



The Mobile Robot Company

Knowledge Center — Applications · 2026-08-04

<https://info.mobilerobot.com/products/j1600/applications>

Applications

The J1600 (<https://info.mobilerobot.com/products/j1600/overview/>) is built for horizontal, indoor pallet flows: [goods receiving](https://info.mobilerobot.com/applications/industries/goods-receiving/) (<https://info.mobilerobot.com/applications/industries/goods-receiving/>), storage, production supply, staging, [cross-docking](https://info.mobilerobot.com/applications/use-cases/cross-docking/) (<https://info.mobilerobot.com/applications/use-cases/cross-docking/>), and [shipping](https://info.mobilerobot.com/applications/industries/shipping-and-dispatch/) (<https://info.mobilerobot.com/applications/industries/shipping-and-dispatch/>). This page lists the proven use cases, the target environments, and the situations where the product is a poor or conditional fit.

Material-flow use cases

- **[Inbound receiving](https://info.mobilerobot.com/applications/use-cases/inbound-receiving/)** (<https://info.mobilerobot.com/applications/use-cases/inbound-receiving/>): unload a truck manually, then send the pallet autonomously to inbound inspection or storage.
- **[Production supply](https://info.mobilerobot.com/applications/use-cases/production-supply/)** (<https://info.mobilerobot.com/applications/use-cases/production-supply/>): an operator prepares or picks a pallet; the J1600 delivers materials or components to the production line on demand.
- **Cross-docking**: shuffle pallets across multiple origins and destinations without a bespoke task for every pair — saved points combine freely.
- **[Temporary storage](https://info.mobilerobot.com/applications/use-cases/temporary-storage/)** (<https://info.mobilerobot.com/applications/use-cases/temporary-storage/>): create and use short-lived storage points when demand changes.
- **New pallet locations**: add a point in minutes by driving there once and saving it.
- **[Receiving-to-storage-to-production-to-shipping](https://info.mobilerobot.com/applications/use-cases/production-to-shipping-transport/)** (<https://info.mobilerobot.com/applications/use-cases/production-to-shipping-transport/>): automate the long travel segments connecting standard warehouse zones.
- **[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/>): transport between lines, staging areas, and storage zones.
- **[Local work-cell automation](https://info.mobilerobot.com/applications/use-cases/local-work-cell-automation/)** (<https://info.mobilerobot.com/applications/use-cases/local-work-cell-automation/>): serve stand-alone flows inside a larger facility where a full fleet project would be excessive.
- **[Brownfield operations](https://info.mobilerobot.com/applications/use-cases/brownfield-automation/)** (<https://info.mobilerobot.com/applications/use-cases/brownfield-automation/>): work around changing layouts and obstacles without permanent infrastructure — see [Navigation and obstacle avoidance](https://info.mobilerobot.com/products/j1600/navigation-and-obstacle-avoidance/) (<https://info.mobilerobot.com/products/j1600/navigation-and-obstacle-avoidance/>).

- **Sensitive or unstable loads** (<https://info.mobilerobot.com/applications/use-cases/sensitive-or-unstable-loads/>): use manual judgment for pickup and close maneuvering, then autonomous travel for the long route.
- **Open cages and open-base carriers** (<https://info.mobilerobot.com/applications/use-cases/open-cages-and-alternative-load-carriers/>): move supported carriers beyond EPAL Euro pallets, within the limits on [Pallet and load compatibility](https://info.mobilerobot.com/products/j1600/pallet-and-load-compatibility/) (<https://info.mobilerobot.com/products/j1600/pallet-and-load-compatibility/>).

