

Expanded lineup of compact robot series

1. Expanding the small robot market

Against the backdrop of the worldwide declining birthrate and aging population, the shrinking working population and soaring labor costs, the need for automation by robots is expanding in the field of manufacturing with the aim of eliminating labor shortages and improving productivity.

Particularly, the introduction of small robots is becoming full-fledged in the fields of electrical machinery and electronics and general industrial machinery.

2. Our initiatives

Nachi-Fujikoshi made a full-scale entry into the compact robot market in 2013 with our world's fastest and lightest compact robot model "MZ07". Since then, in addition to expanding the lineup of the "MZ Series", "the EZ Series" wing slicer robots, we have developed the "EZ-series" and the cooperative robot "CZ10" to deepen the cultivation of the small robot market worldwide.

Targeting the fields of electric machinery, electronics, and general industrial machinery, where the need for automation is growing increasingly, we will introduce SCARA robots "EC06" and compact robots "MZ12H" to the market. The "EC06" uses a series of control devices similar to the "MZ series" to facilitate the merger of robots and improve convenience for users.

Constructing diverse systems and applications integrating compact robots will be included in our continuous series lineup expansion with the goal to meet all customers FA needs.

3. Outline of new products

(1) EC06

①.Target markets and needs

Electrical equipment and electronics: Introduction of robotics in full swing toward IoT and 5G compatibility

②.Features

a.Extensive lineup

For three models with a maximum payload of 6kg (rated 3 kg^{*}) and a maximum reach of 500mm, 600 mm, and 700mm different Lineup. It is possible to select the most suitable model for the customer's manufacturing site.

b.High-speed, high-precision operation

Designed to combine weight reduction and high rigidity, high-speed, high-precision operation at the highest level in its class (position repeatability $\pm 0.02\text{mm}$) is what contributes to improved productivity for customers.

c.Smart cable routing

The hollow structure of the tip axis simplifies the routing of tube/hose from the robot body to various tools, Reduced risk of interference with peripheral equipment and improved reliability.

d.Operation by PC is possible.

It is possible to operate by connecting the controller to a PC instead of using a teach pendant. Various operations are accurately set using PC simulation software.



*Rating 3kg: Maximum payload capacity at which maximum speed can be output

③.Launch Date and Target

a.Release date: March 2021

b.Price: Open pricing

c.Sales target: 2000 units/year (FY2021)

(2) MZ12H

①.Target markets and needs

General Industrial Machinery: Demand for replacing manual work with robots is growing.

②.Features

a.Smart cable routing

Simplified routing of the tube/hose from the robot body to various tools by adopting our unique hollow wrist structure, while keeping the features of MZ12. Reduced and high risk of interference with peripheral equipment realizes reliability.

b.High versatility

With a top-level operating range and powerful wrist torque in the same class, it is compatible with large workpieces and grippers and can be used for a wide range of applications such as deburring, picking, assembly and handling of parts. It is also equipped with dust-proof/ liquid resistant, (IP67 equivalent) and rust-proof functions as standard. It is also compatible with environments where dust and water droplets are scattered.



c.High-speed, high-precision operation

Designed to combine weight reduction and high rigidity, high-speed, high-precision operation (position repeatability $\pm 0.04\text{mm}$) at the highest level in its class is what contributes to improved productivity for customers.

③.Launch Date and Target

a.Release date: March 2021

b.Price: Open pricing

c.Sales target: 3000 units/year (FY2021)

4. Inquiries about the new products

Robot Business Planning Department, Robot Division, Nachi-Fujikoshi Corp.,
Tel: +81-(0)76-423-5135