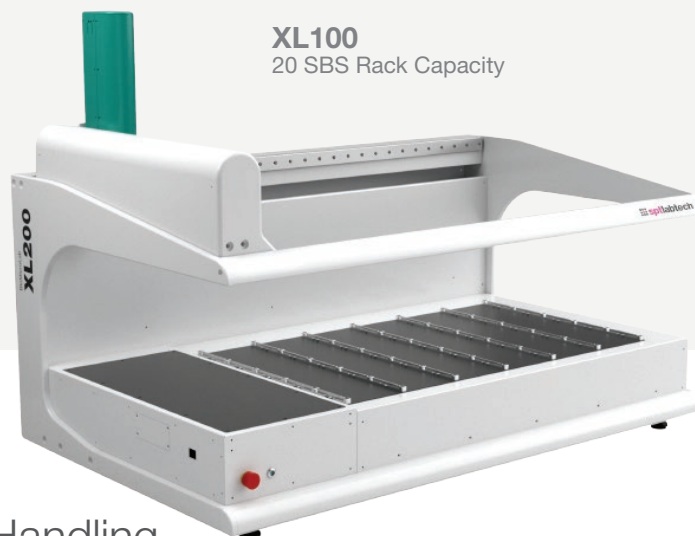


XL200
30 SBS Rack Capacity



vial handling systems

XL100
20 SBS Rack Capacity



Vial Based Liquid Handling Platforms for Sample Management

reliable, flexible and affordable

The XL100 & XL200 are reliable, flexible and affordable robotic pick and place systems used to automate critical sample management tasks such as organizing, reformatting and accurately tracking samples. The XL100 and XL200 are fully compatible with LIMS systems and with multiple labware formats. Choose and order your XL Series platform with the capacity and modules right for your lab's application.

features

- Systems are configured with modules to accomplish your workflow(s)
- Intelligent pick head adjusts to tube size
- Encoder based robotics
- LIMS integration and work list based operation

configuration options

- Sample tracking with 1D and 2D readers to scan barcodes on the vial's base and/or side
- Liquid handling pipettor handling up to 1mL
- Volume detection with a 4 or 5-place automated balance
- Label printing and application
- Capping & Decapping
- Sample temperature integrity systems for frozen samples or cool room operation

test tube & vial compatibility

- Commonly used tubes, vials and cryovials in ANSI/SLAS format racks
- Tubes/vials up to 125mm in overall height

applications

- Compound sample management
- Verify sample transfers with an automated balance
- Liquid transfer and sample pooling
- Confirm sample volume for improved quality control
- Print and apply human readable and barcode labels
- Re-array, reformat and cherry pick tube racks
- Organize and track samples
- Automated vial capping system



XL100 & XL200

Vial Based Liquid Handling Platforms for Sample Management

re-array, reformat, cherry pick

- Flexible pick finger design adjusts to a wide variety of tubes and vials
- Compatible with “honeycomb” format tube racks
- Work list based tube processing
- Output files easily integrate with LIMS

volume detection

Weigh 180 vials per hour

Typically used for gravimetric tracking of sample volume, 4-place (0.0001g) or 5-place (0.00001g) automated balance options are available. The XL Series Work List Manager software includes a Tare/Gross Weighing Mode for quick job set-up and pre-formatted output files. Labs requiring increased accuracy choose the **5-Place Balance** which includes:

- Flexible pick finger design adjusts to a wide variety of tubes and vials
- Compatible with “honeycomb” format tube racks
- Work list based tube processing
- Output files easily integrate with LIMS

barcode scanning for 1D & 2D

Decode 300 vials per hour



Barcode readers decode 1D and 2D barcodes on the base and side of tubes and vials.

