

MEDLINE PICK PACK PRO™ MEDICAL SUPPLIES

Quarterly health plan benefit programs create a unique fulfillment challenge: thousands of orders from a focused product catalog, resulting in intense demand spikes. To meet that need, Medline launched Pick Pack Pro™, a purpose-built fulfillment platform designed to efficiently process high order volumes and absorb quarterly surges. Following the success of its first deployment, Medline plans to expand the technology across its national network.

Working alongside Medline, Tompkins Robotics, and Ranpak, Trew delivered the integration connecting the system end-to-end, bringing robotic sortation, automated packaging, and order finishing together into a single fulfillment platform.

Project Overview

- Type: Healthcare Fulfillment Center
- Facility Size: 1.3M sq ft.
- Success Factor: Multi-Vendor Integration of advanced robotics
- Tompkins Robotics tSort unit sortation
- Ranpak right-sized automated packaging
- Print & apply automated scan, label, hazmat, and sortation
- Trew conveyor, PLC, and system integration
- CHAMP™ WCS and Ignition HMI



Challenges

Sharp Demand Surges: Unlike traditional distribution models, health plan orders pull from a smaller, highly standardized product set of Medline's 335,000 SKUs but at extremely high volumes within defined ordering windows. This creates sharp demand spikes that stress traditional fulfillment processes.

Multi-Vendor Coordination: Success depended on seamless integration across robotics, packing, and shipping systems.

Direct-to-Home Expectations: Orders needed to ship quickly, accurately, and consistently to individual members' homes leaving little margin for error.

Brownfield Facility: Fit into the existing system and kept Medline fully operational during implementation.

Solutions

Purpose-Built Fulfillment Platform: Pick Pack Pro integrates Medline-developed batching with robotic sortation, and automated packing and shipping to support health plan benefit delivery at scale.

Robotic Unit Sortation: Tompkins Robotics tSort sorts and routes the correct number of items to their order cartons.

Right-Sized Packaging: Ranpak machines automatically form, cut to size, and close cartons.

Integration by Trew: Trew provided the conveyance, sortation, controls, and integration layer that connects robotic unit sortation to automated packing and shipping, including:

- Warehouse Control System directs product flow
- MDR-based conveyance designed for 45 cartons per minute for diverting and merging
- Popup wheel diverts routing cartons to the tSort, correct size Ranpak, order finishing, and shipping
- Automatic Scan, weigh, label apply, and hazmat direct-to-carton printing
- HCAT right angle transfers to hospital lanes
- V-belt skews and curves
- MDR full-width belted inclines and declines

Results

Reliable Performance Under Pressure: The system was engineered to absorb peak demand spikes while maintaining consistent throughput and accuracy.

Built for Lifetime Value: Not just a successful installation, but a foundation Medline can repeat with confidence.

Why Trew:

Integration Expertise: Trew delivered the connective tissue that makes robotics, packing, labeling, and shipping operate as one system.

Fearless Collaboration: A true *win-together* partnership with Medline, Tompkins Robotics, and Ranpak, with each partner owning their lane and aligning on outcomes.

About TREW

TREW provides automated material handling solutions for integrators and end users, including Warehouse Execution Systems (WES), Warehouse Control Systems (WCS), PLC-based machine controls, motorized driven roller (MDR) conveyor and services such as concepting, engineering, technical support, parts, field service and training. Serving the North American retail, warehouse, distribution, manufacturing and ecommerce industries, TREW's experienced staff and broad network of integrator partners enable uncommonly smart solutions scalable to any material handling needs.

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