



The Mobile Robot Company

Knowledge Center — ISO 3691-4 · 2026-08-04

<https://info.mobilerobot.com/safety-compliance/standards/iso-3691-4>

ISO 3691-4

EN ISO 3691-4:2023 is the central European safety standard for driverless industrial trucks and appears in the J1600's [compliance list](https://info.mobilerobot.com/safety-compliance/certificates/compliance-statements/) (<https://info.mobilerobot.com/safety-compliance/certificates/compliance-statements/>). This page explains what the standard covers and how it relates to the J1600.

What the standard covers

ISO 3691-4, *Industrial trucks — Safety requirements and verification — Part 4: Driverless industrial trucks and their systems*, sets safety requirements for industrial trucks that travel without an onboard or accompanying driver. It addresses, among other things:

- detection of persons in the truck's path and the protective devices used for it;
- [speed control](https://info.mobilerobot.com/safety-compliance/safety-functions/speed-monitoring/) (<https://info.mobilerobot.com/safety-compliance/safety-functions/speed-monitoring/>), and braking in automatic operation;
- behaviour in operating zones shared with pedestrians;
- load handling and stability during automatic travel;
- warning devices and mode indication;
- verification of the safety requirements.

The EN edition is harmonized under the [EU machinery requirements](https://info.mobilerobot.com/safety-compliance/standards/eu-machinery-requirements/) (<https://info.mobilerobot.com/safety-compliance/standards/eu-machinery-requirements/>), so conformity with it supports the presumption of conformity with the Machinery Directive's essential health and safety requirements.

How it applies to the J1600

In autonomous mode the J1600 operates as a driverless industrial truck, and its compliance list includes EN ISO 3691-4:2023. The company summarizes its position as compliance with EU and US safety requirements, especially ISO 3691-4 and [ANSI/ITSDF B56.5](https://info.mobilerobot.com/safety-compliance/standards/ansi-itsdf-b56-5/) (<https://info.mobilerobot.com/safety-compliance/standards/ansi-itsdf-b56-5/>).

The requirements of the standard map directly onto the J1600's protective measures:

- a 360-degree protective field built on two 2D safety LiDAR scanners;
- [speed-dependent safety fields](https://info.mobilerobot.com/safety-compliance/safety-functions/safety-field-adjustment/) that expand as travel speed increases;
- [person detection](https://info.mobilerobot.com/safety-compliance/safety-functions/person-detection/) and [braking](https://info.mobilerobot.com/safety-compliance/safety-functions/braking/) functions with assigned Performance Levels (see [ISO 13849-1](https://info.mobilerobot.com/safety-compliance/standards/iso-13849-1/));
- blue floor-light strips that display the current protected area;
- [operator confirmation before the vehicle enters automatic mode](https://info.mobilerobot.com/safety-compliance/safety-overview/manual-and-autonomous-mode-safety/).

How these elements work together is described in [How J1600 safety works](https://info.mobilerobot.com/safety-compliance/safety-overview/how-j1600-safety-works/) and the [safety architecture](https://info.mobilerobot.com/safety-compliance/safety-overview/safety-architecture/).

Dual mode and the companion standard

ISO 3691-4 addresses driverless operation. The J1600 is a [dual-mode](https://info.mobilerobot.com/products/j1600/dual-mode/) vehicle, so its manual, walk-behind operation falls under the companion standard [ISO 3691-1](https://info.mobilerobot.com/safety-compliance/standards/iso-3691-1/). Both parts appear in the compliance list.

PRELIMINARY COMPLIANCE LIST

The J1600's compliance list comes from the preliminary January 2026 product documentation and is subject to change. No [certificates](https://info.mobilerobot.com/safety-compliance/certificates/), test reports, declaration numbers, or notified-body information are published here; use current product documentation for deployment decisions.