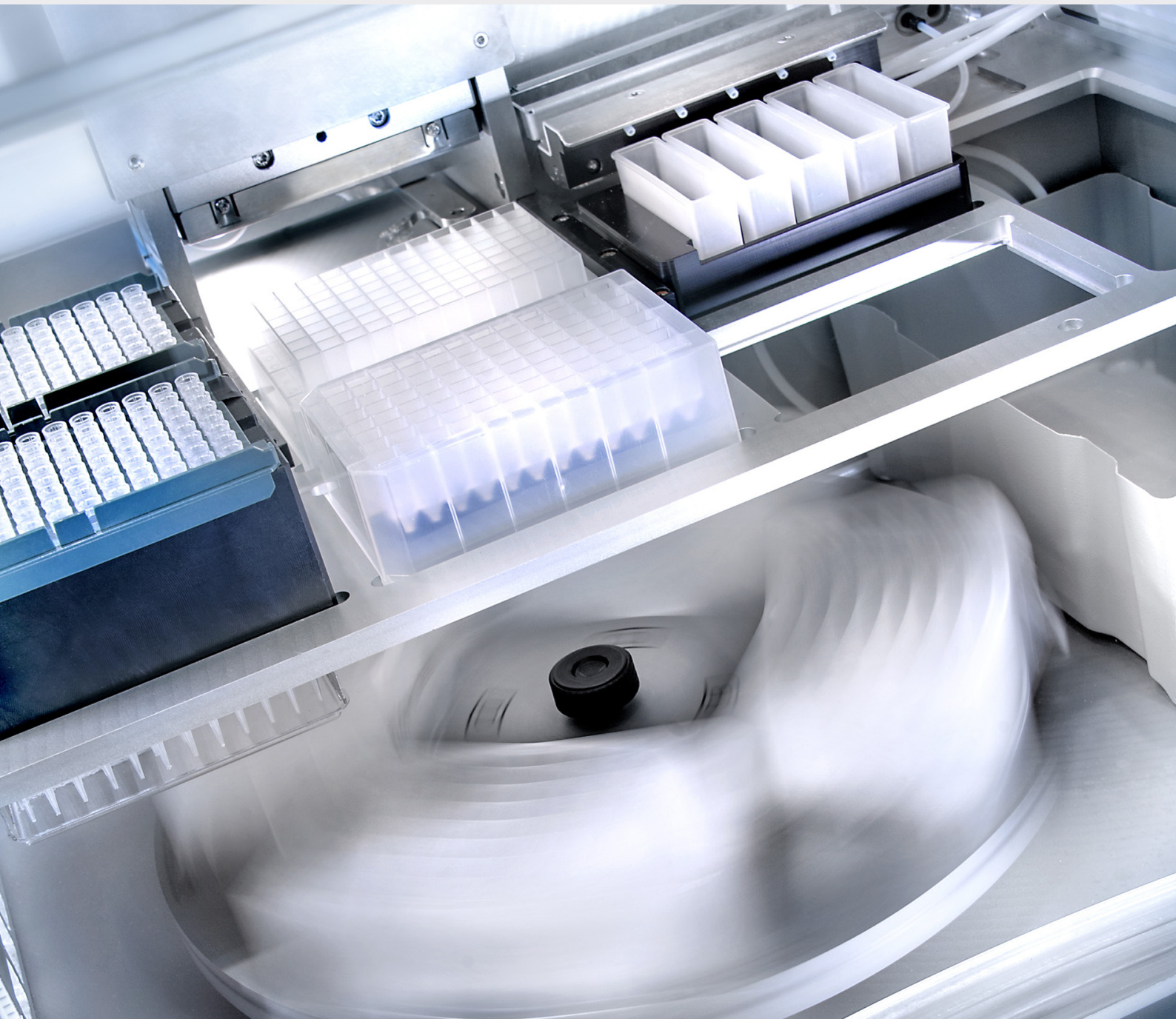


# Biotage<sup>®</sup> Extrahera<sup>™</sup>

Sample Preparation Automation System



# Biotage® Extrahera™

## The Solution to Your Sample Preparation Needs

At Biotage we believe in providing you the support, education, tools and solutions to perform sample preparation easily and efficiently. Biotage® Extrahera™ is a powerful, user friendly automation system for Supported Liquid Extraction (SLE), Solid Phase Extraction (SPE), Phospholipid Depletion (PLD) and Protein Precipitation (PPT) based methods, in plate or column formats.

