

CLAB TFF

Downstream process

CLAB TFF is a tangential flow filtration equipment designed at laboratory scale for the most demanding downstream processes and product recovery within working volume of vessel from 5 to 10L.



👁️ An easy upgrade to PILOT scale.



HOLDER

Made of stainless steel and **build-in at our facilities.**

Adaptable to a **large number of membranes, ceramic and hollow fiber solutions.**

From 0.1 to 2m² filtration surface.

AUTO CIP

Full automated system of valves prepared to carry out **CIP cycles** through the entire equipment (vessel, pipping and filtration module).



PERISTALTIC PUMPS

2 in 1 concept, **multiway pumps.**

All the pumps are **variable** and are configured so that they can also work as **fixed** ones.

CONFIGURATION

*Other customized options available

CLAB TFF

PILOT TFF

PROD TFF

VESSEL

Working Volume (L)*

5 - 10

10 - 100

100 - 1000

Single Wall



Double Wall



Single Use



Weight Control



FILTER

Cassette



Ceramic



Hollow Fiber



CONTROL

Level



Weight



Flow (2x)



Pressure (3x)



pH



Conductivity



Agitation



Temperature



SOFTWARE

SCADA Basic



SCADA Advanced



CFR21.11



Remote Access



DOCUMENTATION

GMP



● STD ○ OPT

CLAB TFF | Control Unit

| WEIGHT AND DIMENSIONS | | |
|-------------------------|--|--|
| Weight | ~ 30 kg | |
| Dimensions | 500 x 535 x 500 mm | |
| HARDWARE | | |
| Housing | Stainless Steel, AISI 316L (SF4 according to ASME BPE) | |
| Display | Capacitive Touch Screen, 10", glass | |
| Status indicator light | Green: OK Orange: warning Red: alarm | |
| SOFTWARE | | |
| SCADA Basic | Included | |
| SCADA R&D+ | Optional | |
| SCADA Advanced | Optional | |
| CFR21.11 | Optional | |
| Remote access | Optional | |
| DOCUMENTATION PACKAGE | | |
| GMP | Optional | |
| BUILT-IN PUMPS | | |
| Fixed Speed | 1x fixed speed: 90rpm | |
| Variable Speed | 1x variable speed: 100 rpm | |
| Recirculation Pump | 1x sanitary piston pump: up to 1.2 m3/h | |
| PROCESS CONTROL SENSORS | | |
| Level | Guided radar sensor | |
| Flow sensor | 2x Flow sensor for feed/permeate | |
| Pressure | 3x Pressure sensor for feed/retentate/permeate | |
| Temperature | Optional (Pt100/Pt1000) | |
| Load Cells | Optional | |
| pH Sensors | Optional | |
| Conductivity | Optional | |
| Stirred Agitation | Optional | |
| TEMPERATURE MODULE | | |
| Single wall | No temperature control. Visualization | |
| Double wall | Thermostat system with external chiller for cooling | |

| TANGENTIAL FLOW FILTRATION SYSTEM | | |
|------------------------------------|--|--|
| Holder | Holder by TECNIC / Sartorius&Pall&Millipore compatible | |
| Porous membrane | Microfiltration / Ultrafiltration / Nanofiltration | |
| Cut off | 0.2 0.45 / 2 5 10 30 100 300 kDa | |
| Filter area | 0.1 - 2 m2 | |
| Cassettes | 1 to 5 | |
| Minimum recirculation volume | ~ 150 mL | |
| Maximum inlet pressure (SS piping) | 4 bar | |

| OTHER FILTRATION MODULES | | |
|--------------------------|----------|--|
| Ceramic Membranes | Optional | |
| Hollow fiber | Optional | |

| UTILITIES | | |
|--------------|--|--|
| Power supply | 230 V (EU) | |
| Gases | 1 bar | |
| Water | Water supply pressure from external chiller, 1 bar | |

CLAB | Vessel

| | |
|---|---|
| Material | Wetted parts: Stainless Steel AISI 316L (SF1 according to ASME BPE) Other parts: Stainless Steel AISI 304L (SF4 according to ASME BPE) |
| Size (working volume) | 5 L (0.8 – 5 L) - 10L (2 -10L) |
| Dimensions (diameter x height) <i>Customiza volume available</i> | Ø190 x 427 mm |
| Bottom | Conical, 45° |
| Single Wall | Without temperature control loop |
| Double wall | Optional |
| Lighning | Optional |
| Sight glass | Optional |
| Single Use | Optional |



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TECNIC
BIOPROCESS EQUIPMENT MANUFACTURING

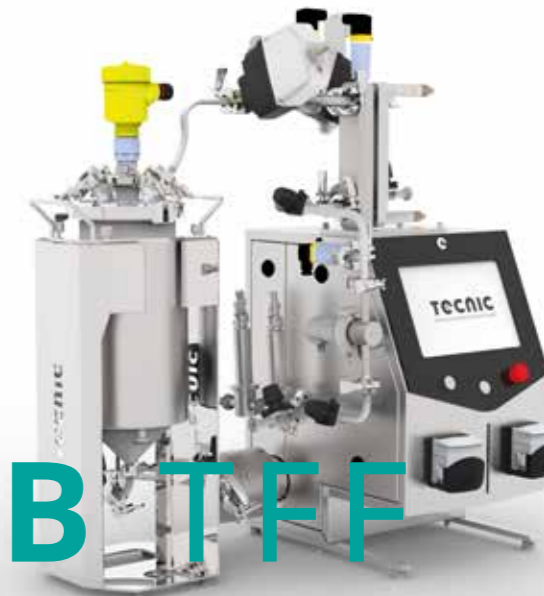
CLAB TFF

DATA SHEET



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