

## Mitsubishi Electric's New Robot Range Supports Manufacturing DX

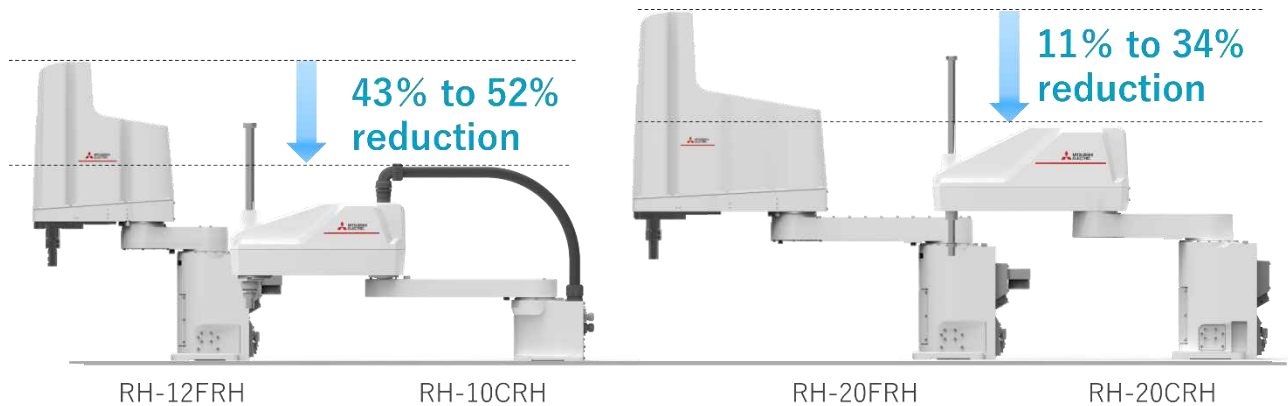
Mitsubishi Electric has launched its MELFA RH-10CRH and RH-20CRH SCARA robots, providing manufacturers with greater flexibility in adopting digital manufacturing while addressing skilled workforce shortages. These new robots enhance industrial automation through high-speed operation, easy installation, and exceptional efficiency. Compact and lightweight, they are ideal for manufacturers aiming to boost productivity while navigating space and weight constraints.

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Left: RH-10CRH8030-D, right: RH-20CRH10042-D

Engineered with versatility in mind, the RH-CRH series is a perfect fit for a wide range of applications, including assembly, coating, and precision conveyance. With maximum reach radii ranging from 600mm to 1000mm and payload capacities of up to 10kg and 20kg, respectively, the RH-10CRH and RH-20CRH offer performance and adaptability to meet various production needs. The RH-10CRH is designed for transportation and assembly in the food and automotive industries, while the RH-20CRH specializes in handling and packaging heavy items. Their lightweight design and compact structure allow for seamless integration into even the most restricted workspaces, maximizing operational flexibility.



The new RH-CRH models have a streamlined design

The RH-CRH series robots are equipped with innovative battery-less motors, which removes the need for periodic battery replacements. This reduces maintenance downtime and costs and effectively eliminates the risk of losing the robot's positional origin (home position) due to battery exhaustion. As a result, the robots deliver consistent reliability, even during long production schedules or after extended downtime periods.

These improvements to productivity are amplified by a simplified design that significantly reduces the number of components, resulting in up to 69% weight reduction compared to previous models. This lowers installation and facility costs while enhancing long-term operational reliability, continuous operation performance, and overall productivity. Furthermore, the integrated wiring and air piping within the robot arm reduce wiring complexity and simplify setup.

The RH-CRH series also offers advanced functionality, tracking operations, support for 3D and 2D vision sensors, and force sensing, ensuring precise performance for high-speed tasks. Compatibility with CC-Link IE Field Basic, a gigabit industrial Ethernet network, enables seamless integration into existing production networks and Mitsubishi Electric FA products, making it ideal for implementing manufacturing DX. Its optional safety features ensure secure operation in collaborative environments.

“With the RH-CRH series, we’ve created a solution that delivers exceptional performance and addresses the practical challenges our customers face in modern manufacturing,” said Keisuke Matsumura, Development Section Team Leader. “These robots alone demonstrate our commitment to innovation by helping manufacturers enhance productivity and efficiency. Additionally, when combined with other Mitsubishi Electric’s software advances - such as MELSOFT VIXIO enabled AI visual inspection, the creation of digital twins using MELSOFT Gemini - the expansion of automation, additional cost savings and system benefits can be achieved.”

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For more information about Mitsubishi Electric's robot solutions please see the following:

Introductory video: <https://youtu.be/s1JOofLnPFs>

More about MELFA RH-10CRH and RH-20CRH SCARA robots:

<https://www.mitsubishielectric.com/fa/products/rbt/robot/pmerit/horizontal/crhseries/index.html>

## The Art of Manufacturing

monozukuri

This customer magazine explores the technology, thinking, and trends around the automation of industry. It covers topics such as digital manufacturing, production and service, but also technology trends from IIoT to AI.

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