SHIMADZU
Excellence in Science

Sepragen Chromatography Systems

Sepragen Product Catalog

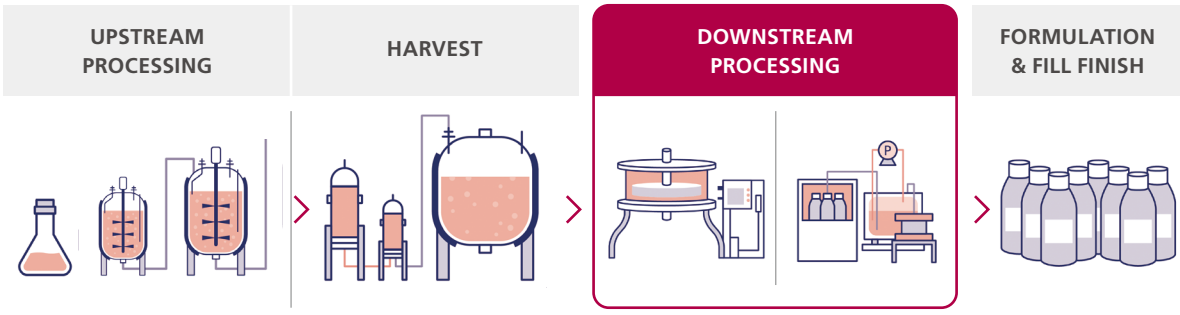


Optimizing Downstream Bioprocessing

Sepragen Corporation provides breakthrough products and processes to the biotechnology and nutraceutical industries for their process development and manufacturing needs.

Designed for demanding purification processes, Sepragen solutions deliver high yield, high productivity, and predictable scale-up, while offering a compact footprint, lower buffer consumption, and cost-efficient processing.

Proven in the manufacture of more than 30 FDA-approved drugs, Sepragen technologies support a wide range of applications, including proteins, peptides, vaccines, gene therapy vectors, monoclonal antibodies, and enzymes, as well as nutritional ingredients and other specialized separation processes.



MAXIMIZE YIELD

High-capacity media and optimized systems deliver high recovery and efficient purification.

BOOST PRODUCTIVITY

High-performance systems enable greater throughput in a compact footprint.

ENABLE SEAMLESS SCALE-UP

Predictable performance supports seamless scale-up from laboratory development to commercial production.

OPTIMIZE PROCESS COSTS

Efficient processing can lower buffer consumption, space requirements, and operating costs.

SEPRAGEN

Innovators in Bioprocessing

https://sepragen.com

Sepragen Corporation, based in Union City, California, provides innovative bioprocessing technologies that enable efficient process development, scalable manufacturing, and improved productivity for the biotechnology industry.



Sepragen Product Portfolio

Sepragen offers a comprehensive portfolio of chromatography and purification technologies designed to address diverse downstream processing requirements. From radial flow chromatography columns and purification systems to column packing equipment and integrated downstream solutions, the portfolio provides the tools needed to support purification workflows across different scales and process configurations.



Radial Flow Columns (RFC)

Scalable column solutions for downstream purification



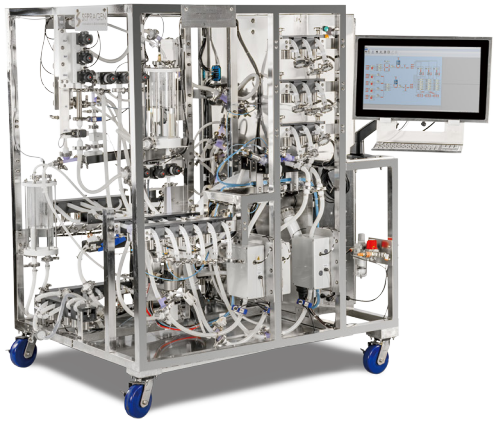
Chromatography Purification Systems

Single-use and multi-use platforms



Column Packing Systems

Efficient packing solutions for reliable column preparation



Integrated Downstream Solutions

Supporting operations from process development to commercial-scale production

SuperFlo® Columns

Reliable Performance for Your Bioprocess Purification

- True Linear Easy Scale-up
- Validated Packing Method
- High Flow Rates
- Low Back Pressure
- Higher Yields
- Superior Distribution
- Consistency in Performance
- High Productivity

