

ACCQPrep® SFC

Preparative SFC

Green Preparative SFC: Chiral or Achiral Separations in a Single, Compact Solution

The ACCQPrep SFC is a compact system that simplifies method complexity and ensures successful separations for users of all experience levels. As the only system to enable both bulk collection from stacked injections and multi-sample open-access with an optional SFC AutoSampler (2x2 or 4x2), the ACCQPrep SFC offers versatility without limitations, all in the smallest Prep SFC footprint on the market.

Stacked injections increase throughput by performing additional injections while compounds from previous injections elute. The PeakTrak® software's Stacked Injection Wizard intelligently determines cycle time and fraction collection settings, automatically suggests "time windows" for collection of desired peaks, while providing injection simulation to assist the user in visualizing the effect of method modifications.

Because the dynamic nature of supercritical CO₂ requires accurate flow control and back pressure regulation, the ACCQPrep SFC has a robust CO₂ pumping system paired with an advanced mass-flow controller and automated backpressure regulation. Prior to fraction and waste collection, the patented Gas-Liquid Separator (GLS) minimizes carryover, resists clogging, and permits high cosolvent flow. Finally, a standard fractionation valve sorts collection into up to eight vessels or output to a 2x2 or 4x2 SFC AutoSampler for full open-bed fraction collection with >95% recovery up to 200 mL/min.

The ACCQPrep SFC's simple PeakTrak software interface is navigated via a high-resolution, integrated 15" touchscreen. Method setup includes gradient, temperature, and backpressure parameters, while the software automatically determines GLS and fraction collection delay settings based on cosolvent composition. Additional practical software features include solvent level monitoring to prevent ruined separations, waste level sensing to prevent overflows and AutoSampler recognized RFID collection racks to eliminate missed or overfilled test tubes.



Shown with available SFC AS 2x2 AutoSampler



ACCQPrep® SFC

- **Green Chromatography**
CO₂ is affordable, environmentally friendly and reduces "strong" solvent use by up to 95%
- **Ultra Compact**
Do more in less space with a smaller footprint than competing systems
- **Intuitive**
PeakTrak® software removes the complexity of method development

Standard Features:

- **Flow rates** from 50 to 200 mL/min for use of 2 and 3 cm columns
- **Four different cosolvent options** with composition from 5 to 70% for elution of more polar compounds than other systems
- **Column oven** with selection valve for up to six columns
- **Autoinjector** to enable multiple injections of a single sample or stacked injection workflow
- **Choice of UV or UV-Vis** PDA detectors standard

ACCQPrep SFC

SYSTEM

System Flow Rate Range	50–200 mL/min
Gradient Linearity	± 1%
System Co-Solvent Range	5–70%
System Backpressure Range	100–160 bar
Maximum System Operating Pressure	414 bar
Mass Flow Controller	Standard
Recommended Column Sizes	2 and 3 cm I.D.
Column Selector Valve	Standard; 6 columns (2 or 3 cm x 25 cm or less)
Column Oven (Temp range)	Standard (+5 °C above ambient to 70 °C)

CO₂ DELIVERY PUMP

CO ₂ Inlet Pressure	55–140 bar (3–10 °C)
Flow Rate Range	20–200 g/min

CO-SOLVENT PUMP

Flow Rate Range	0.5–165 mL/min
Number of Co-Solvents	4 Co-Solvent Inlets
GLS Makeup Pump	Standard; Automated up to 5 mL/min

SAMPLE INTRODUCTION

Autoinjector	Standard 5 mL syringe; allows multiple injections from a single vessel
Sample Injection	Modifier Stream Injection via Sample Loop (5 mL standard); other sizes may be installed and configured on the system
Stacked Injection Capability	Standard

DETECTOR

Detector Options	Variable UV PDA (200–400 nm) or Variable UV-VIs PDA (200–800 nm)
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SYSTEM DIMENSIONS

Component Dimensions (cm W x D x H)	Base ACCQPrep SFC: 41 x 56 x 73 SFC AS 2x2: 34 x 56 x 66 w/enclosure: 40 x 69 x 76 SFC AS 4x2: 58 x 56 x 66 w/enclosure: 64 x 69 x 76
Total System Benchtop Dimensions (cm W x D)	ACCQPrep SFC w/SFC AS 2x2 Enclosure: 81 x 69 ACCQPrep SFC w/SFC AS 4x2 Enclosure: 115 x 69

FRACTIONATION COLLECTION

Fractionation Valve	Standard; up to 8 user containers	
Fraction Pooling Ability	Standard	
Open Bed Fraction Collector	Optional with ACCQPrep SFC 2x2 or 4x2 AutoSampler	
Vented Enclosure for AutoSampler	Optional	
AS choice	SFC AS 2x2	SFC AS 4x2
Number of Collection Racks	Up to 2	Up to 4
Maximum number of collection tubes	16 x 150mm: 150	16 x 150mm: 300
	18 x 150mm: 140	18 x 150mm: 280
	25 x 150mm: 60	25 x 150mm: 120
	480 mL bottles: 12	480 mL bottles: 24

NUMBER OF SAMPLE RACKS

Maximum number of sample vessels	13 mm tubes:	28
	28 mm scintillation vials:	12
	125 mL square bottles:	4

CONTROL SOFTWARE

Integrated Screen and Processor	15" High Res Touchscreen; Internal CPU; Red Hat Linux
Software	PeakTrak
Free Software Updates	Yes (as available)
Gradient Optimization	Standard; Focused Gradient Generator
Stacked Injection Wizard	Standard
Scale Up Wizard	Standard

MISCELLANEOUS

Active Cosolvent and Waste Level Sensing	Standard
RFID Rack Sensing	Standard with ACCQPrep SFC 2x2 or 4x2 AutoSampler

SELECTION INFORMATION

ACCQPrep SFC System with 200–400 nm–UV PDA Detector	685260001
ACCQPrep SFC System with 200–800 nm–UV-Vis PDA Detector	685260002
Sampler/Open-Bed Fraction Collection Options	
ACCQPrep SFC 2x2 AutoSampler. Includes sample load rack (default is for 13mm test tubes) and one set of collection racks (default is 18 x 150 mm tubes–117 V units; 16 x 150 mm tubes–234 V units).....	685267012
ACCQPrep SFC Autosampler 4x2. Includes sample load rack (default is for 13mm test tubes) and two sets of collection racks (default is 18 x 150 mm tubes–117 V units; 16 x 150 mm tubes–234 V units)	685267013
ACCQPrep SFC External Chiller	605267014
Vapor Enclosure for ACCQPrep SFC 2x2 Autosampler	605267015
Vapor Enclosure for ACCQPrep SFC 4x2 Autosampler	605267016