

# Biotage<sup>®</sup> Extrahera<sup>™</sup> LV-200 Sample Prep Workstation

Low Volumes – Big Results



# About Biotage

Biotage is a Global Impact Tech Company committed to solving society's problems. We offer workflow solutions and products to customers in drug discovery and development, analytical testing and water and environmental testing.

Biotage is contributing to sustainable science with the goal to make the world healthier, greener and cleaner – HumanKind Unlimited.

Our customers span a broad range of market segments including pharmaceutical, biotech, contract research and contract manufacturers as well as clinical, forensic and academic laboratories in addition to organizations focused on food safety, clean water and environmental sustainability.

## Vision

We help shape the sustainable science of tomorrow and our future society for the benefit of humankind.

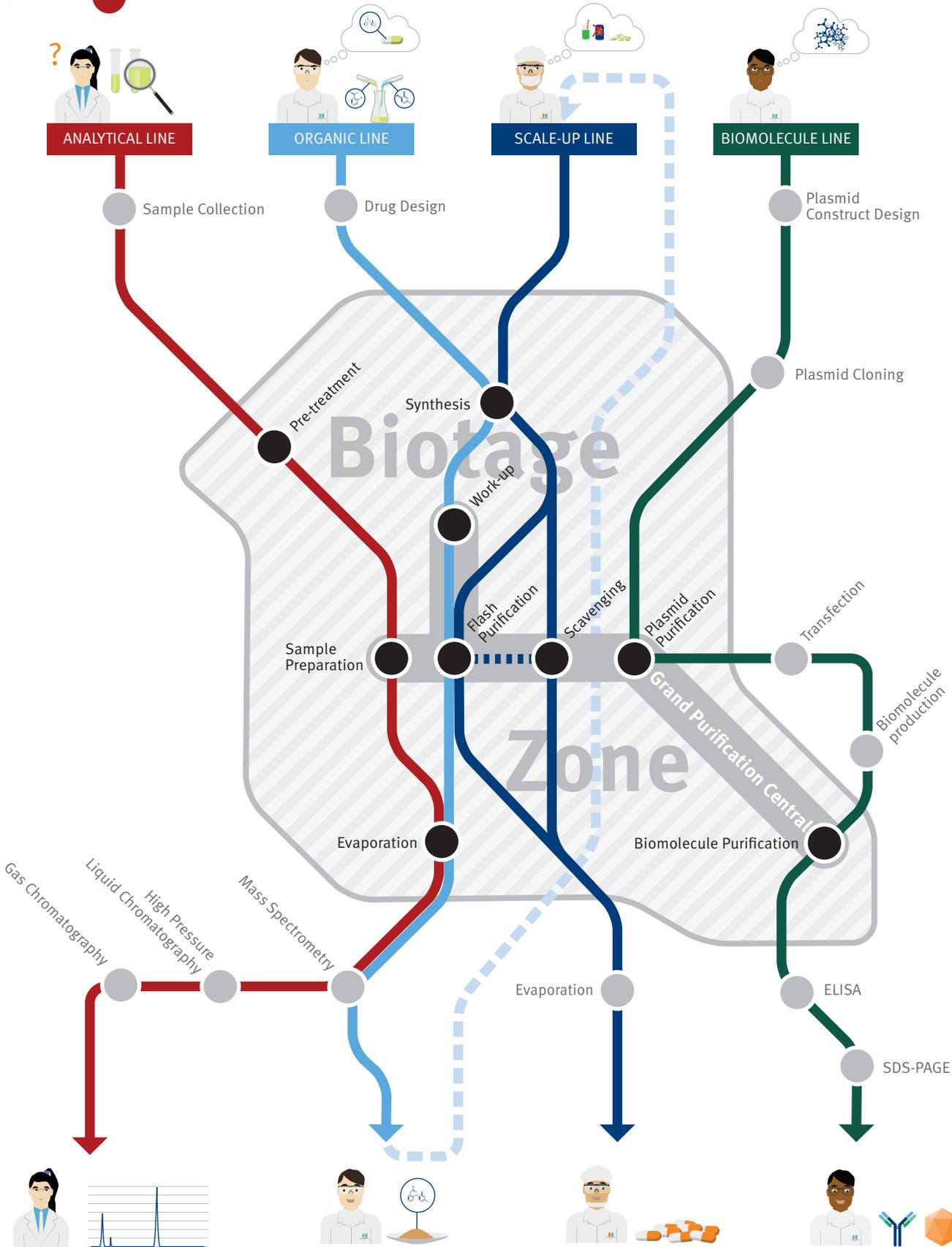
## Mission

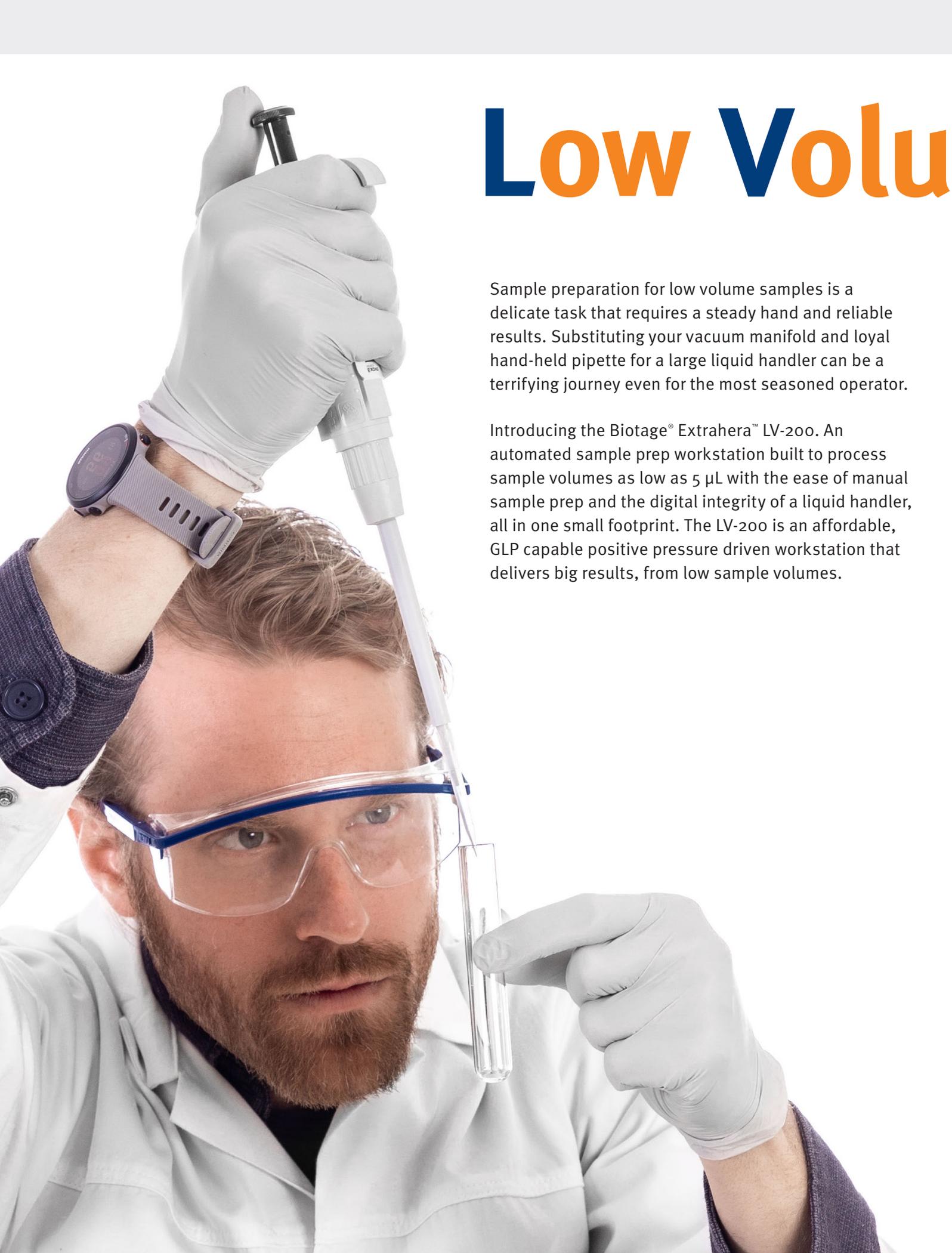
Our mission is to help our customers to make the world more sustainable, healthier, and cleaner.