**Extrahera** [ik-strə-hī-rə] v. (Swedish). To get, pull, or draw out, usually with special effort, skill, or force; to separate or obtain a compound from a mixture by pressure, distillation, treatment with solvents, or the like.

Biotage® Extrahera™ is a brand new automation system for sample preparation. It is a compact eight channel instrument, designed for speed, flexibility and with end user ease of use in mind. Combined with our applications and innovative range of sample preparation consumables, it is the solution for your analytical needs.

The system processes a full standard SPE plate method in less than 30 minutes including sample pre-treatment, conditioning, equilibration, load, wash and elution steps – even when using volatile and low surface tension solvents.

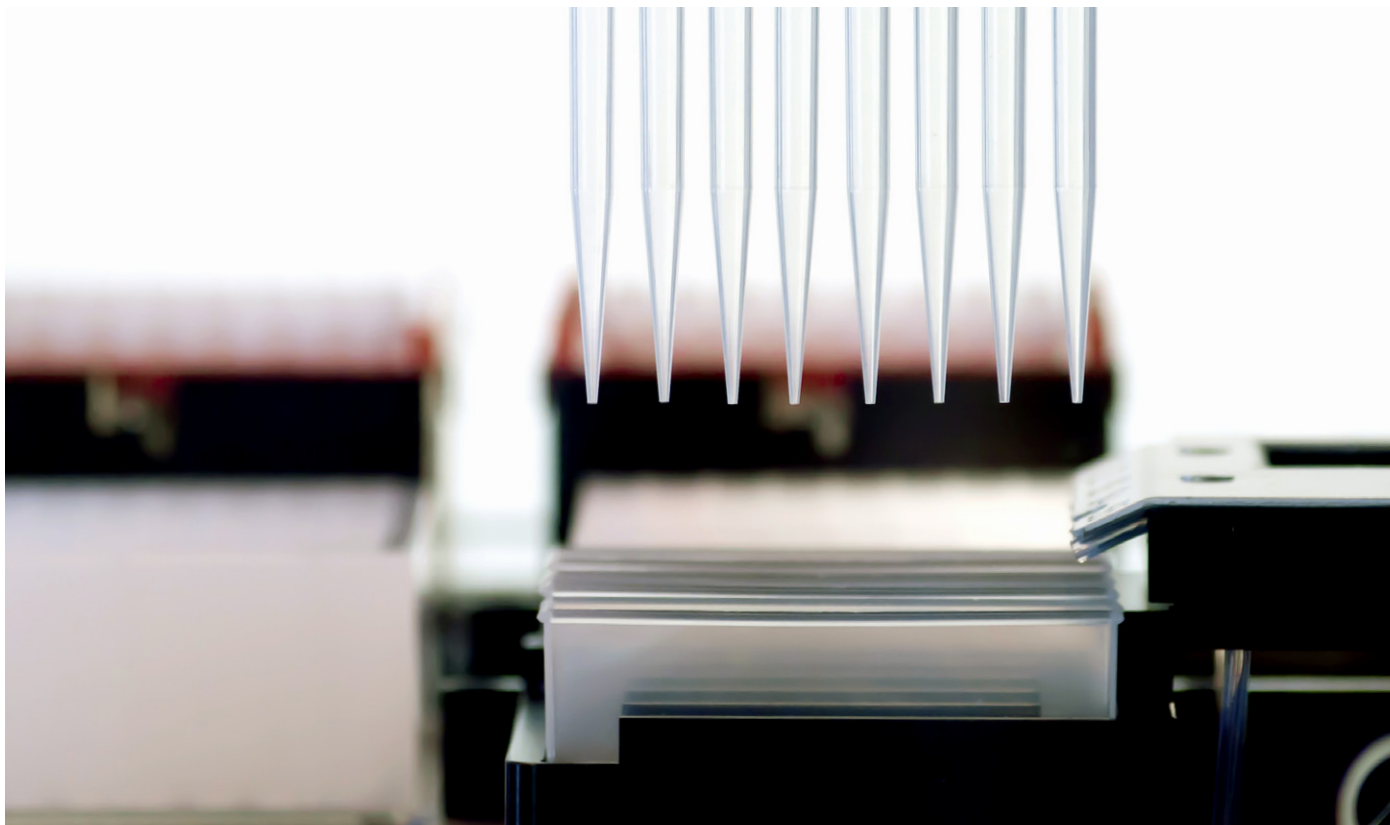
The unique dual format design ensures that Extrahera is an attractive option for analytical laboratories – 96/48 well plate or columns, you decide on your needs now and in the future.





