YASKAWA Electric (Global)
Your First Choice for Automation

YASKAWA Electric is one of the world’s leading manufacturers in the fields of drive technology, industrial automation and robotics. Founded in 1915, we see ourselves as a pioneer in these sectors, always striving to optimise the productivity and efficiency of machines and industrial systems with our innovations.

For almost 100 years now, our products and solutions have been supporting automation in a wide variety of industrial processes including mining, mechanical engineering and toolmaking, as well as the automotive, packaging, wood processing, lift, textile and semiconductor industries.

- Founded in 1915
- 14,600 employees worldwide
- Installed units:
  - 18 million inverter drives
  - 10 million servo drives
  - 270,000 industrial robots
- Over 1.8 million inverter drives produced each year
- Over 800,000 servomotors produced each year
- Over 22,000 robots produced each year
- Over 60 subsidiaries worldwide

(FY 2013)

The activities of YASKAWA Electric are divided into 4 areas:
Motion Control (inverter drives, servo drives, servomotors, machine controllers), Robotics (industrial robots, service robots, robot systems), System Engineering (medium-voltage inverters, generators and converters) and Information Technology (software, information processing).

Motion Control
Servo drives, inverter drives, PLCs, machine controllers, HMs, I/Os

System Engineering
Ready-to-use products and customer-specific solutions

Robotics
Broad range and industry solutions for automotive manufacturing, the semiconductor industry and laboratory technology

Information Technology
Development of software and peripheral devices for computers

YASKAWA Electric Manufacturing Co. established as a limited partnership

YASKAWA Electric Manufacturing Co. Ltd. established

Technical tie-up with Brown, Boveri & Co., Ltd. (Switzerland) for DC motors

Yukusha plant opened
YASKAWA Europe
Your Competent Partner for System Solutions

Based in Eschborn, Germany, YASKAWA Europe offers mechatronics and robotics solutions for companies throughout Europe, the Middle East, Africa and the CIS states. With subsidiaries in these regions and European production sites, we are within close reach of the markets’ requirements. Since late 2012, VIPA has been part of the YASKAWA family, where it joined Drives & Motion and Robotics as a third division. The company is based in Herzogenaurach, Germany, and develops and produces PLCs, I/O systems and advanced industrial HMIs.

Drives & Motion Division
Inverter drives, servo drives and machine controllers, as well as customer-specific drive and control systems from YASKAWA have been proving themselves on the market for years. Our experience with flexible automation solutions and expertise in numerous branches makes us a competent partner for developing system solutions.

Robotics Division
The broad range of MOTOMAN industrial robots from YASKAWA is ideal for many applications, industries and ready-to-use solutions. Our products have an excellent reputation for precision and reliability in numerous sectors such as welding.

VIPA Division
For years now, VIPA has been driving innovation in the fields of PLCs and HMIs. This means that VIPA rounds out the YASKAWA portfolio of central controller products and allows our customers to purchase powerful integrated systems from a single source.

- Over 1,250 employees in Europe
- Over 30 subsidiaries
- 7 production sites
- European product development, application support, sales, consulting, repairs, service and training

1958 DC servo motors “Minertia motor” developed
1961 Kokura plant opened First DC disc motor
1964 Tokyo plant opened
Development and Production Close to the Market

Top quality, market-driven products and tailored solutions are the secrets to the success of YASKAWA. The European market in particular demands the highest levels of expertise and flexibility from the engineers in our research and development department. Technical expertise, work in international networks, precise knowledge of markets and customer-specific applications – these are the key factors that set YASKAWA apart. More than 100 engineers at 6 European locations ensure that our components and solutions meet regional market requirements and all our customers’ demands.

Objectives & focuses:
- Localising products
- Custom production for customers in Europe
- Customer-specific developments
- Integrated solutions
- Optimisation for the European market

Key fields:
- Developing systems and technologies for European markets
- Feasibility studies
- Simulations, analyses and tests
- Customer consultations
- Project management
- Sharing technology with other R&D departments in worldwide YASKAWA network
- Providing tailored solutions
- Training

European standards differ from those of other markets in many ways. As a global company, we adapt products to the requirements of the target markets. This applies both to standards and directives, and to concrete solutions and products.
Comprehensive Support for Our Customers

YASKAWA Europe offers individualised service and support for machines and systems in various industries. We help our customers to work efficiently and achieve the best results for their own customers. Our technicians, engineers and specialists in service and support are highly qualified and ready to offer our customers their expertise throughout the entire product life cycle. In addition to tailored solutions for our customers, this also includes assistance with mechanical installation, assembly and start up.

YASKAWA Service & Support offers:
- Support for product applications
- Process optimisation and product modernisations
- Installation and start up
- Service, warranty and maintenance agreements
- Preventative maintenance
- Product, application and maintenance training
- Repairs at the factory and on site
- Comprehensive error reports
- Spare parts
- Inventory and logistics programme
- Error analysis and troubleshooting

The extensive YASKAWA service network with subsidiaries and local partners throughout Europe and the world ensures reliable customer service and technical support, no matter where you are. With over three decades of experience in Europe and a global network, we’re your powerful partner for start up processes. We also offer comprehensive service packages and help you modernise your systems.
VIPA Control Systems, I/Os and HMIs

VIPA has been an innovator in the fields of automation technology and control solutions for years, and the highly advanced products it develops in the PLC sector have given it a solid position in the industry. The Herzogenaurach-based company also offers I/Os with and without a control function, as well as HMIs for industrial applications. In late 2012, VIPA joined Robotics and Drives & Motion to become YASKAWA Europe’s third division.

