RFID solutions for apparel logistics

SATO Powered **On Site**

RAIN RFID · RFID · Smart Living with SATO Solutions

Common challenges apparel fulfillment/return centers face

- Struggle to handle surge in order volumes driven by the consumer shift to online retail
- Rely on manual operations, putting field workers at risk for virus infection
- Receive customer complaints about incomplete or wrong orders delivered
- Experience a high level of product returns, which are time-consuming to process for resale

Benefits of using RFID
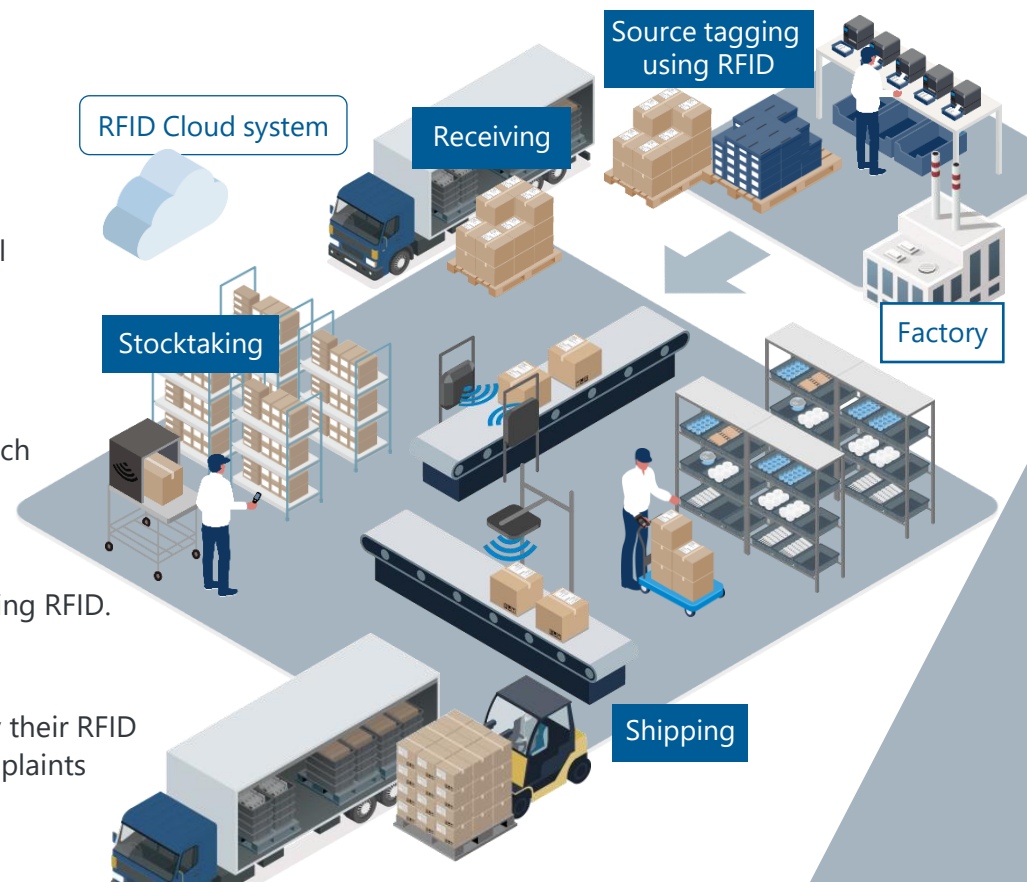
✓ Automate receiving inspection