# Why You Should Choose Biotage® Extrahera™

## The Best of Both Worlds



Sample preparation and analysis is a multi-step process, with measurement being the final link in the chain. Sample preparation can often require multiple, laborious and time-consuming manual steps, and as a consequence many laboratories find sample preparation limits their workflow. Even in the hands of the most skilled individual, the sample preparation process can be prone to errors which cannot be corrected even using advanced analytical MS systems.

Extrahera eliminates these issues for you. The system's dual format design enables you to switch from processing 96/48 well plates to 1, 3 or 6 mL columns in a matter of minutes.

### Efficiency and Workplace Improvements

- » Automation removes the workflow bottlenecks of sample preparation in your laboratory
- » Higher throughput lowers the cost per sample of your analysis
- » Improved data quality means less sample re-extractions and faster, higher quality results
- » Skilled analysts can be redeployed to other demanding tasks, such as data analysis
- » Safe and secure, the system prevents tampering of sample or extraction consumables whilst in process

- » The system's efficient solvent use, means less exposure of your staff and the environment to harmful chemicals
- » Intelligent pipette tip reuse where appropriate, lowering your consumables costs

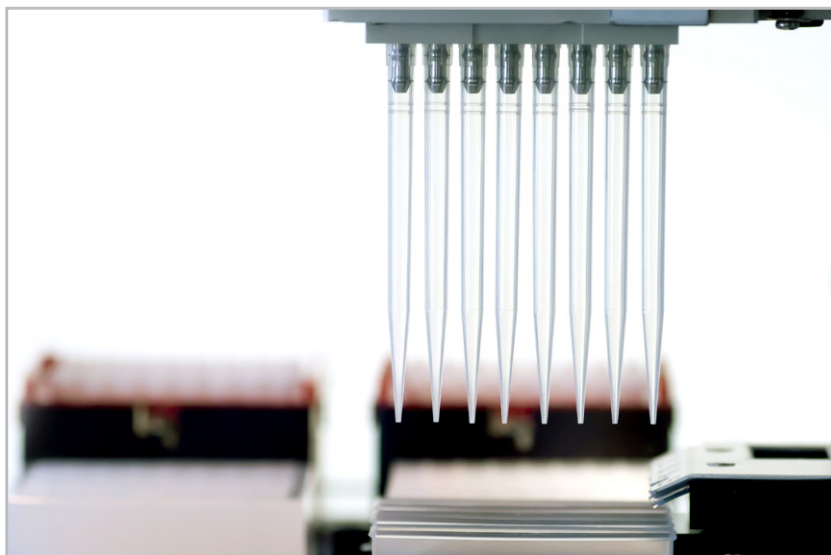
### Improved Data Quality

- » Your samples are prepared in exactly the same way every time regardless of the liquid matrix
- » Elimination of analyst-to-analyst variation improves accuracy and precision compared to manual sample processing methods
- » The system design minimizes the chance of cross contamination and false positives

