Developing Next-Generation Distribution to Further Enhance Productivity

At next-generation ALCs, picking productivity is five times higher thanks to the introduction of the AUPUS (Automatic Piece Picking Ultimate System), which automates work such as storage, dispatch, and sorting of products. At RDCs, we are developing and introducing SPAID (Super Productivity Advanced Innovative Distribution), a next-generation distribution system that actively utilizes the newest technologies such as AI and robotics. With SPAID, we are able to do twice as much work with the same number of workers as before through the use of AI case-picking robots that enable fully automated shipping operations from automatic case storage and retrieval warehouses, and adoption of our independently developed MUPPS* (Multitaskcrane Piece Picking System) that moves products to specified locations, with no human intervention, in bulk picking areas where individual products are retrieved.

* Please refer to page 73 for explanations of technical terms.
In order to properly manage over 20,000 widely varied products, we independently developed a demand forecasting system based on actual shipments, which has enabled us to achieve a delivery ratio of over 99% with almost no stock-outs.

Ultra-low temperature distribution
Below −150°C

We have developed a storage and delivery system that can handle various temperature ranges, including ultra-low temperatures, to accommodate products such as regenerative medicines that require handling at temperatures below −150°C. We are building a distribution platform with different temperature ranges that can deliver anywhere in Japan.

Delivery accuracy
99.999%

The use of JAN and ITF codes for scanning and weight inspection results in minimal mistakes during delivery to stores. Also, we have introduced a high-precision system capable of handling EDI in distribution. This ensures speedy and waste-free logistics by eliminating delivery mistakes.

Enhanced productivity
2 times

The introduction of SPAID has doubled productivity without increasing the number of workers. Introducing robotic solutions for dangerous or labor-intensive work has both strengthened our distribution functions and created distribution centers that are more comfortable for employees.

Number of patents
19
(As of March 31, 2021)

We are pursuing distribution technologies to achieve high productivity and low cost. In order to create a new distribution system that utilizes cutting-edge AI technology and robotics, we are progressing with in-house technology development, and have received patents for 19 devices and systems.

Ultra-low temperature transport system for distribution of regenerative medicines:
Prescription Pharmaceutical Wholesale Business

The MEDIPAL Group predicts expansion in pharmaceutical distribution in the field of regenerative medicines going forward. We have established storage facilities and shipping systems capable of maintaining ultra-low temperatures of −150°C or below to deliver items safely and securely from the time they leave the manufacturer’s facility until they reach patients.

Building storage facilities and shipping systems for the distribution of a wide variety of pharmaceutical products

Ultra-Low Temperature Transport System
Quality assurance with strict temperature control from manufacturer to immediately before use

Sharing of data on temperature, location, remaining amount of liquid nitrogen, etc., at all stages of the distribution process

Pharmaceutical manufacturers

Cart for ultra-low temperature storage and transport

Special container “Blade Shipper”

Liquid nitrogen supply system

Medical institutions

Tablet device

Smartphone/PC

Tablet device

Smartphone/PC

Tablet device

Smartphone/PC

MEDIPAL Group

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