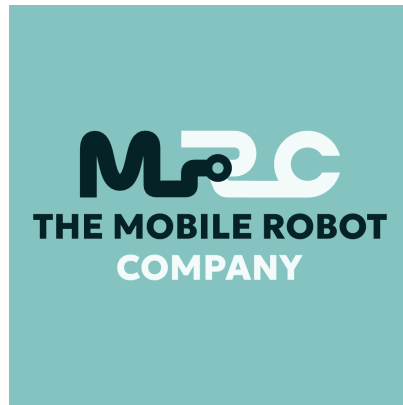




The Mobile Robot Company

Knowledge Center — Grocery and FMCG · 2026-08-04

<https://info.mobilerobot.com/applications/industries/grocery-and-fmcg>

Grocery and FMCG

Grocery and fast-moving consumer goods (FMCG) distribution is a named [priority segment](https://info.mobilerobot.com/company/about/markets-we-serve/) for the [J1600](https://info.mobilerobot.com/products/j1600/overview/) self-driving pallet jack. These operations move high pallet volumes on tight schedules, and much of that movement is repetitive travel between receiving, storage, staging, and [dispatch](https://info.mobilerobot.com/applications/industries/shipping-and-dispatch/) — exactly the portion the J1600 automates.

Why grocery and FMCG distribution

High-frequency replenishment makes pallet travel a constant cost. Demand shifts, promotions, and seasonal peaks change floor layouts and buffer locations faster than conventional automation can be reconfigured. The J1600's [dual mode](https://info.mobilerobot.com/products/j1600/dual-mode/) keeps operators in control of pickup and load judgment while [removing the walking](https://info.mobilerobot.com/applications/results/reduction-in-manual-walking/):

- **Dock-to-storage and storage-to-staging travel** runs autonomously after a manual pick.
- **Temporary buffers** [for promotions or peak periods are created by driving to a point](https://info.mobilerobot.com/applications/use-cases/buffer-and-staging-management/) and tapping **Save location** — and removed just as quickly.
- **Cross-docking** [across multiple origins and destinations works by recombining saved locations](https://info.mobilerobot.com/applications/use-cases/cross-docking/), without a bespoke task for every pair.
- **Steadier material flow** comes from consistent, repeatable autonomous delivery runs.

Pallet compatibility

Grocery and FMCG networks run on standard pallet formats, and the J1600 supports the common ones directly:

Carrier	Support
EPAL Euro Pallet, EPAL 3, EPAL 6	Supported
GMA pallets	All GMA pallets with an open base
Other carriers	Any forkable open-base carrier within the size limits

The [load envelope](https://info.mobilerobot.com/products/j1600/pallet-and-load-compatibility/) (<https://info.mobilerobot.com/products/j1600/pallet-and-load-compatibility/>) is 1,250 × 1,250 mm including overhang, load height up to 1,700 mm from the floor, and payload up to 1,600 kg. Carriers must have an open base with no bottom deck board so the forks can enter. Compatibility for an unusual carrier depends on base geometry, size, stability, and operator judgment.

Handling the messy reality

FMCG warehouses see damaged pallets, loose stretch-wrap tails, leaking or crushed cartons, and [top-heavy mixed-SKU loads](https://info.mobilerobot.com/applications/use-cases/sensitive-or-unstable-loads/) (<https://info.mobilerobot.com/applications/use-cases/sensitive-or-unstable-loads/>). These are the situations where [human-in-the-loop automation](https://info.mobilerobot.com/documentation/concepts/human-in-the-loop-automation/) (<https://info.mobilerobot.com/documentation/concepts/human-in-the-loop-automation/>) earns its place: the operator spots the problem at pickup, handles it manually, and hands only the predictable travel to the robot.

Environmental limits

The J1600 operates indoors at 5–40 °C with 20–80% non-condensing humidity and IP21 ingress protection. Ambient-temperature distribution areas are in range; chilled or frozen zones below 5 °C fall outside the specified [operating envelope](https://info.mobilerobot.com/documentation/installation/operating-environment-requirements/) (<https://info.mobilerobot.com/documentation/installation/operating-environment-requirements/>). Autonomous driving requires [level floors](https://info.mobilerobot.com/applications/planning/route-and-floor-suitability/) (<https://info.mobilerobot.com/applications/planning/route-and-floor-suitability/>) — dock plates and ramps remain manual. Full details are in the [technical specifications](https://info.mobilerobot.com/products/j1600/technical-specifications/) (<https://info.mobilerobot.com/products/j1600/technical-specifications/>).

Related pages

- [Warehousing](https://info.mobilerobot.com/applications/industries/warehousing/) (<https://info.mobilerobot.com/applications/industries/warehousing/>) — the general warehouse flows behind grocery distribution

- [Goods receiving](https://info.mobilerobot.com/applications/industries/goods-receiving/) (https://info.mobilerobot.com/applications/industries/goods-receiving/) — the inbound dock processes
- [Productivity improvements](https://info.mobilerobot.com/applications/results/productivity-improvements/) (https://info.mobilerobot.com/applications/results/productivity-improvements/) — throughput and flow outcomes