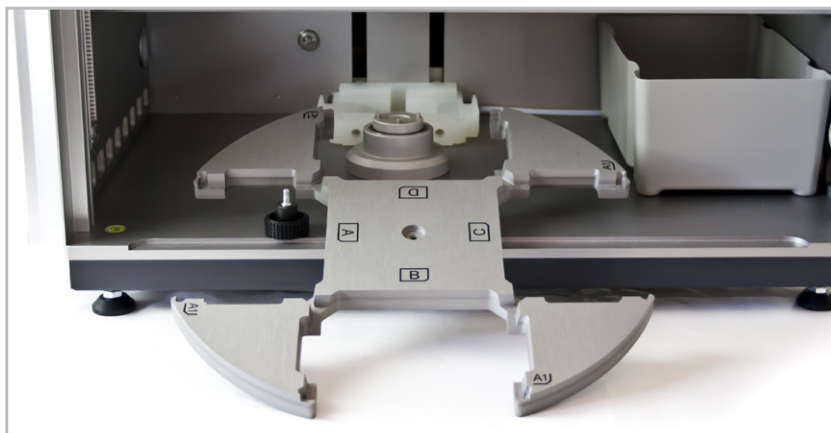


# Biotage® Extrahera™

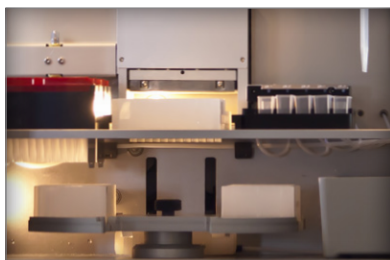
## System Features



Industry standard clear automation tips provide visibility at all times and lower costs vs. conductive tips.



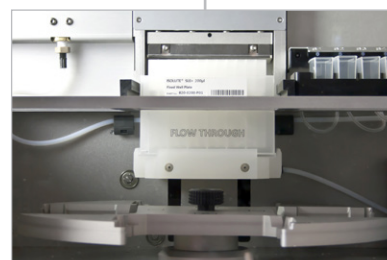
The four position carousel allows multiple elution positions for maximum flexibility during method development.



An illuminated work area gives excellent visibility during any method development and daily operation.



The vacuum assisted waste stream prevents blockages when processing viscous samples.



The plate lifter prevents cross talk during all stages of sample processing.





**Edit SPE Method - EVOLUTE ABN (acid, base, n...**

Method name: EVOLUTE ABN (acid, base, neutral), 1 mL column | Sample plate/rack: 10 mL sample plate, 24 | Extraction media: 1 mL column rack, 24

Pretreatment: ☒ On  
 Conditioning: ☒ On  
 Equilibration: ☒ On  
 Load: ☒ On  
 Wash: ☐ On

Number of steps: 1 | Pressure (bar): 2.0 | Plate dry after last wash?: ☒ Yes | Plate dry time (s): 120 | Dispose tips after each step?: ☐ No

Solvent: Water-MeOH (95:5) | Volume (µL): 1000 | Collect in position: D (Waste) | Positive pressure time (s):

The clean and simple user interface delivered with Extrahera makes setting up your system a joyful and easy task.

**Running - EVOLUTE ABN (acid, base, neutral), ...**

Preparation | Pretreatment | Conditioning | Equilibration | Sample Load | Wash | Elution | Finish

**Elution**

Subcup 2  
Dispensing 1.0 µL of 0.001M NaOH, pH 8

Abort | View Report | Pause

**Reports - EVOLUTE\_ABN\_(acid\_base\_neutral)\_...**

**Biotage Extrahera**  
SPE Method Report  
Execution Status: Success

Method Name: EVOLUTE\_ABN\_(acid\_base\_neutral)\_1\_mL\_column.cpy

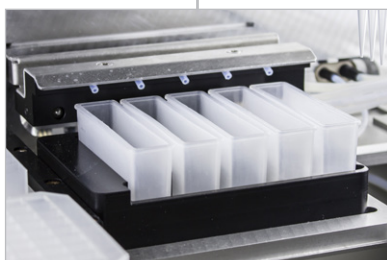
Run Identifiers:  
 Sample Name/Plate ID:   
 Extraction Media Lot No.:   
 Collection Plate Rack ID:

Create and control your methods and processing via the solvent resistant touch screen.

Save and re-use your favorite methods and generate pdf reports of your runs.



Positive pressure processing of your samples provides more reproducible flows and control.



Five automatically filled solvent/buffer reservoirs. Convenient and minimizes wastage.



A dual gas inlet allows you to process your samples according to your laboratory requirements.



Removable, disposable tip waste bin.



