SCILOG® TFF SYSTEMS

Fully Automated Tangential Flow Filtration System.

SciLog® TFF Systems are automated bioprocessing skids for tangential flow filtration applications.

Designed for ease-of-use and utilizing single-use assemblies and sensing technology, the SciLog® TFF Systems offer an effective solution for ultrafiltration, diafiltration and clarification.

The systems are compatible with any brand of TFF hollow fiber or cassette filter, meaning they can be tailored to your process specifications. The systems and consumables can be designed in tandem to optimize the filtration process and minimize product losses.

SciLog[®] TFF Systems incorporate SciPres[®] II pressure sensor technology to monitor transmembrane pressure and protect against overpressurization throughout the process.

Features and Benefits

- Configurable recipe creation to control the process in single-step or multi-step mode
- SIEMENS TIA Portal based control system
- GMP Compliance, including FDA 21 CFR Part 11 and EudraLex Annex 11
- Capable of processing at flow rates of 0.33-83 L/min depending on specification (options of peristaltic and diaphragm feed pumps available)
- Operating pressure up to 4 barg
- Ultrafiltration, microfiltration and diafiltration capabilities as standard
- Touch-screen HMI with intuitive graphical interface
- User-friendly workflow
- Fully programmable alarms and interlocks
- Easy integration into DCS/SCADA systems
- Direct connection to scales and mixers
- User access level control via local or active directory
- Minimizes retentate vessel size using batch fed concentration mode
- · Designed with optimal cleanability in mind





SciLog® Tangential Flow Filtration System



Control System

SciLog® TFF Systems can be operated as a standalone system with process control, data collection and user levels remaining on the local system.

They can also be connected to DCS systems using OPC or Ethernet IP communication protocols for Active Directory and parameter monitoring.

The system supports compliance and regulatory requirements for GMP.

Specifications

Manifold Design

SciLog[®] SELECT GO Single-Use Assemblies offer the speed of a standard single-use solution with the design flexibility to meet the individual needs of your process.

Manifolds can be designed with either a cassette holder or hollow fiber connections. Manifolds can be supplied gamma irradiated.

Model	TFF Low Flow		TFF High Flow	
Ритр Туре	Diaphragm	Peristaltic	Diaphragm	Peristaltic
Recirculation Pump Model	Quattroflow 1200SU 5° Cam	Watson Marlow 630	Quattroflow 4400SU 6° Cam	Watson Marlow 730
Recirculation Pump Flow Range (L/Min)	0.33 - 20	0.5 - 22	1.0 - 83	0.5 - 45
Recommended Membrane Area	Up to 5 m ²	Up to 5 m ²	Up to 20 m ²	Up to 10 m ²
Filter Type	Flat Sheet Cassette or Hollow Fiber		Flat Sheet Cassette or Hollow Fiber	
Maximum Pressure	4.0 barg	1.5 barg	4.0 barg	1.5 barg
Diafiltration Pump Model	Watson Marlow 630		Watson Marlow 630 or 730	
Permeate Pump Model	Watson Marlow 630 (Optional)		Watson Marlow 630 (Optional)	
Permeate Totalizer - Single Use Ultrasonic Flow Meter	BioProTT Flow SU / Weighstation		BioProTT Flow SU / Weighstation	
Flow Meter	BioProTT FlowSU		BioProTT FlowSU	
Pressure Sensor Connections (DIN)	3		3	
Pressure Sensor Type	SciPres [®] II		SciPres [®] II	
Conductivity Sensors	SciCon® II		SciCon [®] II	
# of Automated Inlet Valves	2		2	
# of Automated Permeate Valves	1		1	
Software Compliance	21 CFR Part 11, EudraLex Annex 11		21 CFR Part 11, EudraLex Annex 11	
User Interface	SciSoft - WinCC based		SciSoft - WinCC based	
Control System	SIEMENS S7 -1500 with TIA Portal		SIEMENS S7 - 1500 with TIA Portal	
Connection To Plant Control System	OPC, Ethernet		OPC, Ethernet	
Pneumatic Requirements	6 barg Instrument Air or Nitrogen		6 barg Instrument Air or Nitrogen	

Documentation and Support

Included with System

- Factory Acceptance Testing (FAT) and Site Acceptance Testing (SAT)
- User training during FAT and SAT
- Declaration of Conformity
- Installation, Operation and Maintenance Instructions (IOMI)
- Piping and Instrumentation Diagram (P&ID) and general arrangement drawings
- Electrical schematic
- Calibration certificates
- Critical spares list with manuals or datasheets
- Frame material certificates
- GAMP[®] document package including:
- Functional Design Specification (FDS), Hardware Design Specification (HDS), Software Design Specification (SDS)

Additional Options

- Servicing
- On-site training
- IQ/OQ document package
- IQ/OQ execution
- PQ document package

Please contact your local Parker representative to discuss how these systems can be configured for your needs

Parker Hannifin Manufacturing Ltd **Bioscience Filtration EMEA** Durham Road, Birtley, Co. Durham, DH3 2SF, England email: bioprocess.systems@parker.com

www.parker.com/bioprocessing

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