VIPA is committed not only to developing innovative products, but also to ensuring the quality of these products. That’s why the company strives to consistently apply modern methods of quality assurance to develop and produce all VIPA products with a level of quality that will impress our customers.

Control systems
- **200V - modular**
  - The modular control system for central and decentralised use
- **300S - high speed**
  - With integrated SPEED7 processor for outstanding performance
- **500S - PC-compatible**
  - One of the world’s fastest STEP 7-programmable control systems, especially for use on a PC

SLIO control and I/O systems
- **High-performance backplane bus**
- **Secure sliding mechanism for extremely simple mechanical installation**
- **Space-saving connection technology**
- **For central and decentralised use**

HMIs
- **Line displays**
  - Easy operation and sturdy design
- **ecoPanels**
  - Durable, fast and can be used with many systems
- **Professional panels**
  - Touch panels with a web server whose operation can be controlled from any PC
YASKAWA Drives & Motion

With a profound commitment to research and development YASKAWA has enabled the company to attain a leading position in the motion control and automation technology sectors. Innovations from YASKAWA play key roles in the modernisation of industries such as the mining, steel, semiconductor, packaging and automotive sectors, as well as compressor and lift applications. The corporate philosophy of YASKAWA is all about quality. The proof is the high reliability and low downtime of its products in the field.

**Inverter drives**
- 1/3 – 200 – 400 V, 0.1 – 630 kW
- Medium voltage: 3.7 MVA - 12.0 MVA
- Standard and customer-specific models for special applications in the lift and textile industries, as well as universal inverters
- Matrix converters
- Recovery units

**Sigma-5 AC servo drives**
- Broad power range for numerous industrial applications from 3.3 W to 55 kW
- Standard rotary motors, linear and rotary direct drives
- Linear sliders

**Machine controllers**
- MP2000 standard series and MP2000iec high-performance series
- The MP3200iec series for multi-axis applications with up to 62 axes
- Control for position, synchronised phases, speed and torque
- CAM/electronic shafts
- MA100 motion adapter for simple positioning of multiple servo axes

**Mechatronic systems**
- Beam systems
- Pick-and-place systems
- Gantry systems

**Live-line maintenance robot developed**
First fully digital AC servo drive with precise torque, speed, and position control

**Corporate name changed to YASKAWA Electric Corporation**
AC servo ∑ (Sigma) series developed

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1987 Development of vacuum robots
1988 Tokyo Mechatronics Center opened
1989 First company to implement IGBT modules into general purpose inverters
1988 Power Distribution Equipment plant opened
1991 Corporate name changed to YASKAWA Electric Corporation
YASKAWA Robotics

With 270,000 units installed worldwide, YASKAWA is one of the largest manufacturers of industrial robots. We offer an extensive range of robots, and can provide not only application-specific models such as welding, palletising, painting and handling robots, but also models for laboratory and cleanroom applications, as well as top-quality, ready-to-use welding systems.

Our range also includes universal 4 to 15-axis industrial robots designed for loads from 2 to 800 kg. Application-specific robots for gas metal arc welding, laser welding, palletising and painting round out our portfolio. YASKAWA combines its many years of experience in the system business with an extensive modular positioning range.

Industrialt robots
- 15-axis dual-arm robots
- Articulated 4 to 6-axis articulated arm robots
- Special 7-axis robots
- Delta robots
- Scara robots
- ATEX-compliant painting robots
- Robots with safety functions (ISO 13849-1)
- High-precision robots
- Biomedical robots

Systems
- Arc welding
- Laser welding
- Pallet repairing systems
- Press brake systems
- Handling systems
- PPP systems (picking, packing, palletising)
All-in-one Solutions with YASKAWA

The automation and drive technology of today has to be able to adapt flexibly to changing requirements. There's no one answer for all applications. Every industry needs an individual, custom solution.

YASKAWA offers a full range of drive technology products, along with the necessary control systems. Drive systems that work reliably and efficiently in every environment, industrial robots that consistently make precisely coordinated movements and powerful control systems that can perform commands from management systems or machines regarding storage capacities and speed. We also offer control and visualization devices, powerful motion controllers for a large number of synchronous axes and decentralized I/O assemblies for a wide variety of applications.

The example of a bottling system demonstrates the complex requirements for a solution:

- Process controllers with interfaces for the ERP and MES systems
- Conventional controllers (PLC)
- Numerous digital and analogue inputs and outputs
- Motion controllers for controlling synchronised axes (e.g. for sealing)
- Inverter drives for conveyors
- Palletising robots

YASKAWA is a one-stop shop for complex automation solutions such as special drive packages for lifts, pumps, fans, and packaging and compressor technology. The advantages for mechanical engineers are clear: proven solutions, expert application support and a single contact for everything from planning to start up.

That saves time, energy and money for their core business, designing machines and systems.
European Training Centers – Training and Further Education

Optimise your production processes and boost your efficiency by having your employees trained at YASKAWA. Our qualified trainers and instructors provide cutting-edge technical knowledge in training centres located throughout Europe.

YASKAWA offers an extensive range of courses for participants with a wide variety of requirements – from beginners to experts. Our modular training concept covers product training sessions, courses on application-specific programming, software, maintenance, servicing and planning, as well as refresher courses and training for participants from other fields.

All our courses provide both classroom and practical training units to ensure efficient learning. This guarantees the transfer of knowledge with practical applications which can be used right in the participant’s company after training.

- Training centres in Eschborn, Allershausen and Herzogenaurach, Germany, as well as Kalmar, Sweden
- Training organisations in 15 European countries
- Modular training concept
- Practical training with the equipment
- Broad range of application-specific training options