# Technical Specifications

## Liquid Handling

### Pipetting specifications

Up to 1000 µL in one aliquot, larger volumes handled in multiple aliquots

At 50 µL:  $\pm 2.0\%$  accuracy and 1.0% CV\*

At 100 µL:  $\pm 2.0\%$  accuracy and 1.0% CV\*

At 500 µL:  $\pm 1.5\%$  accuracy and 1.0% CV\*

At 1000 µL:  $\pm 1.0\%$  accuracy and 1.0% CV\*

### Solvent capacity

5 solvent pumps with automatic feed in from external reservoirs, with additional capacity for an extra 5 manually filled solvent reservoirs (5 x 25 mL or 5 x 100 mL)

### Pressure unit

0–5 bar positive pressure (0.1 bar increments)

## Sample Processor

### Format

96-well extraction plates, 48-well extraction plates, 96-array plates for 1 and 2 mL wells

96-position extraction racks for 1 mL tabless columns (A format)

24-position extraction racks for 1, 3, and 6 mL columns (A, B, and C format)

### Plate positions

6 position upper deck used for sample, extraction plates, pipette tips and solvents. 4 positions on lower deck carousel for multiple elution and waste.

### Disposable tips

1000 µL clear tips

## System Requirements

### Temperature

Operating Temperature: 15–32 °C

Storage and transportation temperature: -25 °C to 60 °C

### Humidity

10–95% RH

### Electrical supply

100 to 240 V~, 50/60 Hz

### Fuses

T4A at the power inlet (2 required)

### Maximum power consumed

300 VA

### Pressurized air supply

>5 L/min (0.18 cubic feet/min), 6  $\pm$  0.2 bar (0.6  $\pm$  0.02 MPa; 87  $\pm$  3 psi)

### Inert gas supply

>1 L/min (0.04 cubic feet/min), 6 to 10 bar (0.6 to 1.0 MPa; 87 to 145 psi)

### Vacuum supply

Partial pressure range: < 500 mbar (50 kPa; 7 psi)

Flow rate:  $\geq$  8.3 L/min (0.29 cubic feet/min)

### Weight

75 kg (165 lbs)

### Dimensions (WxDxH)

Without touch screen: 610 x 510 x 730 mm (24.0" x 22.1" x 28.7")

With touch screen: 860 x 570 x 730 mm (33.8" x 22.4" x 28.7")

### Max sound level

65 dB(A)

## Interfaces

### Touch screen

12" Capacitive Touch

### Ethernet LAN

Complies with IEEE 802.3 (ANSI 8802-3)

### USB

USB 2.0

## Certifications

CE, CSA certified

\*Values derived using a 1000 µL tip.

# Ordering Information

Only genuine Biotage accessories must be used in the system. To order consumables and accessories, see contact information on the back of this document or visit our website [www.biotage.com](http://www.biotage.com).

Part no.	Description	Qty
414001	Biotage Extrahera	1
414007	Configuration Kit 96 Positions	1
414008	Configuration Kit 24 Positions	1
414253SP	Column Rack 96 x 1 mL (tabless)	1
414169SP	Column Rack 24 x 1 mL	1
414174SP	Column Rack 24 x 3 mL	1
413640SP	Column Rack 24 x 6 mL (tabless)	1
414256SP	Sample Rack 12 x 75 mm 24 Positions	1
414255SP	Sample Rack 13 x 100 mm 24 Positions	1
414254SP	Sample Rack 16 x 100 mm 24 Positions	1
C44651	12 x 75 mm Test Tube	1000
C40707	13 x 100 mm Test Tube	1000
C40708	16 x 100 mm Test Tube	1000
414574	Collection Vials 18 x 75 mm	304
121-5202	96-Well Collection Plate, 1 mL, Square	50
121-5203	96-Well Collection Plate, 2 mL, Square	50
121-5213	96-Well Collection Plate, 2 mL, Round	50
121-5210	48-Well Collection Plate, 5 mL	20
121-5208	24-Well Collection Plate, 10 mL	50
414511SP	Collection Rack 12 x 75 mm 24 Positions	1
414512SP	Collection Rack 18 x 75 mm 24 Positions	1
414578SP	Inserts for 12 x 32 mm vials for Collection Rack 12 x 75 mm 24 Positions	24
413629SP	Pressure Head Seal 96 Positions	5
414148SP	Pressure Head Seal 24 Positions	5
413991SP	Solvent Rack for 25 mL Reservoirs	1
414045SP	Solvent Reservoir 25 mL	25
414215SP	Solvent Rack for 100 mL Reservoirs	1