Biotage is headquartered in Uppsala in Sweden and employs approximately 485 people worldwide. The Group had sales of 1,092 MSEK in 2020 and our products are sold in more than 70 countries. Biotage's share (BIOT) is listed in the Mid Cap segment on the NASDAQ Stockholm.



You are here





# Low Volume

Sample preparation for low volume samples is a delicate task that requires a steady hand and reliable results. Substituting your vacuum manifold and loyal hand-held pipette for a large liquid handler can be a terrifying journey even for the most seasoned operator.

Introducing the Biotage® Extrahera™ LV-200. An automated sample prep workstation built to process sample volumes as low as 5  $\mu\text{L}$  with the ease of manual sample prep and the digital integrity of a liquid handler, all in one small footprint. The LV-200 is an affordable, GLP capable positive pressure driven workstation that delivers big results, from low sample volumes.

# mes, Big Results





Biotage® Extrahera™ LV-200

Biotage®

< Back Prepare Run

Solvent Tips	Extraction Media
1	3
2	

Sample Tips

1
2



## Point, Press, and Run

Managing your LV-200 is made easy using Biotage's clean, simple, and intuitive user interface. Creating and running methods with your fingertips has never been better, just select your sample prep technique and go.

Need the advantage of GLP traceability and data integrity without the complexity of GLP? Yep, we have that option too. With or without the GLP upgrade, LV-200 doesn't require a software engineer to realize the system's full potential: no programming, no simulator software, just your intuition.

Best of all, you won't have to rely on costly and specialized education courses to bring new team members up to speed. You probably won't need the user manual – but we made one for you, just in case.

At Biotage, we believe in making automation easy.

## Pipetting, it's important

Pipetting makes the system: that's why we've made Extrahera LV-200 compatible with 50, 200, and 1000  $\mu\text{L}$  tips in addition to 1000  $\mu\text{L}$  wide bore sample tips. As an automated sample prep workstation solution, the LV-200 can process samples from 5–800  $\mu\text{L}$  in parallel using its 8-channel pipette head. Designed with the accuracy and precision you need to pipette low sample volumes, the LV-200 gives you the pipetting you need.







W3

W2

W1

96

FLOW TRACK

A

B

C

D

## Positive Pressure, Superior Results

Using positive pressure over vacuum based processing means you can manage your samples with a high degree of flow control and uniform loading. A vacuum manifold won't handle changes in sample viscosity leading to extended and inconsistent sample processing times. With positive pressure your samples keep moving, giving you reliable results and superior recoveries.



# Consumables and Accessories

## Power Your Extrahera



### Biotage® Mikro SPE Plates

For elution volumes as low as 20  $\mu$ L. Excellent sample clean-up while enhancing sample preparation workflow and delivering reproducible, high sensitivity analytical results. Packed with 2 mg of wettable polymeric EVOLUTE® sorbents.



### EVOLUTE® EXPRESS SPE Plates

Load-Wash-Elute sample preparation, developed specifically for analyte quantification by LC-MS/MS. Packed with advanced water-wettable polymer-based sorbents for extracting drugs from biological fluids.



### ISOLUTE® SLE+ Supported Liquid Extraction

Load-Wait-Elute Sample Preparation. Designed to provide stress-free extraction of analytes from biological fluids, with high analyte recoveries, and clean protein and phospholipid free extracts. Methods are easy to develop, and automation is simple.



### EVOLUTE® HYDRO SPE Plates

Enabling in-situ (in-well) hydrolysis of urine samples, reducing sample handling and improving efficiency.



### ISOLUTE® PPT+ Protein Precipitation Plates

Fast, Simple Protein Removal. The optimized filtration system provides an easy to automate solution for efficient protein removal from biological fluid samples. The procedure is streamlined, with no awkward off-line steps.



### ISOLUTE® PLD+

Effortlessly Enhance Analyte Sensitivity by removing proteins and phospholipids. Effective but extremely simple sample clean-up for LC-MS/MS analysis. Requiring next to no method development, ISOLUTE PLD+ can be integrated quickly and easily into routine workflow, increasing productivity and reducing instrument downtime.

