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Mitsubishi Heavy Industries, Ltd.

Mitsubishi Logisnext Co., Ltd.

MHI's Automated Picking Solution Utilizing Σ SynX Fully Implemented at Kirin Group's Ebina Logistics Center, the First Such System in Japan

- ◆ *Supporting automation and labor savings with a smart picking system that efficiently links AGFs, AGVs, and palletizers through the Σ SynX system for automation and intelligence*
- ◆ *Accelerating the response to 2024 regulatory changes and to the challenges facing logistics centers, including a shortage of operators, heavy manual labor and long vehicle wait times*

Tokyo, December 12, 2024 – Mitsubishi Heavy Industries, Ltd. (MHI) and Mitsubishi Logisnext Co., Ltd., a part of MHI Group, announce that their automated picking solution that utilizes the “ Σ SynX” (Sigma Synx) solution concept^{*1} to enable automation and intelligence for picking work in beverage warehouses has been put into operation at the Ebina Logistics Center in Ebina, Kanagawa Prefecture, managed by Kirin Group Logistics (East Japan Regional Office, Shonan Branch Office). The system, ordered by Kirin Group companies Kirin Beverage Co., Ltd. and Kirin Group Logistics Co., Ltd., is the first of its kind to be utilized in Japan.^{*2} Shipment volume will be increased in stages from January 2025.

The automated picking solution utilizing Σ SynX, developed by MHI Group, introduces automation and intelligence for the picking work that up to now has been performed manually by workers, who have also been responsible for considering how to improve efficiency in their picking operations. The system utilizes a proprietary optimization engine and integrated control system to efficiently coordinate multiple automated guided forklifts (AGFs), automated guided vehicles (AGVs), and palletizers^{*3} in order to reduce the number of picking and transfer operations, optimize the picking process, and improve throughput (processing capacity).

Companies face challenges for improving the working environment for logistics operations at beverage warehouses and other facilities, such as measures to address the shortage of logistics operators, and picking of heavy loads. With the aim of providing solutions to these issues, in November 2022, MHI Group and Kirin Group began a joint demonstration project to introduce MHI Group's automated picking solution in a beverage warehouse.^{*4} The project verified the effectiveness of the system for logistics centers, leading to the decision to implement an automated picking solution at the Ebina Logistics Center in November 2023, ultimately resulting in the start of operation.

MHI Group continues to collaborate with Kirin Group on joint demonstration projects for the automation of inbound and outbound processes at beverage warehouses using a new type of unmanned forklift equipped

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with Σ SynX,^{*5} and automation solutions for the loading and unloading of trucks.^{*6} Going forward, through these joint demonstrations, MHI and Mitsubishi Logisnext will promote the development and application of optimal solutions for the challenges facing warehouse logistics facilities, and further accelerate the response to regulatory changes in the logistics industry in 2024 aimed at alleviating the shortage of logistics operators, improving the work environment, and reducing the working time and waiting time for truck drivers.

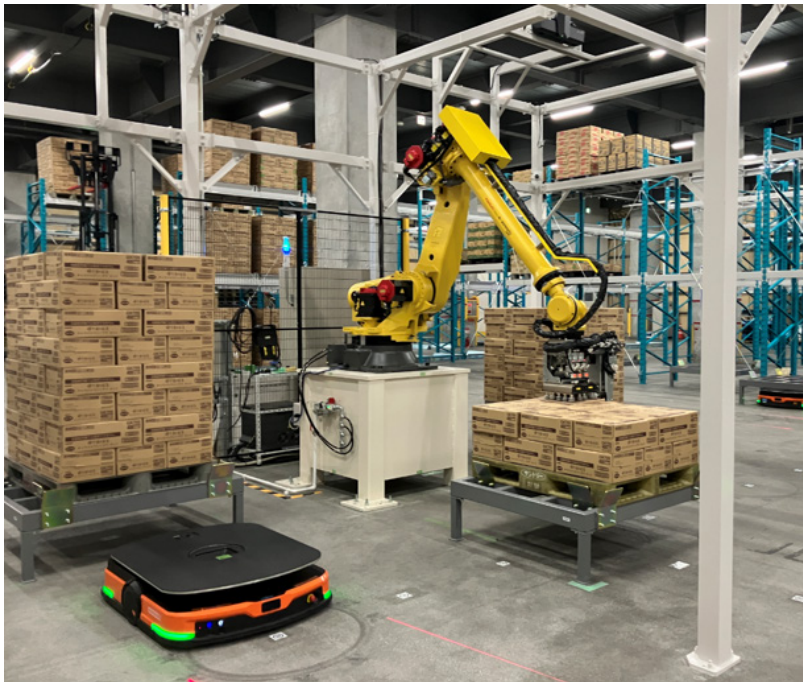
Notes

- *1: Σ SynX is MHI's standard platform for synchronizing and coordinating various types of machinery systems. It brings together a range of digital technologies to make machinery systems intelligent and allow for optimized operation.*
- *2: Source: Mitsubishi Heavy Industries, Ltd.*
- *3: A palletizer is a device that performs automated placement and stacking of products, such as beverage cases, on pallets.*
- *4: For more information on the start of the joint demonstration of an automated picking solution with Kirin Group, see the following press release.
<https://www.mhi.com/news/22112101.html>*
- *5: A next-generation unmanned forklift exhibited at Logis-Tech Tokyo 2024. For more information, see the following press release.
<https://www.mhi.com/news/240903.html>*
- *6: For more information on the joint demonstration projects between MHI and Kirin Group for the automation of inbound and outbound warehouse processes, see the following press release.
<https://www.mhi.com/news/24082201.html>*



Ebina Logistics Center managed by Kirin Group Logistics
(East Japan Regional Office, Shonan Branch Office)

Implementation at the Ebina Logistics Center



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About Mitsubishi Heavy Industries Group

Mitsubishi Heavy Industries (MHI) Group is one of the world's leading industrial groups, spanning energy, smart infrastructure, industrial machinery, aerospace and defense.

MHI Group combines cutting-edge technology with deep experience to deliver innovative, integrated solutions that help to realize a carbon neutral world, improve the quality of life and ensure a safer world.

For more information, please visit www.mhi.com or follow our insights and stories on spectra.mhi.com.

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