CLINICAL LABORATORY SOLUTIONS

Pre-analytic, Post-analytic and Front-to-Back Workflow Automation







A global leader in robotics and automation solutions, Yaskawa has become synonymous with advanced technology and groundbreaking innovation.

With solutions tailored for nearly every application and operations in dozens of countries, Yaskawa is proud to serve leading companies in diverse industries throughout the world.

- · Over 300,000 robots and automation systems installed
- · Offices in 28 countries
- · Solutions for every industry and application
- Ongoing contributions to workforce development and STEM-based education
- 100 years of innovation history
- · Continued R&D investment for emerging markets

Customer Satisfaction

Yaskawa delivers unmatched support for clients worldwide, including troubleshooting, maintenance, life cycle management and more.

Your commitment to your client is to provide accurate results, on time, every time.

Whether your laboratory processes one thousand specimens a day or one hundred thousand a day, you rely on your staff and equipment to correctly identify each specimen, to prepare each specimen for testing, to route to the proper department quickly and to maintain specimen status and traceability.

THE YASKAWA ADVANTAGE

Yaskawa Motoman designs, manufactures and supports our equipment enabling you to meet your client's expectations, every day. Yaskawa's standalone and track-based specimen processing systems provide:

- Quality: Features robust construction and minimal maintenance requirements
- Efficiency: Achieve high consistency in Turn Around Time (TAT)
- Flexibility: Adapt to the reality of <u>your</u> laboratory with flexible, configurable solutions
- Compatibility: Connect with your IT infrastructure, providing processing information and specimen traceability to maintain control of your workflow
- Scalability: Evolve to add/change processes, throughput and configuration as your business changes
- Performance: Deliver throughput rates to meet the needs of moderate volume labs up to the largest commercial laboratory operations in the world

PRE- AND POST-ANALYTIC AUTOMATION

OPTIMIZE AND AUTOMATE WORKFLOW

Yaskawa Motoman offers automation solutions for labor-intensive, high throughput areas of the clinical diagnostic lab. Standalone workcells provide "task-targeted" process automation, while integrated systems with a specimen transport conveyor process each specimen as needed to complete the full pre-analytic sequence. Ready-to-load specimen racks are delivered to the diagnostic instruments. Following completion of the analytic sequence, specimens may be recapped, logged and racked for archive storage.

AutoSorter™ 1200

Input from drawer-loaded racks or conveyor. Reads barcode and sorts to target racks. Accepts wide variety of specimen configurations and target racks. Logs and consolidates post-analytic specimens for archive.

Throughput: 1,200 tubes per hour

Aliquoter

Produces up to 20 labeled daughter tubes per parent, each with volume as instructed by the LIS. Automatically detects clots and QNS. Accepts a wide range of parent tube configurations.

Throughput: 250 daughter tubes per hour

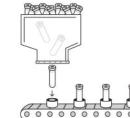
Decapper

Removes Hemogard™, rubber stopper and threaded caps from most common tube sizes. Container is isolated from other tubes during decap process to protect against cross contamination.

Bulk Loader

Tubes are hopper loaded, singulated and oriented. Barcode is read before placing tube in puck and linking to RFID.

Throughput: 1,000 tubes per hour



Closes post-analytic tubes tubes with a plastic insert that may be removed manually or automatically. may be capped.

Throughput: 1,000 tubes per hour

Container Scanning System

Captures image of specimen container and label to identify specimen or analyze label contents. Cap color, tube type, data matrix codes and text may be analyzed to determine the specimen processing sequence.

Throughput: 1,000 tubes per hour

Custom Process Solutions

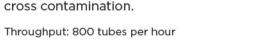
Yaskawa Motoman offers extensive process engineering and development capabilities to address unique specimen processing and other clinical lab workflow needs. Solutions include: thaw and mix, relabeling, kitting, instrument connectivity, IT solutions and custom rack development.











Recapper

and aliquot parent/daughter Many sizes and styles of tubes



- · Manages workflow of specimens through the pre- and post-analytic process sequence
- Integrates components of the automated system (sorters, conveyor system, decappers, recappers, CSSs, etc.)

LEARN MORE

Ready to explore the impact that automation can have for your specific laboratory operations?

For more information visit our website: motoman.com/specimen-processing

- · Connects to the LIS to exchange specimen processing data and history
- Expandable and reconfigurable to accommodate volume increases, workflow changes and additional process equipment



Lab IT Connectivity

Laboratory workflow intelligence is a valuable element of operating an efficient and accurate lab. Yaskawa's process automation systems are engineered to collect and analyze specimen processing data. Multiple connectivity and configurability options facilitate data exchange across information systems and ensure compatibility with future IT architecture.

Standalone Products

AutoSorter III

Multifunction workcell provides sorting, centrifugation and decapping, as well as post-analytic archive rack load/logging for moderate volume lab environments. Labs rely on this robust instrument to maintain consistent workflow and relieve staff of repetitive and stressful tasks.

- Walk-away, pre-analytic processing
- Accepts a wide range of tube configurations
- Iterative processing of shared specimens

Throughput: up to 800 tubes per hour without centrifugation

Bulk Sorter

High-throughput, front-end sorter for commercial lab workflow optimization. Hopper-loaded specimens are sorted to 24 output targets, each holding up to 200 tubes. Most common tube configurations are allowed. The input hopper may be replenished and the output bins emptied without interrupting operations.

- Robust construction for high duty cycle use in demanding lab environments
- Easily reconfigurable for different sorting routines
- IT connectivity facilitates sort instruction and results reporting

Throughput: 2,000 tubes per hour





Since its founding in 1915, Yaskawa has delivered breakthrough innovations to help customers increase efficiency, improve quality, boost productivity and achieve outstanding ROI.

YASKAWA

motoman.com













Headquarters

Yaskawa America, Inc. Motoman Robotics Division 100 Automation Way Miamisburg, OH 45342 Tel: 937.847.6200

Additional Locations

Detroit, MI, USA Irvine, CA, USA Mississauga, Ontario, Canada Pointe Claire, Quebec, Canada Aguascalientes, Ags., México Apodaca, Nuevo León, México El Marques, Querétaro, México Diadema, São Paulo, Brazil