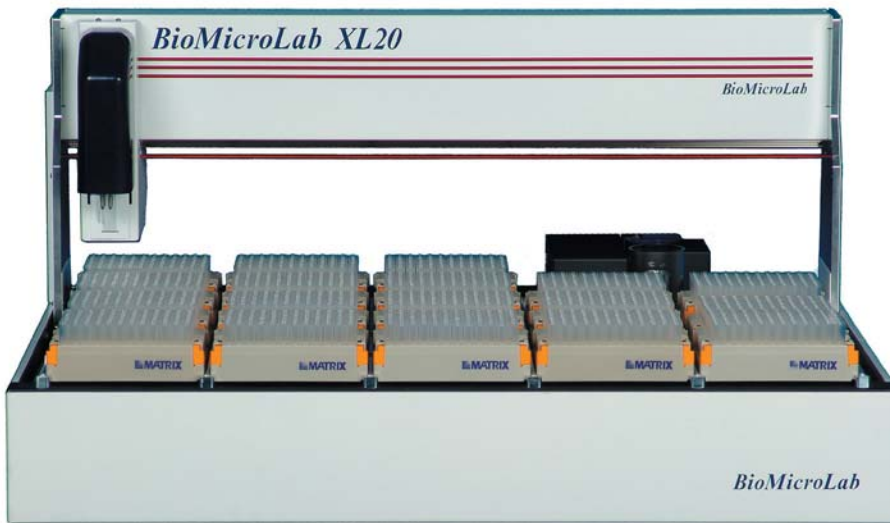


## Benchtop Robotic Tube Handler

Sort, weigh, & scan 96 tube rack samples

Compatible with ABgene, MATRIX, & Micronic 96 tube rack labware



## FUNCTIONS:

### Tube Sorter

- Sorts 900 tubes/hour
- Re-array & cherry pick samples

### Analytical Balance

- Weighs 300 tubes/hour
- 0.0001g readability

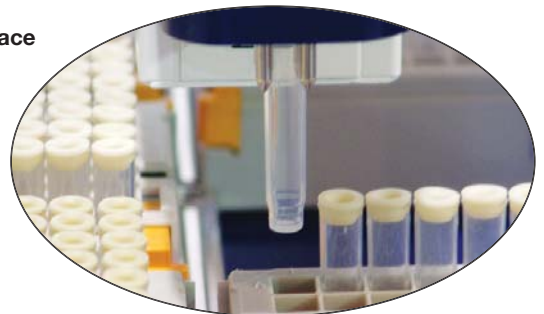
### 2D Scanner

- Scans 2D marked tubes
- Automates sample management

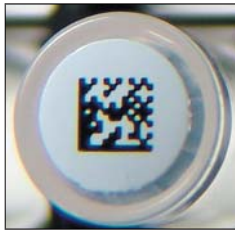
## XL20 Tube Handler

- Sorts & tracks sample tubes
- Weighs tubes (tare & gross weights)
- Work list based operation
- LIMS connectivity
- Designed for continuous duty
- Efficient for small or large projects
- Fast unattended operation

XL20 pick and place robotics



# XL20



## XL20 with 2D Scanner Technology

The 2D marked sample tubes feature a 2D grid barcode located on the bottom of the tube. This provides a unique ID number for each sample tube. The XL20's built-in 2D scanner identifies the 2D mark on the tube as it moves from rack to rack, or from rack to analytical balance. The XL20's 2D technology allows reporting tube location and weight data to LIMS systems.

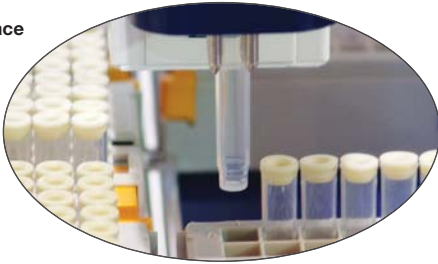
XL9 Tube Handler  
18" wide



XL20 Tube Handler  
28.5" wide



XL20 pick and place  
robotics



## XL20 Tube Sort and Weigh Operation

The XL20 Tube Handler automates transferring tubes between multiple 96-tube racks. The XL20 processes tube sort and weigh operations using tube rack data from the user work list. A tube weighing mode allows automatic capture of tube tare, gross, and net weights.

The XL20 software guides the loading and unloading of tube racks allowing for quick setup of complex sorting projects. The XL20 is operable by a wide variety of users.

With best-in-class features such as individual tube identification, bar coded rack setup, detailed log files, and encoder based robotics, the XL20 is designed to bring commercial scale tube handling to the benchtop.

## XL20 Description

- Robotic sort and weigh system for sample tubes in 96 tube racks

## XL20 Instrumentation Options

- Analytical Balance measures tube weight (0.0001g readability)
- 2D Scanner reads 2D ID mark (located on bottom of tube)
- Barcode Scanner reads barcode ID mark (located on side of tube)
- Temperature Sensor measures tube temperature (reflective IR)

## XL20 Robotics Platform

- Base model XL20 platform holds 20 tube racks (1,920 tubes)
- Encoder based robotics and precision bearings provide high reliability

### Model

Base Model XL20:	20 tube racks
Base Model XL20 with Analytical Balance:	18 tube racks
Base Model XL9:	9 tube racks
Base Model XL9 with Analytical Balance:	7 tube racks

### Capacity

## XL20 Software Features

- The user's work list (.CSV file) controls tube sorting and weighing
- XL20 software guides user through tube rack loading process
- Software generates output files for LIMS sample management
- Optional: XL20 Active X control software

## Performance

- Sorts 900 tubes per hour - sort only mode
- Sorts 500 tubes per hour - sort and 2D scan mode
- Weighs 300 tubes per hour - sort and weigh mode

## Labware Compatibility

- SBS standard 96-tube rack
- Plastic or glass tubes: 0.5 ml to 1.4 ml volume
- Additional tube size support available

## Operating Requirements

- Electrical: 110-220 VAC 60Hz
- Environment: 10° C to 40° C, 10-90% RH Standard model
- Environment: 4° C to 40° C, 10-90% RH Cold room model

## PC System Requirements

- Windows 2000 / XP PC

## Machine Specifications:

- Weight: XL20: 60 lbs.  
XL9: 40 lbs.
- Dimensions: XL20: 28.5" W x 21" D x 16" H  
XL9: 18" W x 17" D x 16" H