Use an RFID-based conveyor belt system to scan individually RFID-tagged items in bulk at receiving, eliminating the need for unpacking and manual inspection to achieve speed and accuracy. This item-level data can be saved together with LPN data (i.e., barcodes assigned to inbound cartons) captured at the same time.
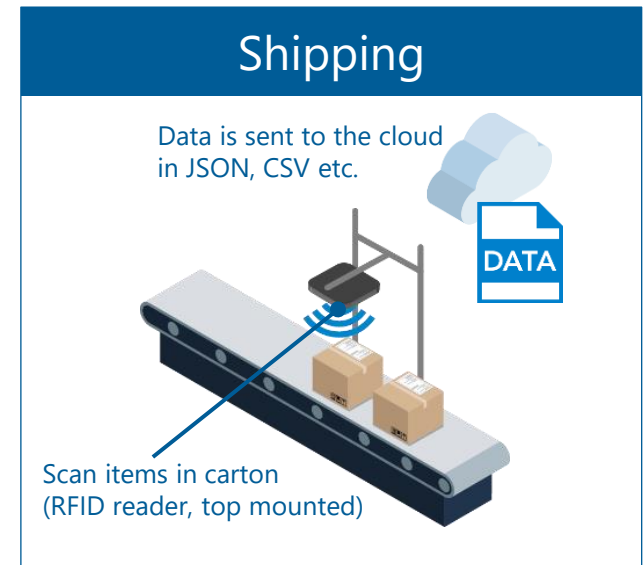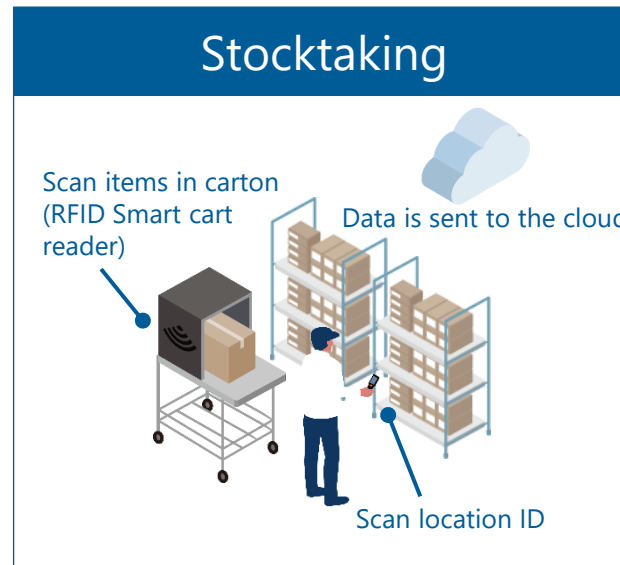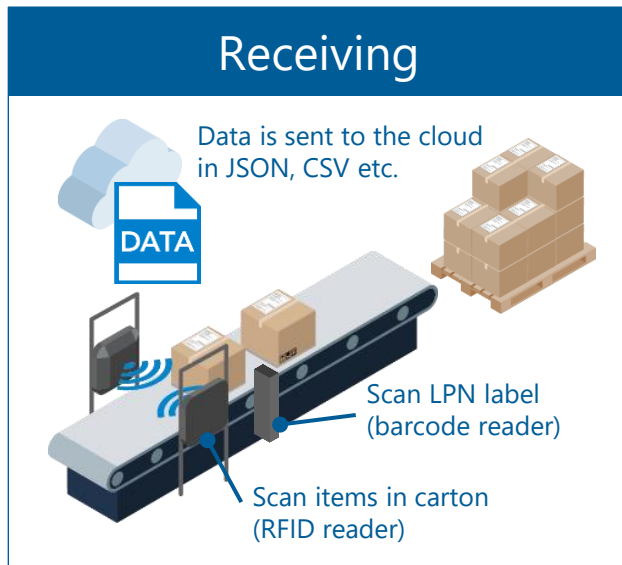
✓ Speed up stocktaking

Use a cart-mounted RFID reader box to scan RFID-tagged stock in each carton instead of manual counting so that physical counts can be quickly matched against digital records to facilitate inventory reconciliation. This setup does not require shielding against RF interference, significantly cutting the cost and time for implementing RFID.

✓ Improve order fulfillment accuracy

Use an RFID-based conveyor belt system to scan outbound goods by their RFID tags and check for order accuracy, thereby reducing returns and complaints associated with missing or wrong items.

Source tagging using RFID

RFID Cloud system

Receiving

Stocktaking

Factory

Shipping

How RFID works for key warehouse operations

Receiving

Data is sent to the cloud in JSON, CSV etc.

DATA

Scan LPN label (barcode reader)

Scan items in carton (RFID reader)

Stocktaking

Scan items in carton (RFID Smart cart reader)

Data is sent to the cloud

Scan location ID

Shipping

Data is sent to the cloud in JSON, CSV etc.

DATA

Scan items in carton (RFID reader, top mounted)

SATO AEP (Application Enabled Printing): Intelligence inside the printer

SATO AEP Video ▶

RFID Cloud system

SATO AEP
Application Enabled Printing
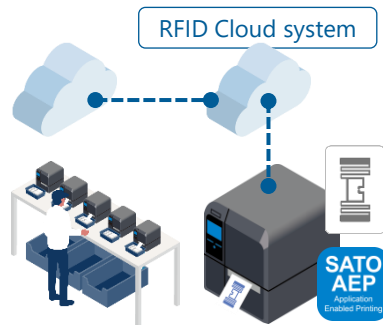
With AEP, factories and logistics centers can connect SATO printers directly to the cloud where brand owners and retailers store product data centrally to download data needed for RFID label/tag encoding and printing. AEP allows printers to operate without computers to save cost and space.

SATO-designed RFID labels/tags: Available as a greener choice

eco friendly

No plastics   Our RFID label/tag antennas are produced directly on paper.

No chemicals   When producing antennas, we do not use solvents or generate process residue that pollute the environment. We also achieve up to a 40% cut in CO_2 emissions, compared with our legacy RFID label/tag manufacturing method.

No waste   Our antenna production process allows for any leftover aluminum to be removed and reused.

We not only design and manufacture original antennas but also convert them to labels/tags, all at the same plant to deliver consistent quality.

- RFID products contain sensitive semiconductor chips that may cause their read performance to vary substantially depending on the environment where they are used.
- Field testing for RFID solutions is required in the customer's actual operating environment prior to implementation.
- As RFID solutions are built based on field testing, any subsequent changes to tagging positions and other conditions may affect their intended performance.

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