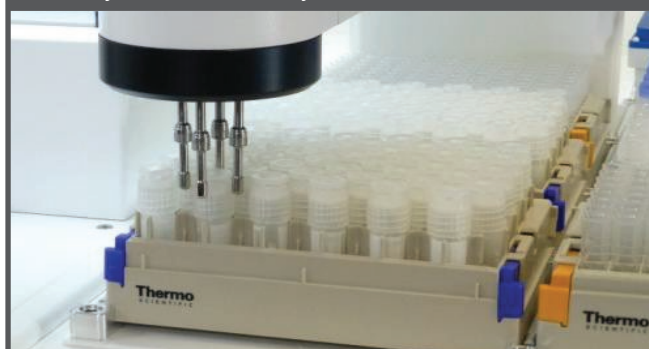
label printing and application

Print and apply up to 180 vials per hour

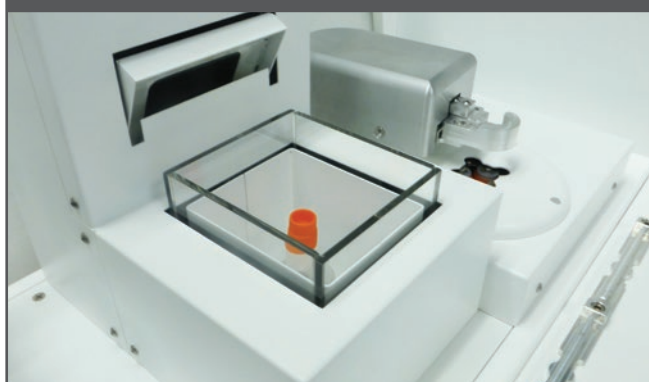
Automated tube and vial labeling makes it easy to affix human readable labels to labware and eliminates the headaches associated with manual tube labeling.

- Prints 1D & 2D barcodes and human readable text
- Wide variety of label material and sizes available
- Identical or unique labels
- User-friendly software
- 300 – 600 dpi thermal printer
- Available standalone or integrated with the XL200, XL100, XL20 or XL9
- Easy to add the LabelPro to your existing XL Series system

Re-array, Reformat, Cherry Pick



Volume Detection with an Automated Balance



	Sartorius	Mettler Toledo	
Weighing Range	60g (4-place)	111-220g (4-place)	0-111g fine range (5-place)
Readability	0.1mg	0.1mg	0.01mg
Reproducibility	0.1mg	0.04mg (100g)	0.03mg (10g)
Linearity	0.2mg	0.3mg	0.25mg
Average Response Time	2 sec	2 sec	5 sec

1D and 2D Barcode Scanning



Label Printing and Application



XL100 & XL200

Vial Based Liquid Handling Platforms for Sample Management

Liquid Handling



DiTi tip size (µl)	Volume (µl)	Point accuracy (A)	Precision (CV)
10	1	5%	6%
	5	2.5%	1.5%
	10	1.5%	1%
50	5	5%	2%
	10	3%	1%
	50	2%	0.75%
200	10	5%	2%
	50	2%	0.75%
	200	1%	0.75%
1000	10	7.5%	3.5%
	100	2%	0.75%
	1000	1%	0.75%

liquid transfer

Aspirate or dispense in 7 seconds per vial

- Tecan ADP single channel electronic pipette module
- with <5µL – 1mL volume
- Pipette is controlled by a separate z-axis
- Auto-load and auto-eject pipette tips
- Conductive tips provide liquid level sensing
- Aliquot and dispense from any tube, vial, or rack position
- On-deck reagent / diluent reservoir, pipette tip supply, and wash areas are optional
- Precise sample temperature requirements can be achieved with customized thermal blocks as an additional option

capping and decapping

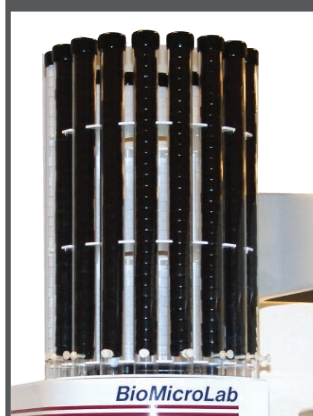
Decap 150 vials per hour

The XL100 & XL200 can be configured to cap and decap individual tubes. Caps are removed to enable liquid handling or volume detection tasks. The vial can be re-capped with either the original cap or a fresh cap. Compatible with 2-8mL glass screw cap vials, cryovials, and closures from Wheaton, Kimble-Chase, Qorpak, Sarstedt, Corning, Greiner, Nunc and many more. Integrated cap feeders that supply fresh caps are also available.

