

OptiSep[®] 11000 Filter Holder and Module

Ideal for production scale!

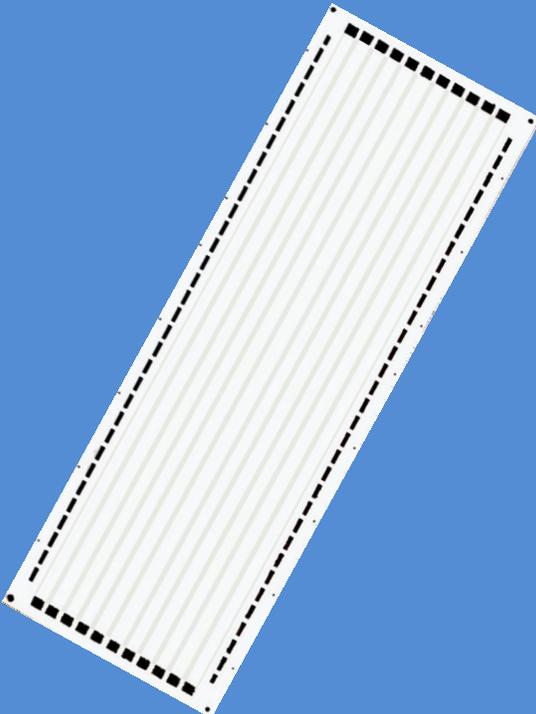
The OptiSep 11000 is the perfect production module designed to match the downstream processing needs of volumes from 25L to 2,000,000L. The OptiSep 11000 is available with both a 3" and 4" TC connection for multiple full-scale production needs.

Incorporating the patented *SmartFlow*[®] technology, OptiSep 11000 filter modules offer the improved fluid dynamics required for isolating products from high cell density fermentation applications, such as *Pichia pastoris*, *Saccharomyces sp.*, and *Escherichia coli* lysates. Utilizing two OptiSep 11000 modules simultaneously allows for the separation and recovery of cell-derived products in a single unit operation with maximum yield, minimal cost, and decreased processing time.

OptiSep filter modules are available in a broad line of membrane pore sizes, polymers, and channel heights making the OptiSep 11000 ideally suited for those looking to scale-up their process for a broad spectrum of applications from cell harvest to buffer exchange for formulation. OptiSep *SmartFlow* modules are the filtration technology that will meet your process requirements and deliver significant improvements to your downstream productivity.

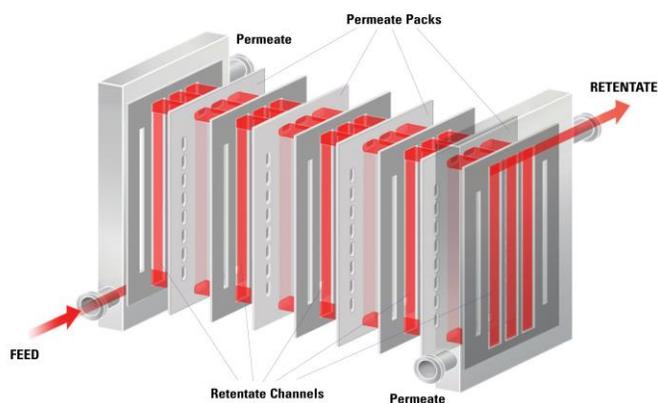
Validation and Support

In addition to its market leading Applications and Technical Support, SmartFlow Technologies also offers Validation Support. These programs provide experienced and dedicated application specialists, process engineers, and validation support engineers to assist you with process development and process optimization programs as well as integrating PuroSep[®] systems and OptiSep filter modules into your process so that you can quickly realize the benefits provided by *SmartFlow* TFF.

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- **Patented *SmartFlow*[®] technology for improved fluid dynamics**
 - **Accurate scale down to OptiSep 1000, OptiSep 3000, or OptiSep 7000**
 - **Widest range of membrane materials and pore sizes for MF, UF, NF and low pressure RO applications**
 - **Easy to clean and cost effective for reproducible results regardless of scale**
 - **Higher yields from improved design and better fluid dynamics**

Specifications

Standard Membrane Ranges Available	Regenerated Cellulose: 10. 30. 100 kDa Polyethersulfone: 4 – 1000 kDa Nylon: 0.1 – 0.8µm Composite materials: NF and low pressure RO Contact SmartFlow Technologies for a complete list of membranes available for the OptiSep 11000 Holder
Volume Range	25L to 2,000,000L
Internal dead volume	1.9L for the 3" TC connections 3.6L for the 4" TC connections
Pressure rating	150 psig (10.3 Bar)
Standard Holder Connections	Inlet and Outlet: 3" or 4" TC Four 1" TC permeate ports
Standard Channel Heights	0.375mm, 0.5mm, 0.65mm, 0.75mm, 0.875mm, 1.0mm, 1.5mm, 2mm, 3mm
Membrane Area (Four Module Sizes Available)	0.9m ² (10 ft ²), 2.4m ² (25 ft ²), 4.9m ² (50 ft ²), 9.8m ² (100 ft ²) ** Modules are stackable in both parallel and series flow paths.
Component Material	Based on supplier information, no critical components contain material from an animal origin. All material utilized in module manufacture requires an approved and acceptable certificate of conformance from the supplier, including successful test reports.
Integrity Testing	All SmartFlow Technologies modules must pass an approved integrity testing procedure based on air diffusion through a wetted module.



SmartFlow® TFF: “Delivering the promise of TRUE TFF Functionality”

The *SmartFlow*® performance advantage comes from the patented *SmartFlow* tangential flow filtration technology. The *SmartFlow* technology in the OptiSep® filter module is comprised of two primary developments: 1) unique flow channels and 2) diagonally opposed inlet and outlet ports provide uniform fluid dynamics. These advancements allow for consistent fluid distribution across the entire membrane surface. The benefits of *SmartFlow* technology include: improved cleaning, increased flux rate, true linear scalability, and increased yields resulting in more efficient downstream processes than in traditional TFF.

OptiSep 11000 Holder and Modules

Description	Catalogue Number
OptiSep 11000 Holder 3" TC Inlet/Outlet	70-900-2300
OptiSep 11000 Holder 4" TC Inlet/Outlet	70-900-2400
OptiSep 11000 Filter Module 0.9m ² (10 ft ²)	71-XXX-XXXX
OptiSep 11000 Filter Module 2.4m ² (25 ft ²)	79-XXX-XXXX
OptiSep 11000 Filter Module 4.9m ² (50 ft ²)	72-XXX-XXXX
OptiSep 11000 Filter Module 9.8m ² (100 ft ²)	74-XXX-XXXX

To Place an Order or Receive Additional Information, please contact our global headquarters:

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