

YASKAWA

RETHINK WHAT'S POSSIBLE

MACHINE PERFORMANCE IN PACKAGING AUTOMATION



PERFORMANCE MATTERS



YASKAWA EXPERIENCE: BY THE NUMBERS



*Based on 2021 reported sales. For reference only.

From case packing to labeling, filling to palletizing, Yaskawa can increase pack rates, improve throughput, and simplify motion and robotic control to maximize the performance of your machine.

WOULDN'T IT BE AWESOME IF...

You had an automation partner that provided:

- Global expertise
- Proven quality and reliability
- Result-driven motion solutions
- Award-winning customer service
- Lifetime product training and support
- No costly support contracts

"We've never had to replace a Yaskawa motor or cable in the field. And that's something that speaks for itself."

—VP of Sales, Pharmaworks

REDEFINING WHAT'S POSSIBLE

Solving problems is in our DNA. We embrace the toughest challenges and solve the biggest problems. Dedication to engineering and innovation is what makes us different.

PERFORMANCE FOR YOUR PLATFORM

PLC PLATFORM SOLUTIONS

Improve PLC-based machine performance with the quality and reliability of Yaskawa motion control

We've done the heavy lifting to make Integration of Yaskawa servo, robotic, and variable frequency drive components simple and effortless for your PLC environment

SIGMALOGIC7 SERVOPACKS

SigmaLogic7 Compact SERVOPACKS make it possible to add the superior performance and unmatched reliability of a Yaskawa servo system to your machine, without leaving the familiar programming environment of your existing programmable logic controller. Yaskawa Add-On-Instructions allow you to use direct commands or a complete motion sequence table.

VARIABLE FREQUENCY DRIVES

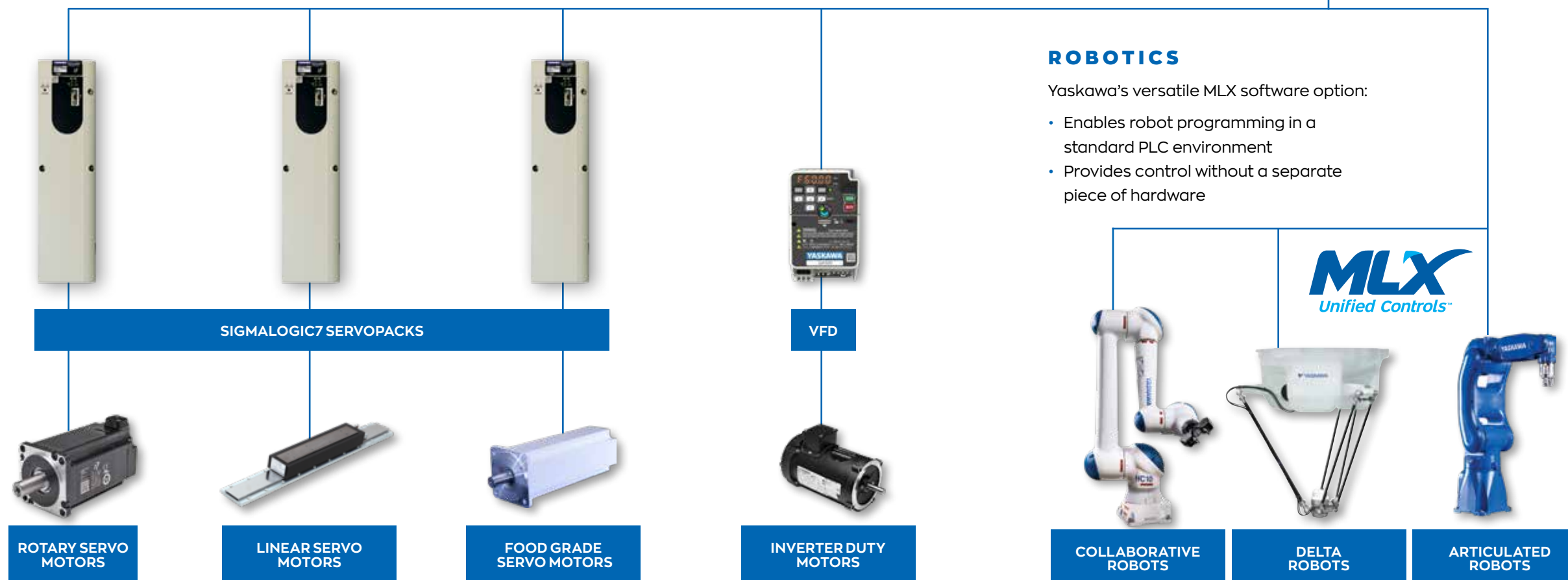
- **Tag Generator:** Easily create a tag file that can be imported into Logix Designer/RSLogix 5000
- **Faceplates:** Import faceplates into FactoryTalk View to access commonly used parameters and monitors
- **AOI:** Using Yaskawa EtherNet/IP option, our library of AOI can be imported into Logix Designer/RSLogix 5000