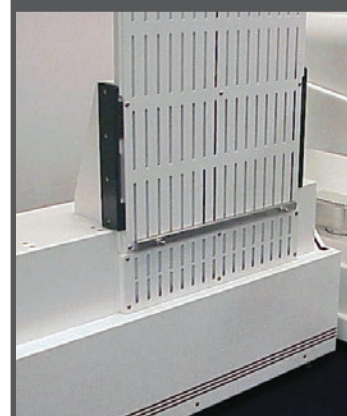
5-Place Automated Balance with Exterior Display



Carousel Cap Feeder



Inline Cap Feeder



Integrated with Labeler



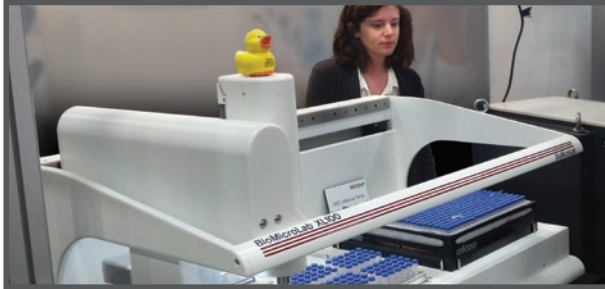
Capping and Decapping



XL100 & XL200

Vial Based Liquid Handling Platforms for Sample Management

Cold Room Compatibility



cold room compatibility and sample temperature integrity systems

The XL Series accommodates lab requirements for maintaining sample temperature. Cold room compatible XL Series units are capable of operation to -10°C. A variety of Solid State Cooling and MéCour thermal block options are also available to guarantee precise sample temperature integrity ranging from -85°C to 80°C.

vial racks

Many original manufacturer tube racks are fully compatible with the XL Series. We offer durable aluminum rack/vial holders for tubes and vials when racks are not readily available.



XL series work list manager software

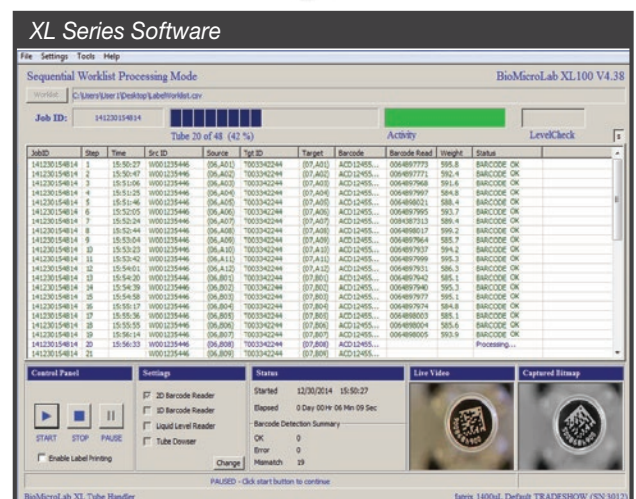
User-friendly Windows based software is included with all XL Series instruments to provide control of all robotic operations with several processing modes. Output files can be configured to meet your LIMS system requirements. Easily managed by multiple users, our full featured tube processing software provides advanced settings for unattended operation to meet your group's throughput requirements.

Instrument and Workflow Integration

BioMicroLab offers SDK software developer toolkits for laboratories developing in-house custom programs to control instrument operation, integrate other robotics, or streamline the processing of input and output files.

Liquid Handling Software

Platforms with the liquid handling pipette module are deployed with additional XLPlus Software which provides greater flexibility for liquid handling operations. Users employ editable XML scripts to control robotic functions and input work lists to manage sample transfer volumes. User-defined script files, input files and output files allow for numerous types of liquid handling applications and provide programming flexibility for many years of use.



specifications

Model	Capacity	Compatible Vials	Dimensions / Weight (depends on configuration)
XL200	30 Racks 28 with LabelPro	All ANSI/SLAS and custom racks and tubes and vials 200µL - 20mL, up to 125 mm tall	122cm x 77cm x 86cm (48" W x 30.5" L x 34" H) ~79kg (175lbs)
XL100	20 Racks 18 with LabelPro		102cm x 67cm x 71cm (40" W x 26.5" L x 28" H) ~63.5kg (140lbs)
Electrical: 110-220 VAC 50/60Hz Operating Environment: 10°C to 40°C, 10-90% RH [Standard]; -4°C to 40°C, 10-90% RH [Cold Room Model] System Requirements: Windows 10, 8, 7 - 2 GB RAM Recommended - One USB 2.0 port			