

OPTISEP® 3000

Filter Holder and Module

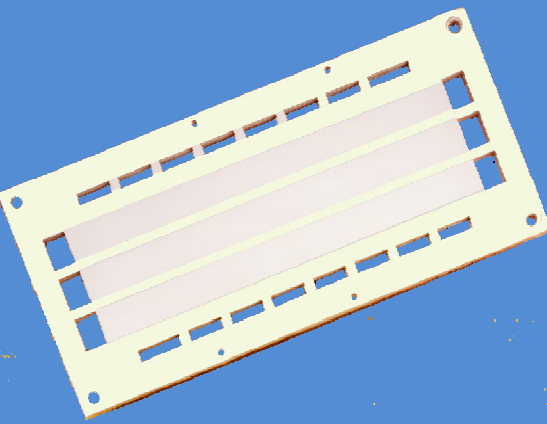
Ideal for laboratory and pilot plant!

The OPTISEP 3000 is the perfect laboratory / pilot plant module designed to match the downstream processing needs of 2 to 100L bioreactors / fermentors. With low hold-up volume and all of the design functionality of the production scale OPTISEP 11000, this module allows you to perform small-scale batches with production scale fluid dynamics. With the OPTISEP 3000 you are assured that your process development efforts will provide effortless future scale up. The OPTISEP 3000 module and holder provide optimum performance for solutions ranging from dilute proteins to viscous cell broths. Incorporating the patented *SmartFlow™* technology, OPTISEP filter modules offer improved fluid dynamics providing true linear scalability, optimized yields, decreased downstream process time, and lower costs.

OPTISEP filter modules are available in a broad range of membrane pore sizes and polymers, making the OPTISEP 3000 an exceptional laboratory and pilot scale instrument suited for process development solutions including cell harvest, protein concentration, and buffer exchange for formulation. OPTISEP *SmartFlow* modules provide the filtration technology that will meet your process requirements and deliver significant improvements to your downstream productivity.

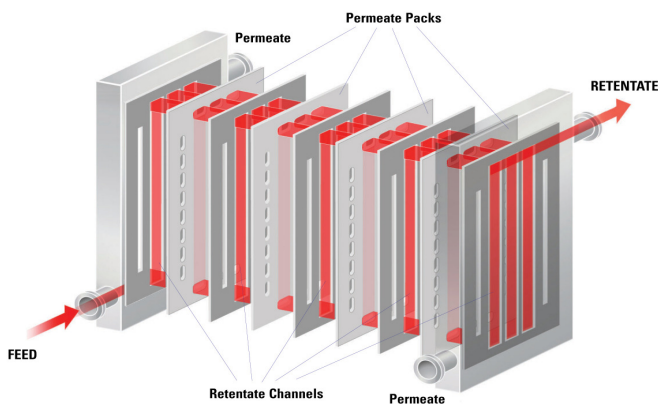
Validation and Support

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 more easily and quickly realize the benefits provided by SmartFlow-TFF.

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- **Patented *SmartFlow™* technology for improved fluid dynamics**
 - **Accurate scale up to production TFF systems or scale down for process optimization**
 - **Widest range of membrane materials and pore sizes for UF and MF 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: 5 - 1000 kDa Polyethersulfone: 1 – 1000 kDa Nylon: 0.1 – 0.8µm Composite materials: NF and RO Contact SmartFlow Technologies for a complete list of membranes available for the OPTISEP 3000 Holder
Volume Range	2L to 100L
Internal dead volume	Approximately 40ml (depending on module selected and configuration)
Pressure rating	300 psig (21 Bar)
Standard Holder Connections	Inlet and Outlet: 3/4" TC Pressure gauge ports: 1/2" TC Two 3/4" TC permeate ports
Standard Channel Heights	0.375mm, 0.5mm, 0.65mm, 0.75mm, 0.875mm, 1.0mm, 1.5mm
Membrane Area (Two Module Sizes Available)	0.09 m ² (1.0 ft ²) 0.19 m ² (2.0 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.



OPTISEP 3000 Holder and Modules

Description	Catalogue Number
OPTISEP 3000 Holder ¾" TC Inlet / Outlet	50-900-2075
OPTISEP 3000 Filter Module 0.09 m ² (1.0 ft ²)	51-XXX-XXXX
OPTISEP 3000 Filter Module 0.19 m ² (2.0 ft ²)	52-XXX-XXXX

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 modules 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.

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

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