MOTION SEQUENCING WITH ADD ON INSTRUCTIONS (AOI)

Utilize Yaskawa-written, Yaskawa-tested AOIs in RSLogix5000 software, with a ControlLogix or CompactLogix PLC.

- Perform functions including point-to-point and blended moves, jogging and homing
- Use direct commands or 200-point configurable sequence table
- Utilize extra 7 inputs and 3 outputs on SigmaLogic7 SERVOPACK
- Utilize LogicWorks software to download sequence and configuration data

EtherNet/IP™



ROBOTICS

Yaskawa's versatile MLX software option:

- Enables robot programming in a standard PLC environment
- Provides control without a separate piece of hardware

YOU GAIN

YASKAWA QUALITY

Highest mean time between failures in the motion control industry with typical product lifespan of over 25 years.

25+ YEAR PRODUCT LIFE CYCLE

Our Sigma-7 servos are scheduled to stay in production until 2030 with 10 years of support afterward.

INVENTORY

The industry's largest stock of exchange inventory with \$15 million of servo products in stock, ready for overnight delivery.

NO COSTLY SERVICE CONTRACTS

No charge for complete technical support to designers, machine builders and end users.

PERFORMANCE FOR YOUR PLATFORM

STANDALONE MACHINE CONTROLLER SOLUTION

Yaskawa Singular Control unifies the control of servos, variable frequency drives, and robot mechanisms.

ONE SOFTWARE

ONE CONTROLLER

FOR ALL MOTION

- SERVO
- VFD
- ROBOT

Simplicity Matters. Our Singular Control solution powers multiple robots along with dozens of axes of automated motion with a single controller and a single programming environment, communicating over a high-speed deterministic network.

The heart of Yaskawa's Singular Control solution is the MP3300iec controller and its IEC61131-3 compliant MotionWorks IEC software, which supports both ladder logic and PLCopen function block programming.

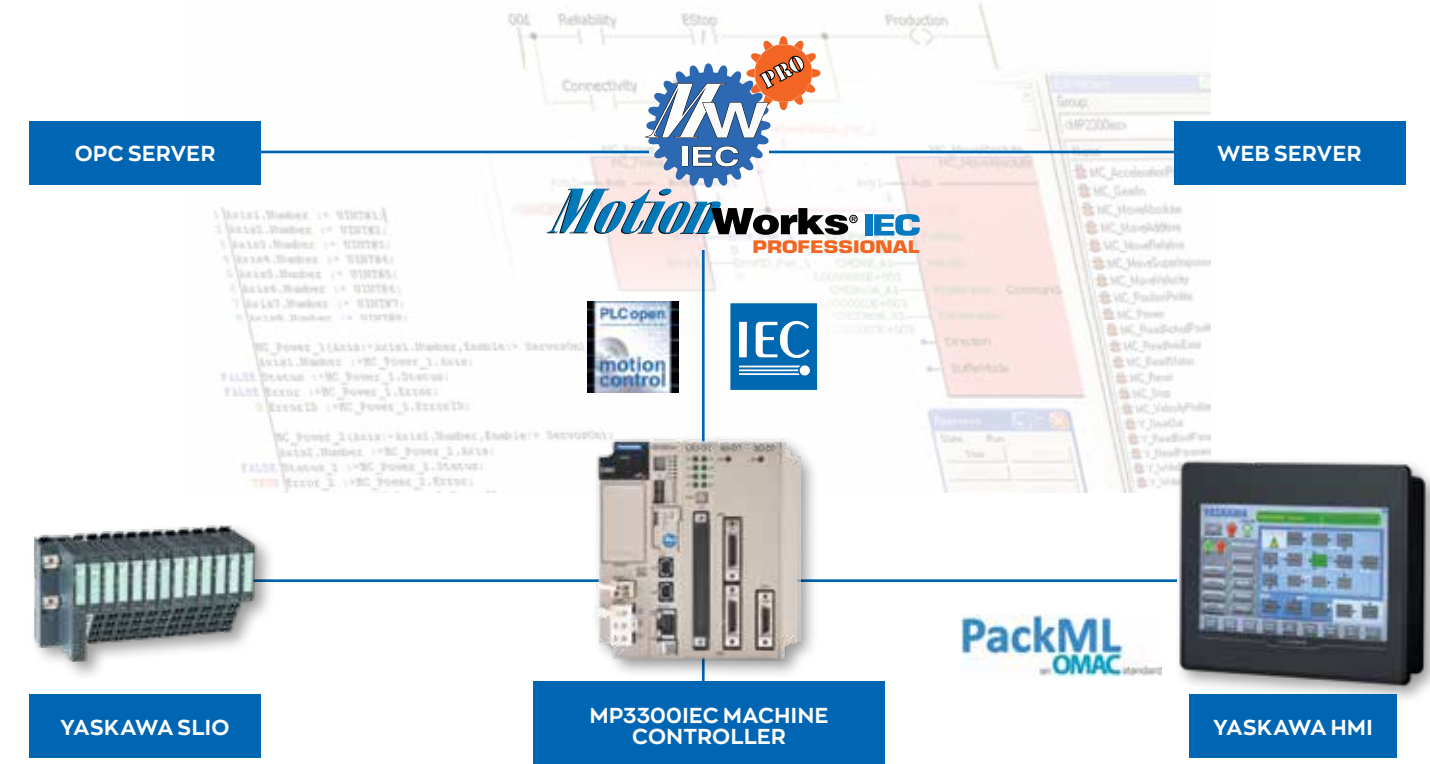
Simplify design, maintenance, and training for engineers, while drastically reducing development and machine commissioning time with Singular Control.

