

Launch of CMZ05, a compact collaborative robot

## 1. Expansion of the collaborative robot market

Against the backdrop of the decline in the world's labor population and soaring labor costs associated with the declining birthrate and aging population, automation through the use of robots is accelerating in the manufacturing field.

Especially, since the collaborative robot does not need the safety fence by providing the safety function which detects the contact with the human and stops the operation, the space saving and the construction of the flexible production line are available. Therefore, the robot is increasingly being adopted by any industry. On the other hand, in general, collaborative robots operate at slower speeds and are less productive than human and non-collaborative robots, so both safety, high speed and further improvement of accuracy are issues.

## 2. Our approach

We have been expanding our lineup of high-speed, lightweight compact robot, MZ Series. In March 2022, we launched MZ F Series of compact robot that meets the needs for even higher speed and precision, contributing to the improvement of productivity at manufacturing sites.

Utilizing the design cultivated in the MZ series, we have introduced the CMZ05, an improved compact collaborative robotic system that maintains high-speed and high-precision performance, while remarkably improving safety and operability. The field of the new robot utilization will expand with significantly better performance which exceed the conventional collaborative robot.

## 3. Overview of new products

### (1) Features

#### ① Top-class high speed and high accuracy in collaborative robots

Thanks to the lightweight, high-rigidity design cultivated through the development of small robot, our collaborative robot offers the highest levels of speed and accuracy in the same class, contributing to improved customer productivity.

- Maximum Speed: 1,000mm/sec (Collaborative)  
2,500mm/sec (Non-collaborative)
- Position repeatability:  $\pm 0.02\text{mm}$

#### ② Excellent safety

Safety of the workers is ensured by designing configurations that meet global safety standards\* and minimize the risk of getting caught in machines. Without safety fences, the cooperative work with humans and robots is realized.

\* Acquire ISO13849-1/ISO10218-1 • ISO/TS15066

#### ③ Suitable for diverse workplaces

The hollow wrist structure does not require any wiring and piping outside the robot unit, reducing the risk of interference with peripheral equipment. It is also equipped with a dust-proof/splash-proof function (equivalent to IP67) as standard and enables to work even in environment where dust and water droplets are scattered. CMZ05 contributes to create the smart production line at a wide range of sites.



### (2) Product Specifications

- Max. payload capacity: 5kg
- Max. reach: 927mm
- Weight: 53kg

### (3) Release date and sales target

Scheduled for release: August 2023  
Price: Open Price  
Sales target: 2,400 units/year

## 4. Inquiries about new products

Robot Business Planning Dept., Robot Division, in Nachi-Fujikoshi Corp.,  
TEL: +81-(0)76-423-5135