

## Biophsep™ TFF System- MiniLab

In the biopharmaceutical industry, researchers face challenges not only in the complexity of experiments, but also in how to process experimental data efficiently and accurately. To this end, Cobetter follows the core needs of biopharmaceutical developers and launches the easy-to-operate and comprehensive Biophsep™ TFF System - MiniLab experimental-grade ultrafiltration system. This "R&D Helper" not only optimizes the experimental process, but also makes the operation easier and faster through its humanized design, greatly improving R&D efficiency. It can help researchers easily cope with various challenges in experiments and is suitable for process research or process characterization at different stages. From clarification to concentration to liquid replacement, every step is precise and efficient, ensuring the accuracy and reliability of experimental results.

Biophsep™ TFF System - MiniLab experimental grade ultrafiltration system consists of peristaltic pump, proportional pinch valve, balance, control cabinet, tablet computer and data processing software. Users can freely select and configure according to their needs, and independently develop data processing software set settings. Plan, collect data by yourself and form reports, one-click operation and other functions are integrated into one. High degree of automation, flexible and convenient to use.



## Powerful Functions

- Compatible with hollow fiber and flat membrane cassettes
- 10 process modes
- Manual/automatic mode
- One system can meet multiple needs

Function	Feed Scale	Permeate Scale	Auxiliary Pump	Proportion Control Valve
C_Mode	X◎	●	X	●
D_Mode	●	●	●	●
C/D_Mode	●	●	●	●
CDC_Mode	●	●	●	●
CFC_Mode	●	●	●	●
VA_Mode	●	●	X	●
Flush_Mode	●	X△	●	●
NWP_Mode	●	●	●	●
CL_Mode	●	X	●	●
TRA_Mode	●	●	●	●

●: Requires auxiliary component  
X: This component is not required

◎: When the alarm function needs to be enabled, a sample balance needs to be loaded.  
△: When the flushing mode selects weight as the cut-off condition, a balance is required.

## Simplified human-machine interaction

Based on Windows system operating software, it integrates powerful functions into a limited interface, including creating recipes, running experiments and viewing data. The core operations can be completed in three steps.

## Compliance

Biophsep™ TFF System - MiniLab has complete user multi-level management permissions, complete audit tracking functions, and can meet regulatory requirements such as GMP and 21CFR Part 11.

### Technical Parameters

Size	About 4200 cm <sup>2</sup>	Tubing flow range	13#	0.36-36 mL/min
Weight	25 kg		14#	1.3-130 mL/min
Voltage	100-240 V 50/60 Hz		16#	4.8-480 mL/min
Max. output current	0.9 A		25#	10-1000 mL/min
Power	200 W		17#	17-1700 mL/min
Storage temperature	< 50°C			
Hollow fiber filter	Mini / Mini Lab /Lab Recommended Process Volume < 2 L			
Cassette	0.01 m <sup>2</sup> / 0.11 m <sup>2</sup> , Recommended Process Volume < 4 L			

## Components

Main pump	Peristaltic pump: 0.1-600 rpm Diaphragm Pump 0-3000 rpm
Auxiliary pump	Peristaltic pump: 1-600 rpm
Proportion Control Valve	13# / 14# / 16# / 25# / 17#
Scale	Maximum Capacity: 20 kg Readability: 0.1 g
Single-use Pressure Sensors	Lifemeta™ SPC Pressure range: 0-30 psi Tolerance range: 0-6 psi ±2% 6-30 psi ±3% Alkali resistance: 1 mol/L sodium hydroxide solution does not exceed 48 hours
Ultrafiltration kit	Cable Tie                      Male Luer Plug T-Fitting                        Tubing Plug Lifemeta™ STT Pt-cured Silicone Tubing
Tubing	Lifemeta™ Pt-cured Silicone Pump Tubing
Reservoir kit	50/250/500 mL polypropylene conical reservoir assembly 1000 mL polypropylene reservoir kit (Optional magnetic stirrer)
Control cabinet	Siemens PLC
Computer	Surface Pro 9 Windows 10 Display: 13 inch PixeSense Flow Hard drive capacity: 256 GB RAM: 16 GB Interface: Thunderbolt= 4 USB-C®

## Ordering Information

Product name	Model	Unit
Biophsep™ TFF System	MiniLab	1/pkg
Conical reservoir assembly	500 mL	1/pkg
Conical reservoir assembly	250 mL	1/pkg
Conical reservoir assembly	50 mL	1/pkg
Reservoir kit	1L	1/pkg
Reservoir stand	250 / 500 mL	1/pkg



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