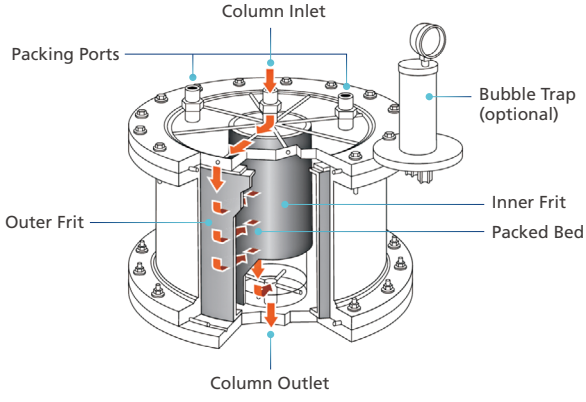


SuperFlo columns are based on unique radial-flow geometry to redefine the possibilities of low pressure, high-throughput preparative and bioprocess chromatography. SuperFlo columns enable linear scale up in small footprint and are available in sizes ranging from 50 mL for R&D up to the 500 L industrial production range. They are available in stainless steel and FDA-approved acrylic and can be custom pre-packed with the user's resin.

How SuperFlo Columns Work

The SuperFlo column consists of two concentric porous cylinders that form the column bed. The space between the inner and outer frits is packed with the chromatographic resin.

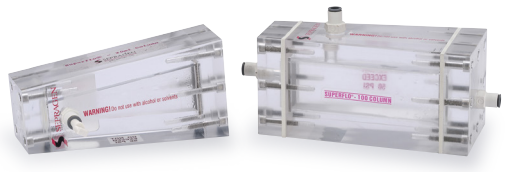
The eluent or sample enters through the column inlet at the top of the column. The top lid acts as a distribution head, directing the liquid into the space between the outer column body and the outer frit. The liquid is distributed over the entire height of the column and flows horizontally through the packed bed from the outer frit toward the inner core.

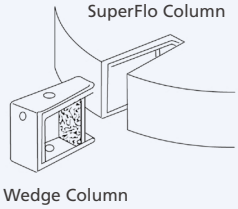


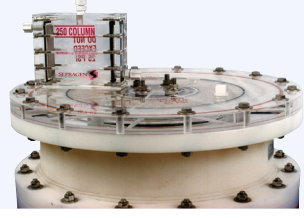
It then passes into the space between the inner frit and the collector rod and exits through the column outlet at the bottom. The effective bed height is the distance between the inner and outer frits.

Simple Scale-Up Using the Wedge Column

The Wedge column is designed for scale-up studies and features the same radial-flow structure as the SuperFlo column. It enables seamless scale-up to production scale. The Wedge column can also be used to investigate challenges encountered at production scale by conducting downscale studies using the wedge column with a small-scale system.







How to Choose SuperFlo Columns

Purpose/Use	Name	Volume	Bed Height/Depth	Pressure	Constructions	
					Acrylic	SS
Lab/ R&D						
	SuperFlo 50	50 ml	3.5 cm	50 psi	Yes	No
	SuperFlo 100	100 ml	3.5 cm	50 psi	Yes	Yes
	SuperFlo 250	250 ml	3.5 cm	50 psi	Yes	Yes
	SuperFlo 500	500 ml	3.5 cm	50 psi	Yes	Yes
	SuperFlo 1000	1000 ml	3.5 cm	50 psi	Yes	Yes
	SuperFlo 1500	1500 ml	3.5 cm	50 psi	Yes	Yes
Pilot						
	SuperFlo 2L	2 L	5 cm	50 psi	Yes	Yes
	SuperFlo 3L	3 L	5 cm	50 psi	Yes	Yes
	SuperFlo 5L	5 L	5 cm	50 psi	Yes	Yes
	SuperFlo 7.5L	7. 5 L	5 cm	50 psi	Yes	Yes
	SuperFlo 10L	10 L	5 cm	50 psi	Yes	Yes
Process						
	SuperFlo 10L	10 L	10 cm	50 psi	Yes	Yes
	SuperFlo 20L	20 L	10 cm	50 psi	Yes	Yes
	SuperFlo 30L	30 L	10 cm	50 psi	Yes	Yes
	SuperFlo 40L	40 L	10 cm	50 psi	Yes	Yes
	SuperFlo 50L	50 L	10 cm	50 psi	Yes	Yes
	SuperFlo 60L	60 L	10 cm	50 psi	Yes	Yes
	SuperFlo 70L	70 L	10 cm	50 psi	No	Yes
	SuperFlo 80L	80 L	10 cm	50 psi	No	Yes
	SuperFlo 90L	90 L	10 cm	50 psi	No	Yes
	SuperFlo 100L	100 L	10 cm	50 psi	No	Yes
Industrial						
	SuperFlo 150L	150 L	15 cm	50 psi	No	Yes
	SuperFlo 350L	350 L	15 cm	50 psi	No	Yes