SINGULAR CONTROL™



MotionWorks® IEC PROFESSIONAL

Yaskawa's IEC61131-3 programming environment, MotionWorks IEC, enables programmers to take advantage of Ladder Logic, Structured Text, and Function Block Diagrams (best suited for machine control).



PERFORMANCE FOR YOUR PLATFORM

ETHERCAT INDUSTRIAL NETWORK SOLUTIONS

Plug-and-play EtherCAT functionality on our Sigma-7 SERVOPACKS means immediate compatibility, faster refresh rates and minimum system infrastructure for extra cost effectiveness.

SIGMA-7 SERVOPACKS

Yaskawa offers EtherCAT-compatible models for our entire range of Sigma-7 SERVOPACKS. All of the features and benefits of the Sigma-7 servo system are available when used on an EtherCAT network,

- Dual axis SERVOPACKS
- World class vibration suppression
- Ripple and friction compensation
- Advanced autotuning
- Tuning-less commissioning right out of the box.

VARIABLE FREQUENCY DRIVES

Yaskawa variable frequency drives are available with an easy-to install, plug-in EtherCAT option card to enable easy and quick integration into your EtherCAT network.

The EtherCAT option card allows you to operate the drive, monitor its status, and change parameters from an EtherCAT master device.

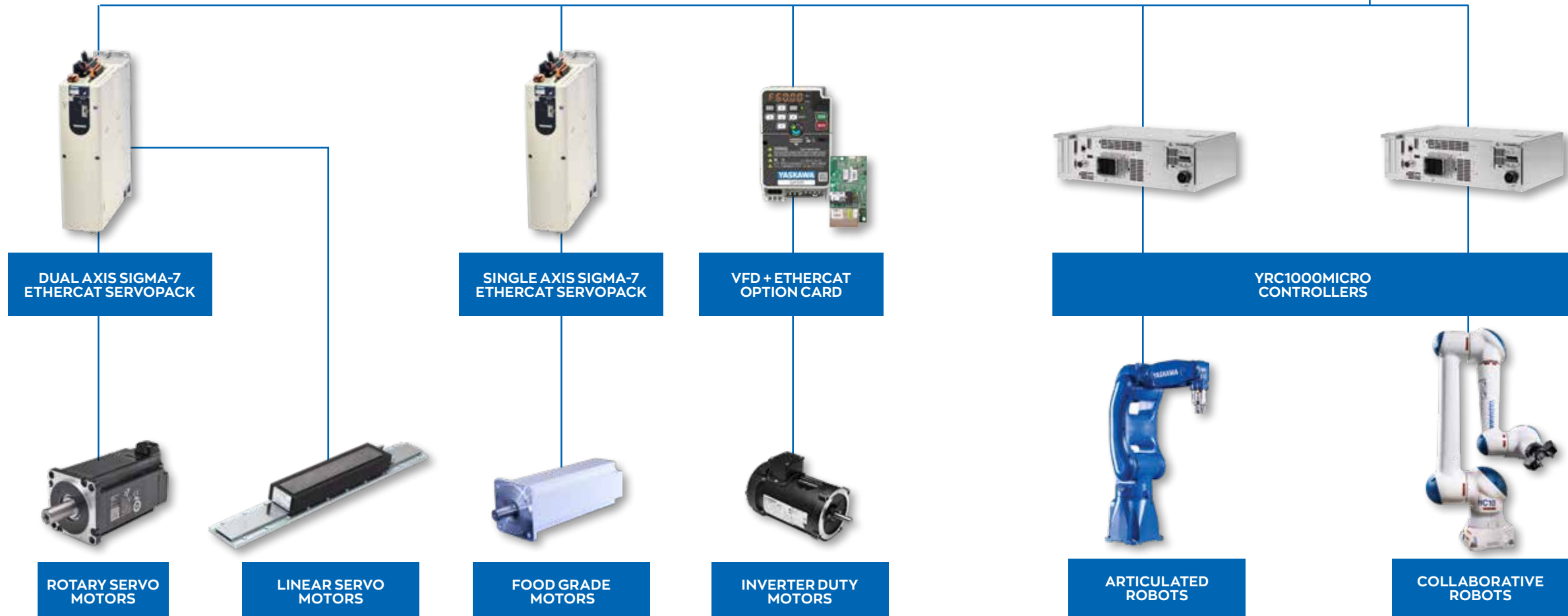


LEVERAGING HIGH-SPEED REAL TIME CAPABILITY FOR ETHERNET

EtherCat pushes the bounds of network performance and continues it's growth in the industrial marketplace. As packaging equipment becomes more complex and data intensive, an EtherCat network optimizes performance, and is only as good as the EtherCat master and the EtherCat components it's driving.

ROBOTICS

Yaskawa robots interface I/O over EtherCAT to start, stop, and run programs via the EtherCAT master.



YOU GAIN

NETWORK PERFORMANCE

Overall ethernet performance is maximized with high speed and network efficiency.

