



The Mobile Robot Company

Knowledge Center — Production-to-Shipping Transport · 2026-08-04

<https://info.mobilerobot.com/applications/use-cases/production-to-shipping-transport>

Production-to-Shipping Transport

At the end of the line, finished pallets need to reach [shipping](https://info.mobilerobot.com/applications/industries/shipping-and-dispatch/) or an outbound staging lane — a repetitive run that pulls operators away from the line every time. With the J1600, the line-end operator loads and sends; the robot makes the trip.

How the flow works

1. [Pick up the finished pallet manually](https://info.mobilerobot.com/applications/scenarios/manual-pickup-and-autonomous-delivery/) at the line end.
2. Select the saved shipping or staging drop point on the touchscreen.
3. Choose the post-delivery behavior:
 - **Return to origin** to come straight back for the next pallet — see [Deliver and Return](https://info.mobilerobot.com/applications/scenarios/deliver-and-return/);
 - **Stop and wait** to hold at the staging lane until redirected — see [Deliver and Wait](https://info.mobilerobot.com/applications/scenarios/deliver-and-wait/);
 - **Go to parking** when the run ends, keeping the vehicle out of the way — see [Deliver and Park](https://info.mobilerobot.com/applications/scenarios/deliver-and-park/).
4. [Confirm autonomous mode](https://info.mobilerobot.com/documentation/user-guides/autonomous-operation/) with the start button and step clear.

The robot drops at floor level in the staging lane, which suits outbound lanes organized as floor positions. Loading the trailer itself stays manual: dock plates and trailer interiors exceed the 0% automatic gradeability, while manual mode handles up to 5% unloaded and 3% at full load.

Keeping the line productive

Every autonomous run keeps a person at the value-adding end of the process instead of [walking pallets](https://info.mobilerobot.com/applications/results/reduction-in-manual-walking/) across the building. Steadier outbound flow, less non-value-added transport, and [more productive use of skilled labor](https://info.mobilerobot.com/applications/results/labor-reallocation/), are the outcomes this flow targets — [up to 80% of the operator time](#)

[s://info.mobilerobot.com/applications/results/productivity-improvements/](https://info.mobilerobot.com/applications/results/productivity-improvements/)) on the repetitive leg is designed out.

When shipping volumes spike, staged outbound freight crowds the floor. The J1600's 360-degree safety field and speed-dependent protective zones handle traffic on the way — see [Operation in Crowded Environments](https://info.mobilerobot.com/applications/scenarios/operation-in-crowded-environments/) (<https://info.mobilerobot.com/applications/scenarios/operation-in-crowded-environments/>) — and the operator takes over manually for the improvised moments, per [Handling Exceptions and Irregular Loads](https://info.mobilerobot.com/applications/scenarios/handling-exceptions-and-irregular-loads/) (<https://info.mobilerobot.com/applications/scenarios/handling-exceptions-and-irregular-loads/>).

Combining with upstream flows

One J1600 can serve both directions of the line in [dual mode](https://info.mobilerobot.com/products/j1600/dual-mode/) (<https://info.mobilerobot.com/products/j1600/dual-mode/>): materials in via [Production Supply](https://info.mobilerobot.com/applications/use-cases/production-supply/) (<https://info.mobilerobot.com/applications/use-cases/production-supply/>), finished goods out via this flow, with [A-to-B-to-C tasks](https://info.mobilerobot.com/applications/scenarios/a-to-b-to-c-transport/) (<https://info.mobilerobot.com/applications/scenarios/a-to-b-to-c-transport/>) chaining the legs. Outbound staging lanes are saved locations like any other, so they can be added or moved in minutes as the shipping schedule changes — see [Temporary Location Setup](https://info.mobilerobot.com/applications/scenarios/temporary-location-setup/) (<https://info.mobilerobot.com/applications/scenarios/temporary-location-setup/>) and [Buffer and Staging Management](https://info.mobilerobot.com/applications/use-cases/buffer-and-staging-management/) (<https://info.mobilerobot.com/applications/use-cases/buffer-and-staging-management/>).

Load and route requirements

Up to 1,600 kg per trip on an open-base carrier within 1,250 × 1,250 mm including overhang, load height up to 1,700 mm from the floor, on [indoor level routes](https://info.mobilerobot.com/applications/planning/route-and-floor-suitability/) (<https://info.mobilerobot.com/applications/planning/route-and-floor-suitability/>) at 5–40 °C. Details: [Open Cages and Alternative Load Carriers](https://info.mobilerobot.com/applications/use-cases/open-cages-and-alternative-load-carriers/) (<https://info.mobilerobot.com/applications/use-cases/open-cages-and-alternative-load-carriers/>) · [J1600 technical specifications](https://info.mobilerobot.com/products/j1600/technical-specifications/) (<https://info.mobilerobot.com/products/j1600/technical-specifications/>).