## 96 Well Collection Plates



350 µL Square



1 mL Square



2 mL Square



2 mL Round

## Pipette Tips



50 µL



200 µL



1000 µL



1000 µL, Wide bore

## Configuration Kit – 96 Positions

- » Pressure Head, 96 Positions
- » Self Adhesive Seal, 96 Positions
- » 96 Position Flow Through Plate
- » 96 Position Collection Plate
- » 96 Well, ISOLUTE® C18, 50 mg Plate
- » Extrahera Calibration Vials, 1 mL x 96



## Pressure Head Seal

Self adhesive



# Technical Specifications

## Liquid Handling

	<b>Pipette Pump Capacity</b>	5–800 µL
	<b>Pipetting specifications</b>	Up For the 50 µL pipette tip (P/N 417008): At 5 µL: ±5.0% accuracy and 5.0% CV At 25 µL: ±4.0% accuracy and 2.5% CV At 50 µL: ±2.5% accuracy and 2.0% CV  For the 200 µL pipette tip (P/N 417009): At 20 µL: ±5.0% accuracy and 5.0% CV At 100 µL: ±2.0% accuracy and 1.5% CV At 200 µL: ±1.5% accuracy and 1.0% CV
	<b>Solvent capacity</b>	5 solvent pumps with automatic feed in from external reservoirs, with additional capacity for an extra 5 manually filled solvent reservoirs (5 x 100 mL)
	<b>Pressure unit</b>	Positive Pressure Unit: Processing: 0-5 Bar (0.1 Bar Increments) Plate Dry: 5 Bar at 600 mL/min

## Sample Processor

	<b>Format</b>	96-well extraction plates » 96-array plates for 1 and 2 mL wells » 96-position extraction racks for 1 mL (tabless) columns (A format) » 96-position tip racks for 200 µL, and 300 µL, DFE column tips
	<b>Plate positions</b>	6 position upper deck used for sample, extraction plates, pipette tips and solvents. 4 positions on lower deck carousel for multiple elution and waste.
	<b>Disposable tips</b>	Disposable Sample Tips (Position 2): 50, 200, 1000 µL clear tips, and 1000 µL clear Wide Bore tips. Disposable Solvent Tips (Position 1): 50, 200, 1000 µL clear tips. Disposable Solvent Tips (Position 6): 50 and 200 µL clear tips only.

## System Requirements

	<b>Temperature</b>	Operating Temperature: 18 °C to 32 °C Storage and transportation temperature: -25 °C to 60 °C
	<b>Humidity</b>	10% to 90% RH
	<b>Electrical supply</b>	100 to 240 V~, 50/60 Hz
	<b>Fuses</b>	T4A at the power inlet (2 required)
	<b>Maximum power consumed</b>	300 VA
	<b>Pressurized air supply</b>	>5 L/min (0.18 cubic feet/min), 6 ± 0.2 bar (0.6 ± 0.02 MPa; 87 ± 3 psi)