HIGH SPEED SYNCHRONIZATION

Exceptional coordination between multiple devices is attained with this network protocol making it one of the fastest industrial protocols.

SAFETY

EtherCAT provides a safety protocol which is fast becoming an industry standard.

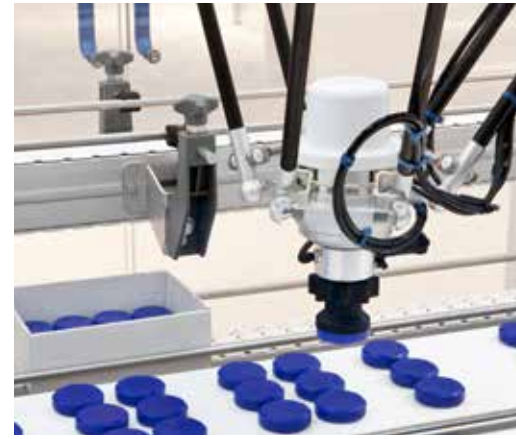
FLEXIBILITY

EtherCAT's flexible topology allows for a variety of devices and configurations to meet the most challenging demands.

PACKAGING ROBOT PORTFOLIO

BRING FLEXIBILITY TO YOUR MACHINE

Whether your focus is food and beverage, pharmaceutical, consumer products, or specialty items, our full suite of robots make it easy to configure, program, and integrate the ideal solution.



PACKAGING ROBOT RANGE OF CAPABILITY



ENGINEERING AND CUSTOMIZATION

DON'T LIMIT YOURSELF WITH A STANDARD SOLUTION

Let Yaskawa help make it the **RIGHT** solution...

ROBOTIC MECHANISMS

Yaskawa partners with industry leading multi-axis robotic mechanism manufacturers to compliment its robotics portfolio and provide complete standard and custom solutions.

- H-Bot and T-Bot systems
- Multi-axis gantry systems
- Delta robots
- Cartesian robot systems
- Primary/secondary/tertiary packaging



CUSTOM MECHANISMS

Yaskawa's two Engineered Systems groups in Santa Clara, CA and Plain City, OH work as an extension of your Engineering team to develop custom robotic mechanisms for your most challenging applications.

Let Yaskawa help develop your custom mechanics and any necessary kinematics.

KINEMATICS

Yaskawa offers standard kinematics for most mechanical gantry systems and can design kinematics for any type of robotic mechanism.

ENGINEERED SYSTEMS GROUP

Yaskawa's Engineered Systems Group is where special customer needs become customized control automation solutions.

