

elab[®]

tangential flow filtration

Up to 0.5 m²



TECNIC

High-performance automatic **tangential flow filtration** system for superior results. The choice for research, development and small production purification



Multi Use TFF - Cassette

Multi Use TFF - Hollow Fiber

Engineered to meet the exacting standards of biotechnological downstream processes, the eLAB® TFF fully automatic systems stand out for their **exceptional filtration performance**, reaching a maximum of **0.5 m²** of total membrane surface area. This ensures unparalleled throughput and efficiency during continuous operations, facilitated by a carefully designed tangential flow filter that minimizes membrane clogging and fouling. It's also capable of handling demanding downstream processes using ultrafiltration, microfiltration, or nanofiltration filter modules in cassette, hollow fiber and ceramic configurations, allowing to choose the most appropriate filter module configuration based on specific requirements.

The core of the system lies in its central control module, powered by an **industrial-grade PLC**, providing precise control over operations to diafiltrate and concentrate the product. Complemented by a robust stainless-steel vessel and advanced sensors, the system guarantees a stable and reliable filtration process.

The tangential filter enables fluid to move parallel to the filter, allowing smaller components to pass through while retaining larger ones. With an impressive filtration capacity of **up to 0.5 m²**, it ensures optimal performance. The tank, meticulously crafted from 316 L stainless steel, is available in 5L volume and has five ports for various functionalities.

The integrated control unit seamlessly incorporates TECNIC's proprietary **eSCADA system**, additional pumps, and an aeration system. Elevate your filtration processes with the precision and innovation embodied in the eLAB® TFF, setting a new standard for professionalism in biotechnological applications.

Key Functionalities

eLAB® TFF

Filter type	Membrane cassette / Hollow-Fiber
Filtration surface area	0.1 -0.5 m ²
Stainless steel vessel	5 and 10 L
TMP configuration	Included
Concentration mode	Included
Diafiltration mode	Included
Water flux test mode	Included
Filling mode	Included
CIP mode	Included
Level control	Included
Pressure measurement	Included
eADVANCED software	Included
OPC server	Included
Recipes management	Included
User's management	Included
Reports	Included
TECNIC OPC server	Included
Four-piston diaphragm pump for recirculation	Included
pH, conductivity and Flow sensors	Optional

Technical Specifications

Overall dimensions (WxHxD) (mm)	780x909x532
Control unit weight approx (including piping) (Kg)	~35
Power supply	1xphase, 1xneutral, 1xground 230VAC 50Hz 7A
Electrical interfaces	1x ethernet 1x WLAN 2x USB

Functional Specifications

Pumping system	Low shear four-piston diaphragm pump
Pumping capacity (L/h) @ 2 barg	Up to 800
Dead volume (ml)	~300
Pressure sensor	-1 - 4 barg
Level sensor	Radar guided sensor Min level: 0.01 L Max level: 5.2L Resolution: 0.01 L
pH sensor	Biocompatible (FDA) electrolyte filled 0 -14 Ph



Contact

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