

Isolera™

FLASH Purification System



Isolera™—high performance FLASH purification system now available with UV-VIS detection

Intelligent features enable better separations in less time with fewer resources

Isolera is a new, more compact, flash purification system with intelligent features that enable chemists to easily achieve better separations. The advanced TLC-to-gradient feature automatically creates elution gradients and suggests cartridge and sample size. Collect fractions using two wavelengths, adjust the flow rate from 1 to 200 mL/min as needed and use up to four solvents in a single gradient, for maximum purity and yield.

Faster Flow Rates

Dramatically shorten purification run-times. For example, a 10.5 g sample was purified at 200 mL/min on a 340 g Biotage SNAP cartridge in less than 19 minutes, see Figure 1. If this same separation had been performed using a typical flash system with a 100 mL/min flow rate limitation, the purification would have taken twice as long.

Largest integrated fraction capacity

Isolera offers an impressive 4.8L fraction capacity that can rapidly be doubled to 9.6L with the expanded fraction capacity option (EXP).

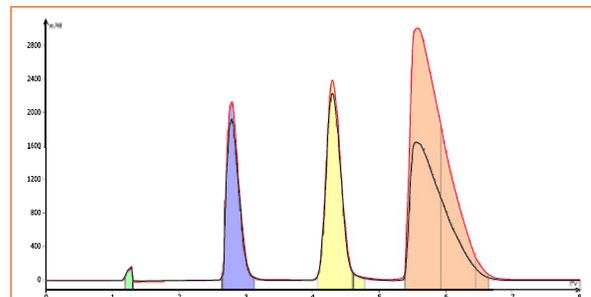


Figure 1. The value of fast flow rates can be seen in the 10.5 gram purification at 200 mL/min using a SNAP 340g KP-SIL cartridge on an Isolera One. The total run time is 18.8 minutes.

Gradient Optimization

The Gradient Optimization "GO" feature converts a linear gradient into a step gradient, optimizing elution conditions around a user-identified eluting peak. Simply purify your sample in a small cartridge. Once the run is complete, select the Optimize button then select the peak of choice and a new method is created with an optimized Step Gradient. Select the new cartridge and collection rack and the method self-adjusts to the new cartridge volumes and is ready to run.

Isocratic co-solvent

Isocratically pump a third co-solvent into the binary gradient to help to maintain compound solubility eliminating potential over-pressure issues caused by precipitating compounds.

Collect on two separate wavelengths

Collect eluting compounds that do not absorb at the primary wavelength using the variable wavelength or UV-VIS detector option. Fractionate on two wavelengths to recover more compounds and obtain cleaner fractions, see Figure 2.

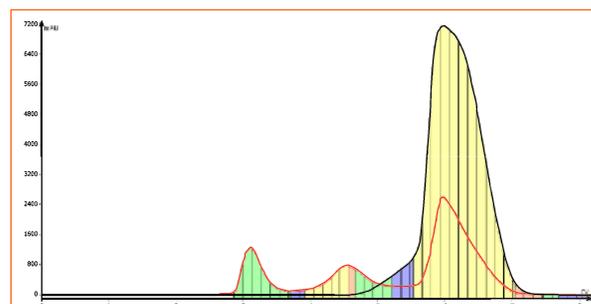


Figure 2. Fractionation using two wavelengths ensures collection of UV absorbing compounds at both wavelengths without sacrificing valuable fraction collection capacity in a "collect all" mode.

Quatro-binary gradient

Use up to four solvents in a single gradient to easily purify samples with diverse polarity. A traditional binary gradient of hexane/ethyl acetate can graduate to a powerful quarto-binary gradient of hexane/ethyl acetate to ethyl acetate/methanol to methanol/water without fear of solvent immiscibility or emulsions.

On-the-fly editing

Edit the gradient (click & drag points AND segments), the flow rate, collection volume, fraction wavelengths and modes, and even add more collection racks if you need to all while the run is in progress.

SNAP cartridges

The Isolera systems come complete with SNAP cartridges and everything needed to begin purifying samples.

Add an auxiliary detector

Purify samples with poor or no UV chromophore by connecting an external detector such as refractive index or ELSD. Isolera will fractionate compounds using the auxiliary detector's signal while simultaneously monitoring the Isolera UV signal.

1-Point Support

Biotope's world-class field service organization serves customers on-site to provide the highest quality personalized support.

System Specifications

Solvent delivery	Two constant volume (3-mL) electric HPFC pumps
Flow rate	1 – 200 mL/min
Pressure limit	145 psi (10 bar)
UV Detection	Choice of variable dual-wavelength (200 – 400 nm), fixed (254 nm) detector, or UV-VIS (200 - 800 nm)
Flow cell path length	0.3 mm
UV collection modes	Single wavelength Dual wavelength (variable UV and UV-VIS)
Fractionation modes	Volume, threshold, threshold with volume, low slope, medium slope, custom slope
Collection vessels	Test tubes (13 mm, 16 mm, 18 mm, and 25 mm) and bottles (120 mL, 240 mL, and 480 mL)
Power	100 – 240 VAC, 50/60 Hz, 4.0 A
System control & data management	On-board computer with 10.4" diagonal touch screen interface
Dimensions (W x H x D)	355 mm (14") x 596 mm (23.5") x 497 mm (19.6"), add 178 mm (7") with EXP
Weight	30-35 kg (66 - 77 lb)

Ordering information

Part Number	Description
ISO-1SF	Isolera 1, fixed 254 nm detector & single fraction collector bed
ISO-1SV	Isolera 1, variable 200-400 nm detector and single fraction collector bed
ISO-1SW	Isolera 1 with UV-VIS, variable 200-800 nm detector and single fraction collector bed
ISO-1EF	Isolera 1, fixed 254 nm detector and expanded fraction collector bed
ISO-1EV	Isolera 1, variable 200-400 nm detector and expanded fraction collector bed
ISO-1EW	Isolera 1 with UV-VIS, variable 200-800 nm detector and expanded fraction collector bed
ISO-4SF	Isolera 4, fixed 254 nm detector and single fraction collector bed
ISO-4SV	Isolera 4, variable 200-400 nm detector and single fraction collector bed
ISO-4SW	Isolera 4 with UV-VIS, variable 200-800 nm detector and single fraction collector bed
ISO-4EF	Isolera 4, fixed 254 nm detector and expanded fraction collector bed
ISO-4EV	Isolera 4, variable 200-400 nm detector and expanded fraction collector bed
ISO-4EW	Isolera 4 with UV-VIS, variable 200-800 nm detector and expanded fraction collector bed



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