CLINICAL LABORATORY SOLUTIONS

OPTIMIZE AND AUTOMATE WORKFLOW

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

Optimize and Automate Workflow

Yaskawa 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

**Bulk Loader**
- Tubes are hopper loaded, singulated and oriented. Barcocode is read before placing tube in puck and linking to RFID.
- Throughput: 1,000 tubes per hour

**Decapper**
- Removes Hemogard™ rubber stoppers and threaded caps from most common tube sizes. Container is isolated from other tubes during decap process to protect against cross-contamination.
- Throughput: 800 tubes per hour

**Recapper**
- Closes post-analytic tubes and aliquot parent/daughter tubes with a plastic insert that may be removed manually or automatically. Many sizes and styles of tubes may be capped.
- Throughput: 1,000 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 tube in puck and linking to RFID.
- Throughput: 340 daughter 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

**Centrifuge**
- A robot loads/unloads the racks outside the centrifuge while the in-process tubes are being spun. When the cycle is completed, the racks are exchanged, and the cycle is started.
- Throughput: 250-300 tubes per hour

**Thaw and Mix**
- Frozen and/or ambient samples are picked from the conveyor and placed in position on the thawing deck, while ambient air is directed at each tube to facilitate thawing. At completion of the programmed thaw time, tubes are removed from the deck and “rocked” to mix the specimen, then returned to the conveyor.
- Throughput: approx. 1,000 tubes per hour

**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.

**THE YASKAWA ADVANTAGE**

- **Quality**: Features robust construction and minimal maintenance requirements
- **Efficiency**: Achieve high consistency in Turn Around Time (TAT)
- **Flexibility**: Adapt to the reality of your 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

Ready to explore the impact that automation can have for your specific laboratory operations? For more information visit our website: motoman.com/specimen-processing
STANDALONE PRODUCTS

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

AutoSorter 1200
High-speed sorting instrument for pre- and post-analytic specimen processing. Operates as a “standalone” sorter or as one in a series of connected instruments on a puck-based track. Ten drawers hold up to 1,380 tubes. Accepts common tube sizes in mixed batches.
• Accommodates various instrument-specific or generic racks and trays
• IT connectivity facilitates sort instruction and results reporting
• Available with optional foil sealer module for integrated seal/archive operation
Throughput: 1,200 tubes per hour

GLOBAL LEADERSHIP, LOCAL SUPPORT

A global leader in robotics and automation solutions, Yaskawa is 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 500,000 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.

Yaskawa is the leading global manufacturer of industrial robots, low and medium voltage variable frequency drives, servo systems and machine controllers. Our standard products, as well as tailor-made solutions, are well known and have a high reputation for outstanding quality and reliability.