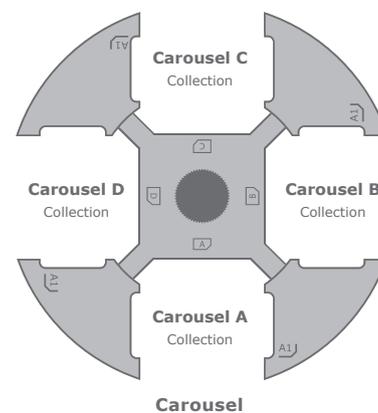
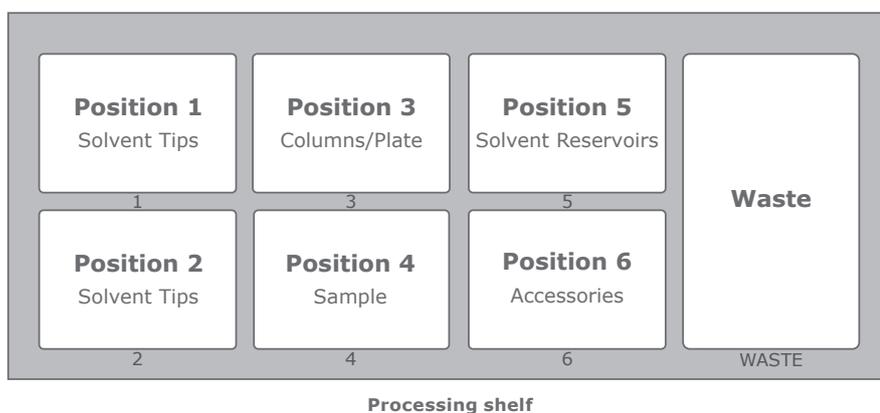
	<b>Inert gas supply</b>	AIR port requirements: >5 L/min (0.18 cubic feet/min), 6 ± 0.2 bar (0.6 ± 0.02 MPa; 87 ± 3 psi) N2 port requirements: 1 L/min (0.04 cubic feet/min) during processing and 70 L/min (2.5 cubic feet/min) during plate dry, 6 ± 0.2 bar (0.6 ± 0.02 MPa, 87 ± 3 psi)
	<b>Vacuum supply</b>	Partial pressure range: < 500 mbar (50 kPa; 7 psi) Flow rate: ≥ 8.3 L/min (0.29 cubic feet/min)
	<b>Weight</b>	80 kg (176 lbs)
	<b>Dimensions (WxDxH)</b>	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")
	<b>Max sound level</b>	65 dB(A)
<b>Interfaces</b>		
	<b>Touch screen</b>	12" Capacitive Touch
	<b>Ethernet LAN</b>	Complies with IEEE 802.3 (ANSI 8802-3)
	<b>USB</b>	USB 2.0
<b>Other</b>		
	<b>GLP Software Ready</b>	
	<b>Certifications</b>	CE, CSA certified



# Ordering Information

Part Number	Item Description	Qty
<b>System</b>		
417000	Biotage® Extrahera™ LV-200	1
<b>Accessories</b>		
415040	Configuration Kit – 96 Positions Dual Flow	1
415579	Solvent Safety Kit – GL45 Caps, Filters, & 1 L Glass Bottle (5/qty)	1
356330SP	Vacuum Pump ME1C for Waste	1
<b>Accessories for Positions 1 &amp; 2</b>		
417008	Pipette Tips, Clear, 50 µL (10 x Pk/96)	1
417009	Pipette Tips, Clear, 200 µL (10 x Pk/96)	1
414141	Pipette Tips, Clear, 1000 µL (10 x Pk/96)	1
416444	Pipette Tips, Clear, 1000 µL, wide bore (10 x Pk/96)	1
<b>Accessories for Position 3</b>		
414703SP	Spacer for mElution and SPEC Fixed Well Plates	1
414253SP	Column Rack 96 x 1 mL (Tabless)	1
<b>Accessories for Position 4</b>		
414702SP	Matrix Tube Retaining Plate	1
121-5201	Sample/Collection Plate, 350 µL, Square	50
121-5202	Sample/Collection Plate, 1 mL, Square	50
121-5203	Sample/Collection Plate, 2 mL, Square	50
121-5213	Sample/Collection Plate, 2 mL, Round	50
<b>Accessories for Position 6</b>		
414045SP	Solvent Reservoirs, 25 mL	25
413991SP	Solvent Rack, 25 & 40 mL	1
415560SP	Solvent Rack, 100 mL	1
414214SP	Solvent Reservoirs, 100 mL	5
417423SP	Pipette Tip Rack Short, 50/200 µL tips	1