Part no.	Description	Qty
414214SP	Solvent Reservoir 100 mL	5
414330SP	Kit, Solvent Inlet Lines (S1-S5)	5
414579	Solvent Safety Kit (inc. GL45 Caps, Filters and Bottles, Qty 5)	1
414686SP	Tip Rack Holder	1
414141	Biotage Disposable Tips 1000 µL Clear	10x96
414201SP	Flow-Through Plate 96	1
414516SP	Flow-Through Plate 48	1
414203SP	Flow-Through Plate 24	1
414703SP	Spacer for µElution and SPEC Fixed Well Plates	1
414702SP	Matrix Tube retaining Plate	1
414272SP	Waste Kit incl. Waste Reservoir 5 L and Tubing	1
414218SP	Pipette Tip Waste Bin	1
414565SP	Extraction Waste Collector for Lifter	1
414137SP	Waste Tubing	1
411916SP	Fuse, 4A/250VAC, 5x20mm	5
C67361	Mains Cord-Set (EU)	1
C65902	Mains Cord-Set (US/CA)	1
C128195	Mains Cord-Set (UK)	1
356330SP	Vacuum Pump ME1C, 100 to 230VAC 50/60Hz	1
SER-EX-SAP	Service Agreement - Priority - Extrahera	
SER-EX-SAL	Service Agreement - Limited - Extrahera	
SER-EX-FYMP	First Year Maintenance Package Extrahera	
SER-EX-IN	Installation Extrahera	
SER-EX-IQOQ	IQ/OQ/PV on on site Extrahera	

## Service Agreements

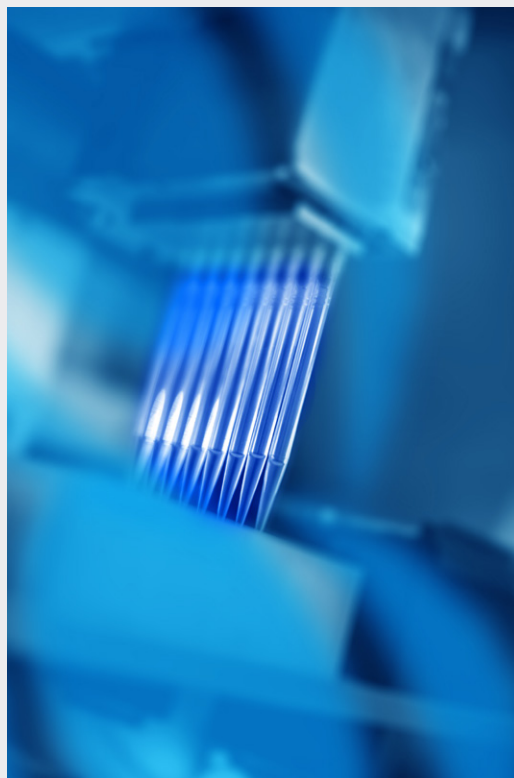
With a Biotage service agreement you can lock-in annual service costs to avoid unexpected expenses and eliminate the effort to generate a separate order for a service visit. Biotage systems with Priority Service Agreements are repaired on average 5 days quicker than units scheduled for on-demand service. Biotage service agreements are available in 3 standard tiers with the ability to customize for multiple units.

- » Value – Service agreement cost can be significantly less than the cost of a single repair.
- » Control – Your annual maintenance costs will be fixed with no surprises.
- » Faster response – Eliminate the time to generate and approve a purchase request.
- » No hassle – With a service agreement, simply contact Biotage 1-Point Support for fast resolution.



# Your Complete Partner for Effective Chemistry

Biotage is a worldwide supplier of instruments and accessories designed to facilitate the work of laboratory and process chemists. With our deep knowledge of the industry, academic contacts and in-house R&D teams, we can deliver the best solutions to your challenges. We take great pride in our flexibility and ability to meet our customer's individual needs. With strong foundations in both analytical, organic and process chemistry, we can offer the widest range of solutions available on the market.



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To locate a distributor,  
please visit our website  
[www.biotage.com](http://www.biotage.com)

## Part Number: PPS353.v2

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