



Sartorius Crossflow
Economical
Downstream Processing

Sartorius Biotechnology – First Class Crossflow Cassettes



By deciding on a Sartorius Crossflow filtration system, you've opted for a first-class line of products. At the same time, you'll also benefit from a wide range of services for separation technology that can only be offered by a complete total-service provider.

With Sartorius, you've gained a partner with extensive engineering know-how in the production areas of biotechnology and pharmaceuticals. We can provide you with high-performance membranes which are integral elements in your Biopharmaceutical Manufacturing Process.

To complement membrane development and Cassette design, our core areas of expertise is the engineering of highest quality crossflow Systems. Within the Sartorius Biosystems group new synergy effects could be realized resulting in a new generation of aseptic operating crossflow systems. This integration extends from the laboratory to the pilot phase right up to verifiable automatic production systems which enables bioprocess manufacturers to combine the fermentation process with the downstream process.

In every case, you can be sure that you're benefiting from high quality products and services.

- Adaptable to your growing demands
- Process oriented
- Reduce cost
- Increase yield



Sartorius Crossflow – Simply Convincing

Membranes you always wanted

Your demand is to efficiently process highly valuable products to produce the highest yield. High-performance membranes fit into your bioprocess through:

- Separation
- Concentration
- Diafiltration
- Final Purification

Each single process step in a biotechnical process requires high premium filtration units to ensure maximum product yield in all phases.

Highly sensitive biological compounds can only be produced within precisely defined environments. For this reason, downstream processing must be extremely gentle. Sartorius Crossflow technology has designed membranes with this in mind. Crossflow systems and membranes clarify your fermentation media without placing too much shear force on the individual fractions.

With our products and services, we can offer precisely defined quality standards, diverse performance possibilities, and incomparably high yield rates.



Validated process assurance

Quality that you can trust is absolutely essential when it comes to complicated production processes in the areas of biotechnology and pharmaceuticals. Whether you're concentrating, fractionating, performing diafiltration or depyrogenation, Sartorius will provide you with only validated products and systems.

The Sartococon, Sartococon Slice, and Sartococon-Slice-Disposable Crossflow filters are manufactured in accordance with current guidelines and standards, such as CGMP and USP. All individual components from other sub suppliers must undergo strict incoming inspection. The external manufacturer's facilities are audited on a regular basis. Of course, our cleanroom production is also based on precisely defined and monitored manufacturing processes.

Validation Service CONFIDENCE®

As an internationally certified company, we also provide you with support for validating your entire process chain upon request.

Training Program EXPAND®

If you would like your staff to be trained in decisive areas of crossflow filtration, that's no problem. EXPAND®, our training and seminar program, deals with all factors of the filtration process. This can influence your performance. We'll gladly send you an overview of our detailed training course listing.

Optimization Support INCREASE®

If processes don't run as stable as they should, we'll analyze the sources of error and locate the relevant filter elements. Our aim is to provide you with an optimal solution – a solution which saves time and money.

Consider us as your partner for optimized downstream processing as well as a competent advisor for setting up new crossflow systems. From engineering to high premium filter quality, you can count on Sartorius.



Filter products that are fit for your process.

Simple installation-like books on a shelf!

Economically viable crossflow filtration is very demanding on the filter elements used. In order to perform economically, membrane filters need to have:

- Low binding capacity to achieve a high yield
- High permeate flow rate for minimal product loss
- Low dead volume

Sartorius Crossflow Cassettes are designed based on application and process demands. This leads to process-oriented cassette geometry, the correct membrane material and resolute process control. This helps to minimize residue build-up and prevent blockages. Sartorius Crossflow filter elements are placed in the unit simply like books on a shelf – the seal on the sides is already in place. This simple installation significantly saves time during preparation.

Oval inlet and outlet openings provide for more flow... so your valuable product flow is unimpeded. Cleaning procedures following