Yaskawa is known for creating exceptionally capable motion automation components.

It is only natural to back up this reputation with an exceptional ability to help customers put them to use.



CONTROL SYSTEMS

Our Engineered Systems team is equipped to handle every facet of designing new automation controls or improving existing ones.

- Mechanical systems
- Control architecture
- Wiring and assembly
- Shipping, stocking and fulfillment

CUSTOM PANELS AND ENCLOSURES

Our work includes top quality Yaskawa components, with hardware, cabinetry and connectors to match.

CUSTOM CABLES AND CONNECTORS

Everything from supplying connectors and raw wire to manufacturing, shipping and stocking finished wiring assemblies for your packaging line.

- Custom lengths and connectors
- Complete harnesses
- Special connectors and installation
- JIT/stocking programs

UPGRADES/RETROFITS AND UPDATING

Improvement of the control systems in your current machinery is our core competency, whether upgrading an existing Yaskawa solution or taking on a complete machine upgrade. We can supply completely new controls, or upgrade specific components in an existing system to improve machine performance and cut cost. Upgrade kits can also be created for owners of machines already in operation.

SERVICE AND SUPPORT

When our Engineered Systems group creates a solution, we back it up to the fullest.

- Engineering technical support
- Onsite support and startup
- Customer-specific training

PRODUCTS THAT PERFORM

You no longer need to settle for “good enough”.

SERVOPACKS

Sigma-7 offers a wide product range with single and dual axis models and connectivity with our open high speed MECHATROLINK network, as well as EtherCAT and Ethernet/IP networks.

- Simple commissioning through automatic motor recognition
- Advanced suppression technology that eliminate unwanted vibration, ripple, friction, resonance and EMI

Maximize performance with Yaskawa SERVOPACKS!



SIGNALOGIC7 WITH ETHERNET/IP

- Add On Instructions (AOIs) for use with Rockwell PLCs
- Dual EtherNet/IP ports onboard
- Perform automation functions without learning new software
- Basic point to point moves, blended speed moves, homing, jogging, electronic gearing

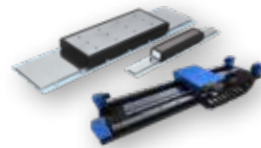
SERVO MOTORS

Yaskawa offers the most reliable, highest quality rotary, linear, direct drive, and food grade motors in the industry with outputs ranging from 3 W to 55 kW



ROTARY

Our segmented stator design and precise winding technology packs more torque into less space for an easy fit into your tightest application.



LINEAR

Replace the backlash, friction, inertia and wear of mechanical linkages with smooth, precise, high performance linear motion in a compact footprint.



DIRECT DRIVE

Eliminate gear reduction with a direct coupling to the machine load to simplify your design and experience fewer breakdowns and long-term reliability you can trust.



FOOD GRADE

Yaskawa offers epoxy coated motors designed specifically for food processing. Their smooth housing minimizes entrapment areas while they withstand repeated high pressure wash down.



MACHINE CONTROLLERS FEATURING



You need powerful processing to prepare for tomorrow's innovations, without sacrificing today's cost effectiveness and ease of use. The MP3300iec machine control offers both, plus extra features that add user flexibility.

- Up to 62 axes of motion control utilizing IEC 61131-3 and PLCopen global programming standards
- Sigma-7 servos via high-speed deterministic network
- Built in web server for troubleshooting and to reduce maintenance time and cost
- EtherNet/IP and Modbus TCP connectivity

VARIABLE FREQUENCY DRIVES

Sustainable, Flexible, Easy. Yaskawa drives offer simple motor setup with highly flexible network communications, embedded functional safety, no-power programming, and easy-to-use tools featuring mobile device connectivity with our DriveWizard mobile app

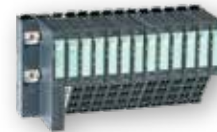


ROBOTICS

Yaskawa offers articulated, delta, SCARA, and collaborative packaging robot models compatible with simple-to-integrate robot controllers, as well as our MotionWorks IEC programming environment.

HMI PRODUCTS

Yaskawa offers a range of HMI to meet your application needs. Use our smartPanel and Panel PC solutions to monitor and interact with your machine easily and reliably.



INPUT/OUTPUT

Yaskawa SLIO is one of the most effective and modern decentralized I/O systems available,

PERFORMANCE MATTERS

Align yourself with a partner who believes that “good enough,” isn't good enough.

YASKAWA.COM



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

YASKAWA

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