

Our History and Core Competence

Founding

1915

1950

1970

1990

Motor manufacturer

Automation provider

- Focusing business on electric motors and their applications
- Focusing on motors as hardware and intelligence as software to control motors

- Aiming for mechanical automation by leveraging advancements in control technology
- Aiming to realize "unmanned factory", automated with support of machines

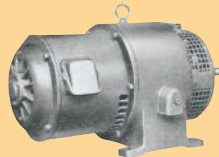
- Proposed the concept of "Mechatronics"
- Aggressively devoted management resources into the rapidly growing mechatronics market; unveiling new products back-to-back
- Changed the company name from YASKAWA Electric Manufacturing Co., Ltd. to YASKAWA Electric Corporation on the occasion of 75th anniversary

System Engineering



1917

Three-phase induction motor
Yaskawa's first commercial product



1953

The first VS motor 5HP
Variable speed motor



Electric product for steel plants

The founding years

The promoter who invested in human resource development

Keiichiro Yasukawa, the promoter of Yaskawa, was born in 1849 in Fukuoka. Following the Meiji Restoration, Keiichiro absorbed new knowledge and philosophies from the West, with which he engaged himself in mining, later expanding his business to spinning, steel, railway and banking.

In 1909, he personally funded the opening of Meiji College of Technology, a vocational school for training engineers. The school later became Kyushu Institute of Technology, and continues to produce numerous engineers to this day.



Keiichiro Yasukawa,
promoter

The founder who worked on the leading-edge technology

At the beginning of the Taisho period (1912-1926), electric motors were starting to advance into all industrial segments as replacements for steam engine. Daigoro Yasukawa, the fifth son of Keiichiro, was among those who learned the fundamentals of such leading-edge technology. In 1915, with his father promising "to provide financial support, but not interfere with the way you run the business,"

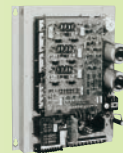
Daigoro founded our predecessor, Yaskawa Electric Manufacturing Co. The company started its business by manufacturing electric mining products, most of which were imported at that time. The domestic electric products were both scarce and technologically several steps behind the imported products, therefore this was a move that went ahead of the time.



Daigoro Yasukawa,
founder

1974

VS-616T
World's first
transistor AC drive



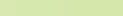
1988

VS-616GILN
World's first IGBT
low-noise AC drive



1984

VS-616HII
World's first digital
control AC drive



1958

Minertia motor
DC servomotor

A motor that became the basis for the servo motor available today. A revolutionary product that had a response rate 100 times greater than conventional motors.



1992

Σ -I
World's smallest and lightest
Frequency response 250Hz

A product that became the basis for industrial robots available today. Yaskawa became the first in Japan to develop and commercialize an all-electric robot.



1969

Registered trademark of "Mechatronics" in 1972

1977

MOTOMAN-L10
Japan's first all-electric articulated robot



1987
First vacuum robot for transfer of semiconductor wafers

Since its establishment in 1915, Yaskawa Electric has defined its area of business as electric motors and their applications, and continued to make challenges in the latest technology of the times. It also led the world in putting forward the term "mechatronics" in the late 1960s. This concept evolved when we combined our customers' machinery (mechanism) with Yaskawa's products (electronics) to create superior quality and function. Yaskawa has contributed to the development of in-

dustry and society with its epoch-making products and technology and a discerning eye for world's-firsts. It will continue to inherit that stance and apply **motion control, robotics, and power conversion, which are its core technologies and competence**, in contributing to resolve issues of a global scale such as declining birthrates and an aging society and challenges with regard to energy and the environment.

100th anniversary of foundation

2010

2016

Mechatronics promoter

- Offering solutions that match changes in society and industry
- Creation of new business by developing applications of mechatronics technology

Total solution provider

- Kick off initiatives to realize Yaskawa Industrie 4.0



Electric product for plants of paper, film and textile



Water and sewerage system



Environment/Energy

AC Drives

1995
VS-616G5
World's first general-purpose vector control AC drive



2005
Varispeed AC
World's first matrix converter



2008
A1000
General purpose, high performance AC drive



2010
PV1000
PV inverter for photovoltaic generation



2011
Enewin series
electric products for large-scale wind turbines



2014
U1000
Matrix converter



2016
GA700
New series of AC drive



AC Servo motors

1997
 Σ -II
World's first serial encoder applied
Frequency response 400Hz



2002
 Σ -III
Frequency response 600Hz



2007
 Σ -V
Frequency response 1.6kHz



2013
 Σ -7
World's best
response performance
Frequency response 3.1kHz



2017
World's first GaN power semiconductor-equipped servo motor with built-in amplifier



Humatronics

2013
MOTOMAN-BMDA3
Biomedical applications



ReWalk
Walk-assist device



LR²
Rehabilitation device for lower extremities



2017
MOTOMAN-HC10
Collaborative robot

Industrial Robots

1998
MOTOMAN-UP6
World's first multiple robot cooperative control



1995
MOTOMAN-SK16
In-house AC servo motor embedded

2005
MOTOMAN-DA20
World's first dual-arm industrial robot for volume production



2008
MOTOMAN-VA1400
World's first seven-axis robot



2016
MOTOMAN-GP8
New model of small robot



2017
MotoMINI
The **smallest and lightest in industry**