25003897
Email: info@genetixbiotech.com, mumbai@genetixbiotech.com

Bangalore Office:
Door No : 806 , 4th Main , "A" Block , Rajajinagar Bangalore - 560010.
Telephone: +91-80-23579411 / 23376270
Fax: +91-80-23579411
Email: info@genetixbiotech.com, bangalore@genetixbiotech.com

Hyderabad Office:
2nd Floor, Thakker House Door No. 1-19-80, Plot No. 39, Vijayapuri Colony Above State Bank of Hyderabad, Kapra, Hyderabad - 500 062.
Telephone: +91-40-40161304, 42024387
Email: info@genetixbiotech.com, hyderabad@genetixbiotech.com

Ahmedabad (Representative):
Contact Person: Mr. Munjal Desai
Email: info@genetixbiotech.com

Pune (Representative):
Contact Person: Mr. Sabir Farooqui
Email: info@genetixbiotech.com