QuantaSep® Chromatography Systems

Flexible, automated chromatography for biopharmaceutical purification

The QuantaSep family combines powerful and flexible chromatography systems with intuitive, compliant software, providing a consistent platform across single-use, multi-use, and continuous processing. Compact, scalable designs and integrated process automation help simplify purification workflows while reducing operational complexity.



Multi-use Chromatography Systems

The Trusty QuantaSep line of revolutionary compact multi-use chromatography systems are designed to provide full automation and traceability for cGMP-compliant purification processes.



Single-Use Chromatography Systems

The Adept QuantaSep line of chromatography systems are fully integrated single-use systems designed to exchange the complete fluid path and sensor cells in a fast and simple way.

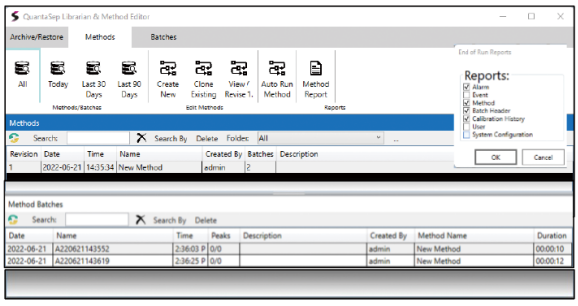


Continuous Chromatography Systems

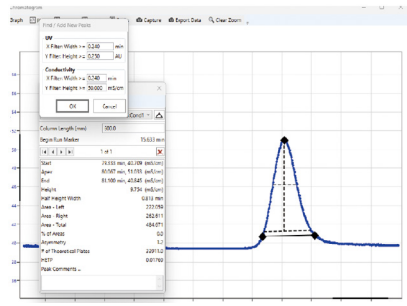
The Fusion QuantaSep is available in 2-column or 3-column configurations for continuous capture and automated flow-through processing, integrating all chromatographic steps and nanofiltration into a single straight-through skid.

QuantaSep Software

QuantaSep Librarian & Method Editor – clone, revise, and auto-run methods, with end-of-run reports for alarms, events, and batches.



Real-time chromatogram view with peak detection and UV/conductivity overlays for Instant Data Analysis against baseline.



Trusty Features

Covering QuantaSep 100, 1000, 1000 LX, 1800.

- Flow rates from 5 to 1,800 mL/min
- 12 selectable buffer inlets
- 3 selectable columns
- Column Forward / Reverse / Bypass operation
- 10 selectable fractions
- Sanitary design
- Positive displacement pumps
- Gradient capability
- Integrated process monitoring
- Active air detection and ejection
- GMP-compliant reporting and data archiving

Adept Features

- Flow rates from 10 mL/min to 60,000 mL/min
- 12 selectable buffer inlets
- 6 selectable fractions
- Column Forward / Reverse / Bypass operation
- Single-use removable flow path
- Sanitary design
- Gradient capability
- Integrated process monitoring
- Active air detection and ejection
- GMP-compliant reporting and data archiving
- Fusion Features

Fusion Features

- Continuous chromatography operation
- 2-column (FT) or 3-column (CC) configuration
- In-line buffer preparation and blending
- Continuous multi-column processing
- Sanitary design
- Automated process control
- Integrated process monitoring
- Active air detection and ejection
- High-throughput manufacturing support
- GMP-compliant reporting and data archiving

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