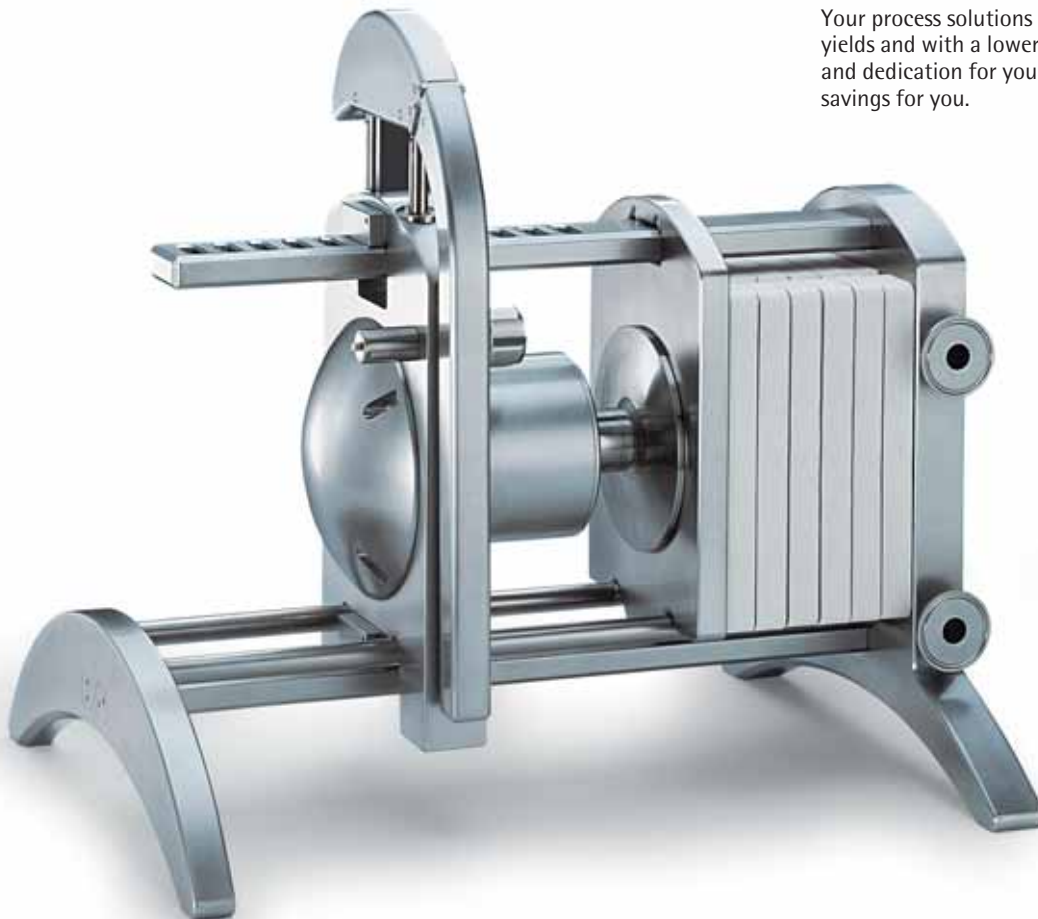
filtration can be completed in a surprisingly short amount of time. Optimized cleaning methods that have been proven effective over time prolong the life of the filters and allow each cassette for multiple use.

For each filtration task, we offer different types of cassettes. Each membrane filter unit has a material structure that is suited to the application demand. All Sartocor formats feature high flow rates.

Since scale-up is a favored practice in biopharmaceutical applications, the modular nature of our filters enable systems to be constructed in almost all dimensions. Crossflow conditions that you have perfected in the pilot phase stand up to any increase in volume – with reduced need for revalidation.





The easiest way to get started on economical downstream processing using Sartorius Crossflow systems is to set up a personal consultation from an application expert to separation expert.

Just contact us – and we'll get things started! Your process solutions will run with higher yields and with a lower cost. Our expertise and dedication for your process converts into savings for you.



Creating Value with high performance membranes

Sartocon Ultrafilter

Membrane material	Nominal molecular weight cutoff	Order numbers			
		 Sartocon Slice 200	 Sartocon Slice	 Sartocon	 Sartocube
Polyether-sulfone (PESU)	1 kD	3081460902E--SG	3051460901E--SG	3021460907E--SG	
	5 kD	3081462902E--SG	3051462901E--SG	3021462907E--SG	
	8 kD	3081463402E--SG	3051463401E--SG	3021463407E--SG	
	10 kD	3081463902E--SG	3051463901E--SG	3021463907E--SG	
	Albumin	n.a.	305146AL01K--SW	302146AL07K--SW	
	30 kD	3081465902E--SG	3051465901E--SG	3021465907E--SG	
	50 kD	3081465002E--SG	3051465001E--SG	3021465007E--SG	
Hydrosart®	100 kD	3081466802E--SG	3051466801E--SG	3021466807E--SG	3021466835E-BSW
	300 kD	3081467902E--SG	3051467901E--SG	3021467907E--SG	3021467935E-BSW
	2 kD	3081441902E--SG	3051441901E--SG	3021441906E--SG	
	5 kD	3081442902E--SG	3051442901E--SG	3021442906E--SG	
	10 kD	3081443902E--SG	3051443901E--SG	3021443906E--SG	3021443930E-BSW
	30 kD	3081445902E--SG	3051445901E--SG	3021445906E--SG	3021445930E-BSW
	100 kD	3081446802E--SG	3051446801E--SG	3021446806E--SG	3021446830E-BSW

Sartocon Microfilter

Membrane material	Pore size	Order numbers		
		Sartocon Slice 200	Sartocon Slice	Sartocon
Polyether-sulfone (PESU)	0.1 µm	3081545802E--SG	3051545801W--SG	3021545806W--SG
Hydrosart®	0.2 µm	3081860702W--SG	3051860701W--SG	3021860706W--SG
	0.45 µm	3081860602W--SG	3051860601W--SG	3021860606W--SG
Hydrosart® open channel	0.2 µm	n.a.	30518607010--SG	30218607040--SG
	0.45 µm	n.a.	30518606010--SG	30218606040--SG

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