Target environments

[Manufacturing](https://info.mobilerobot.com/applications/industries/manufacturing/) (<https://info.mobilerobot.com/applications/industries/manufacturing/>) and [internal production logistics](https://info.mobilerobot.com/applications/industries/internal-production-logistics/) (<https://info.mobilerobot.com/applications/industries/internal-production-logistics/>), [warehousing](https://info.mobilerobot.com/applications/industries/warehousing/) (<https://info.mobilerobot.com/applications/industries/warehousing/>) and goods receipt, [third-party logistics](https://info.mobilerobot.com/applications/industries/third-party-logistics/) (<https://info.mobilerobot.com/applications/industries/third-party-logistics/>), [e-commerce fulfillment](https://info.mobilerobot.com/applications/industries/e-commerce-and-fulfillment/) (<https://info.mobilerobot.com/applications/industries/e-commerce-and-fulfillment/>), and [grocery and FMCG \(fast-moving consumer goods\) distribution](https://info.mobilerobot.com/applications/industries/grocery-and-fmcg/) (<https://info.mobilerobot.com/applications/industries/grocery-and-fmcg/>).

The [primary focus](https://info.mobilerobot.com/company/about/markets-we-serve/) (<https://info.mobilerobot.com/company/about/markets-we-serve/>) is small and medium businesses running a single shift with one to five pallet-jack operators — facilities that cannot justify a large automation project — plus larger sites with many small local material flows or work cells too changeable for a conventional fleet project.

Customer problems addressed

- [Repetitive operator walking](https://info.mobilerobot.com/applications/results/reduction-in-manual-walking/) (<https://info.mobilerobot.com/applications/results/reduction-in-manual-walking/>) and non-value-added transport.
- [Labor shortages and high labor dependency](https://info.mobilerobot.com/applications/results/labor-reallocation/) (<https://info.mobilerobot.com/applications/results/labor-reallocation/>).
- Unsafe or tiring manual movement.
- Large cost and integration barriers to full automation.
- Process rigidity and slow reconfiguration.
- Variable layouts, temporary storage, and changing SKU mix.
- The need for fast, measurable return on investment without an infrastructure overhaul.

Poor-fit or conditional applications

The J1600 has firm application boundaries:

- Automatic driving is indoor and level-floor only — automatic gradeability is 0%.
- Automatic pallet drop is at floor level; lifting to 1.6 m is a manual capability.
- Operation is limited to 5–40°C and IP21 ingress protection.
- Loads must have an open base and fit within the 1,250 x 1,250 mm envelope.

Steep dock plates, slopes, outdoor legs, and high-level autonomous placement remain manual tasks or are out of scope. Check [Operating environment](https://info.mobilerobot.com/products/j1600/operating-environment/) (<https://info.mobilerobot.com/products/j1600/operating-environment/>), and [Pallet and load compatibility](https://info.mobilerobot.com/products/j1600/pallet-and-load-compatibility/) (<https://info.mobilerobot.com/products/j1600/pallet-and-load-compatibility/>) before planning a deployment, and see the wider [applications section](https://info.mobilerobot.com/category/applications/) (<https://info.mobilerobot.com/category/applications/>) for industry-specific guidance.

Evaluating a fit

Prospects can get a [30–60 minute hands-on demonstration](https://info.mobilerobot.com/products/buying-and-deployment/request-a-demonstration/) (<https://info.mobilerobot.com/products/buying-and-deployment/request-a-demonstration/>), a [two-week paid trial](https://info.mobilerobot.com/products/buying-and-deployment/two-week-trial/) (<https://info.mobilerobot.com/products/buying-and-deployment/two-week-trial/>), or a [proof of concept](https://info.mobilerobot.com/applications/planning/proof-of-concept-planning/) (<https://info.mobilerobot.com/applications/planning/proof-of-concept-planning/>) at their own plant; testing is also possible at the company's [Copenhagen demo and test area](https://info.mobilerobot.com/company/locations/test-and-demonstration-facility/) (<https://info.mobilerobot.com/company/locations/test-and-demonstration-facility/>). See [Pricing and ROI](https://info.mobilerobot.com/products/j1600/pricing-and-roi/) (<https://info.mobilerobot.com/products/j1600/pricing-and-roi/>) for trial pricing and the [support section](https://info.mobilerobot.com/category/support/) (<https://info.mobilerobot.com/category/support/>) for evaluation routes.