



SepaBean™ machine U

The entry-level
system designed to
streamline your flash
chromatography
workflow.



Simplify your purification, maximize your efficiency!

Santai Science Inc.

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Product Overview

The SepaBean™ machine U, an entry-level model, offers an intuitive and versatile solution for chromatography with the full capabilities of SepaBean™ control software. Designed to handle everyday separation and purification tasks, this affordable system efficiently meets the demands of both normal and reversed phase separations, providing reliable performance for users of all experience levels.

Key Features

- Cost Effective Solution**
 Provides high-quality purification solutions within budget.
- Wireless Control and Operation**
 Allows remote control via mobile devices, ideal for light-sensitive or isolated experiments.
- Easy Flash Method Development**
 Optimizes and transfers separation conditions from HPLC and TLC for efficient, scalable purification.
- Optional ELSD Detector**
 Optional ELSD expands detection capabilities to cover a wider range of sample types, including non-UV-active compounds.



Main Characteristics

	Model U100	Model U200
Maintenance Free Pump	Two Solvent Lines	
	100	200
	Maximum Flow Rate (mL/min) & Pressure Resistance (psi)	

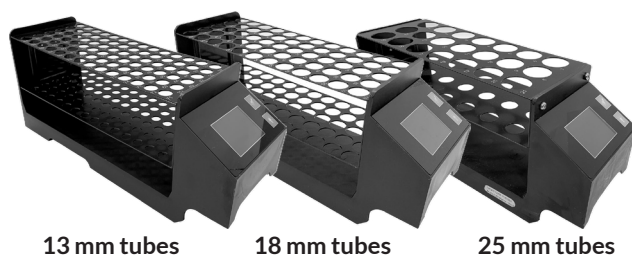
Equipment Specifications

Characteristics	Specifications
User Interface	4.3 inches screen (≈ 10 cm)
Control Device	Wireless operation through iPad®
Flow Rate Range	<ul style="list-style-type: none"> Model U100: 1 - 100 mL/min Model U200: 1 - 200 mL/min
Maximum Pressure	<ul style="list-style-type: none"> Model U100: 100 psi (6.9 bar) Model U200: 200 psi (13.8 bar)
Detectors	<ul style="list-style-type: none"> DAD 200 - 400 nm UV Detector DAD 200 - 800 nm UV/Vis Detector ELSD Universal Detector (optional)
Spectral Display	Single, dual, or all-wavelengths
Pumping System	Maintenance free ceramic pump
Number of Solvents	Binary gradient, two (2) solvents
Gradient Types	Isocratic, linear, and step gradients
Column Sizes	4 g - 330 g Up to 1.6 kg with adapters
Sample Loading Capacity	4 mg - 160 g

Characteristics	Specifications
Air Pump Module	Included (to purge solvent residues)
Certification	CE
21-CFR Part 11 Compliance	The control software meets FDA requirements for system safety
Collection Module	LCD display for intelligent identification of test tube racks
Fraction Collection	All, waste, threshold, slope, or time
Fraction Collector	<ul style="list-style-type: none"> 13, 15, 16, 18, or 25 mm tubes French square 250 or 500 mL bottle or large collection bottle (optional)
Safety Configuration	Intelligent liquid and pressure alarm
Sample Injection	Liquid and solid sampling
Smart Column Holder	Suitable for 4 to 330 g flash columns
Dimensions (W x D x H)	44 x 46 x 54 cm (17.3 x 18.1 x 21.3 in)
Weight	30 kg (66 lbs)

Fraction Collector

The SepaBean™ machine U features a fraction collector with tube racks and LCD displays, enabling easy tracking of collected fractions. Racks are available for 13, 15, 16, 18, and 25 mm tubes. Optional accessories include 250 mL and 500 mL French square bottles, along with larger collection bottles for added flexibility.



Optional Universal ELSD Detector

The SepaFlash™ FP LT-ELSD is a universal low-temperature evaporative light scattering detector ideal for analytes without chromophoric or electroactive groups, including carbohydrates, lipids, and polymers. Its low-temperature technology ensures high sensitivity, low noise, and optimal detection of thermally unstable or semi-volatile compounds. Compatible with all SepaBean™ models, this detector enhances performance in complex separations across various systems.



Cartridges Compatibility

The SepaBean™ machine U is compatible with SepaFlash™ and iLOK™ cartridges ranging from 4 g to 330 g, without requiring adaptors. For larger sizes (up to 1.6 kg), an adaptor is required. Cartridges are available with various adsorbents, including silica (bare and bonded phases like C18, NH₂, etc.), providing versatile application options. *Note: the equipment is designed to be compatible with cartridges from other brands, offering flexibility for diverse applications. Please note that columns shown below are not at scale.*

SepaFlash™ Standard Series
(small and large scale)



iLOK™ & iLOK™-SL Series
(empty or pre-packed)



SepaFlash™ HP & Bonded Series
(spin-welded columns)



Ordering Information

Item Number	Description
SepaBean™ machine U100	
SPBU1000100-0	With fixed wavelength (254 nm) DAD UV detector
SPBU1000100-1	With 200 - 400 nm DAD UV detector
SPBU1000100-2	With 200 - 800 nm DAD UV/Vis detector
SepaBean™ machine U200	
SPBU2000200-0	With fixed wavelength (254 nm) DAD UV detector
SPBU2000200-1	With 200 - 400 nm DAD UV detector
SPBU2000200-2	With 200 - 800 nm DAD UV/Vis detector
Optional ES�D Detector and Start Kit	
DMV10212	Low temperature evaporative light scattering (ELSD) detector
DMV10070	Low temperature evaporative light scattering (ELSD) detector and start kit
DMV10071	Low temperature evaporative light scattering (ELSD) start kit only including adapters, flow-splitter valve, and tubing

Item Number	Description
Fraction Collector Tube Rack	
FCV10239	Tube rack for 13 mm diameter tubes [13 x 150 mm, 84 tubes per rack]
FCV10209	Tube rack for 15 mm diameter tubes [15 x 150 mm, 84 tubes per rack]
FCV10735	Tube rack for 16 mm diameter tubes [16 x 150 mm, 60 tubes per rack]
FCV10210	Tube rack for 18 mm diameter tubes [18 x 150 mm, 60 tubes per rack]
FCV10240	Tube rack for 25 mm diameter tubes [25 x 150 mm, 21 tubes per rack]
French Square Bottle Rack Holding 12 Bottles	
FCV10043	250 mL square bottle tray
FCV10042	500 mL square bottle tray
Luer Connector Kit for Large Columns (Adaptor)	
BLL-0304	Luer Connector kit for large columns (800 g, 1600 g, 3 kg, and 5 kg)



SepaBean™ Family

machine U

(entry-level)



machine T

(best-seller)



machine

(standard version)



machine 2

(medium pressure)



machine L

(scale-up)



SepaFlash™ Columns

Standard Series



Large Size Series



HP, Bio & Bonded Series



iLOK™ Series

(empty & pre-packed)



iLOK™ - SL Series

(Solid-load cartridges)



Ultra-Pure Bare Silica Gels



Ultra-Pure Bonded Silica Gels



TLC Plates



Other SepaFlash™ Products



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