Part Number	Item Description	Qty
<b>Accessories for Carousel</b>		
416868SP	Dual Flow Chromatography (DFE) Spacer	1
414201SP	Flow Through Plate 96	1
121-5201	Sample/Collection Plate, 350 µL, Square	50
121-5202	Sample/Collection Plate, 1 mL, Square	50
121-5203	Sample/Collection Plate, 2 mL, Square	50
121-5213	Sample/Collection Plate, 2 mL, Round	50
<b>Software Upgrade &amp; Miscellaneous Accessories</b>		
415149	Handheld Barcode Scanner	1
417508SP	LV-200 GLP Package, On Site Activation	1
415604SP	Pressure Head Seal, Self-Adhesive, 96-Positions	1
<b>Consumables for Position 4</b>		
600-0002-LVP	Biotage® Mikro ABN plate, 2 mg	1
601-0002-LVP	Biotage® Mikro CX plate, 2 mg	1
602-0002-LVP	Biotage® Mikro WCX plate, 2 mg	1
603-0002-LVP	Biotage® Mikro AX plate, 2 mg	1
604-0002-LVP	Biotage® Mikro WAX plate, 2 mg	1
600-0010-PX01	EVOLUTE® EXPRESS ABN plate, 10 mg	1
601-0010-PX01	EVOLUTE® EXPRESS CX plate, 10 mg	1
602-0010-PX01	EVOLUTE® EXPRESS WCX plate, 10 mg	1
603-0010-PX01	EVOLUTE® EXPRESS AX plate, 10 mg	1
604-0010-PX01	EVOLUTE® EXPRESS WAX plate, 10 mg	1
820-0200-P01	ISOLUTE® SLE+ 200 µL plate	1
820-0400-P01	ISOLUTE® SLE+ 400 µL plate	1
820-0055-BG	ISOLUTE® SLE+ 400 µL Sample Volume (Tabless)	50
120-2040-P01	ISOLUTE® PPT+ Fixed Well plate	1
918-0050-P01	ISOLUTE® PLD+ Protein & Phospholipid Removal Plate	1





96

417  
Pipette

FLOW THROUGH

B

A

C

D

# Dedicated Support

## Biotage Global Service Packages

### First Year Maintenance Plan

First year coverage package that includes installation and familiarization, preventive maintenance and a 3-day response time.

Part number: SER-EX-FYMP

 **Biotage First Year Maintenance Plan (PPS480)** 

### First Year Maintenance Plan with Qualification

This is a first-year coverage package that includes installation with qualification and familiarization, preventative maintenance, and a 3-day response time.

Part number: SER-EX-FYMP-Q

### Qualification (IQ/OQ)

This is an add-on compliance package for the system that is highly desirable for CRO and Pharm industries.

Part number: SER-EX-IQOQ

### Qualification for GLP (IQ/OQ)

This is an add-on compliance package for the Software that is highly desirable for CRO and Pharm industries and is specific for system with the GLP license activated. It is not the same as the SER-EX-IQOQ.

Part number: SER-EX-GLP-IQOQ

## Biotage® 1-Point Support™

[biotage.com/service](https://biotage.com/service)





Biotage<sup>®</sup>



dedicated Service

# 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.

## EUROPE

Main Office: +46 18 565900  
Fax: +46 18 591922  
Order Tel: +46 18 565710  
Order Fax: +46 18 565705  
order@biotage.com  
Support Tel: +46 18 56 59 11  
Support Fax: + 46 18 56 57 11  
eu-1-pointsupport@biotage.com

## NORTH & LATIN AMERICA

Main Office: +1 704 654 4900  
Toll Free: +1 800 446 4752  
Fax: +1 704 654 4917  
Order Tel: +1 800 446 4752  
Order Fax: +1 704 654 4917  
ordermailbox@biotage.com  
Support Tel: +1 800 446 4752  
us-1-pointsupport@biotage.com

## JAPAN

Tel: +81 3 5627 3123  
Fax: +81 3 5627 3121  
jp\_order@biotage.com  
jp-1-pointsupport@biotage.com

## CHINA

Tel: +86 21 68162810  
Fax: +86 21 68162829  
cn\_order@biotage.com  
cn-1-pointsupport@biotage.com

## KOREA

Tel: +82 31 706 8500  
Fax: +82 31 706 8510  
korea\_info@biotage.com  
kr-1-pointsupport@biotage.com

## INDIA

Tel: +91 11 45653772  
india@biotage.com

Distributors in other regions  
are listed on [www.biotage.com](http://www.biotage.com)

## Part Number: PPS644

© 2021 Biotage. All rights reserved. No material may be reproduced or published without the written permission of Biotage. Information in this document is subject to change without notice and does not represent any commitment from Biotage. E&OE. A list of all trademarks owned by Biotage AB are available at [www.biotage.com/legal](http://www.biotage.com/legal). Other product and company names mentioned herein may be trademarks or registered trademarks and/or service marks of their respective owners, and are used only for explanation and to the owners' benefit, without intent to infringe.