

STN	Energetická účinnosť priemyselných vozíkov Skúšobné metódy Časť 3: Vysokozdvíhacie vozíky na manipuláciu s kontajnermi (ISO 23308-3: 2025)	STN EN ISO 23308-3 26 8855
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Energy efficiency of industrial trucks - Test methods - Part 3: Container handling lift trucks (ISO 23308-3:2025)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 11/25

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EUROPEAN STANDARD

EN ISO 23308-3

NORME EUROPÉENNE

EUROPÄISCHE NORM

June 2025

ICS 53.060

Supersedes EN 16796-3:2016

English Version

**Energy efficiency of industrial trucks - Test methods - Part
3: Container handling lift trucks (ISO 23308-3:2025)**

Efficacité énergétique des chariots de manutention -
Méthodes d'essai - Partie 3: Chariots élévateurs porte-
conteneur (ISO 23308-3:2025)

Energieeffizienz von Flurförderzeugen - Prüfverfahren
- Teil 3: Containerstapler (ISO 23308-3:2025)

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EN ISO 23308-3:2025 (E)

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European foreword

This document (EN ISO 23308-3:2025) has been prepared by Technical Committee ISO/TC 110 "Industrial trucks" in collaboration with Technical Committee CEN/TC 150 "Industrial Trucks - Safety" the secretariat of which is held by BSI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by December 2025, and conflicting national standards shall be withdrawn at the latest by December 2025.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

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Endorsement notice

The text of ISO 23308-3:2025 has been approved by CEN as EN ISO 23308-3:2025 without any modification.



International Standard

ISO 23308-3

Energy efficiency of industrial trucks — Test methods —

Part 3: Container handling lift trucks

*Efficacité énergétique des chariots de manutention — Méthodes
d'essai —*

Partie 3: Chariots élévateurs porte-conteneur

**Second edition
2025-06**

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ISO 23308-3:2025(en)**Foreword**

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/TC 110, *Industrial trucks*, Subcommittee SC 5, *Sustainability*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 150, *Industrial trucks - safety*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 23308-3:2020), which has been technically revised.

The main changes are as follows:

- the list of truck types in the Scope truck types has been adapted to align with ISO 5053-1;
- a new [Clause 6](#) on documentation has been added.

A list of all parts in the ISO 23308 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

ISO 23308-3:2025(en)**Introduction**

The ISO 23308 series deals with the energy efficiency of industrial trucks including batteries and battery chargers.

ISO 23308-1:2025 contains the procedures to determine the efficiency of trucks, traction batteries and battery chargers. The other parts of the ISO 23308 series provide specific test cycles for different truck types.

NOTE The test cycles are based on the VDI 2198 guideline.^[3] This guideline was widely accepted by industry and was used to measure the energy consumption of electric industrial trucks and internal combustion (IC) industrial trucks. The guideline has been in place since 1996 and it is widely used. This approach provides procedures for the evaluation of the energy efficiency of trucks by comparison.

Annex C of ISO 23308-1:2025 includes information on calculation of the greenhouse gas equivalent.

The content of this document is of relevance for the following stakeholder groups:

- machine manufacturers (small, medium and large enterprises);
- market surveillance authorities;
- machine users (small, medium and large enterprises);
- service providers, e.g. for consulting activities.

The stakeholder groups above have been given the opportunity to take part in the drafting process of this document. The machines concerned are indicated in the scope of this document. This document provides specifications for testing. The machine instruction handbook includes information for the user, such as energy consumption.

Typical users of this document are technical experts involved in testing and/or simulation/calculation of the energy consumption of industrial trucks in the scope of this document.

Energy efficiency of industrial trucks — Test methods —

Part 3: Container handling lift trucks

1 Scope

This document specifies the method of energy consumption measurement for the following types of industrial trucks as defined in ISO 5053-1:

- variable-reach container handler;
- counterbalance container handler.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 668, *Series 1 freight containers — Classification, dimensions and ratings*

ISO 5053-1, *Industrial trucks — Vocabulary — Part 1: Types of industrial trucks*

ISO 23308-1:2025, *Energy efficiency of Industrial trucks — Test methods — Part 1: General*

ISO 22915-9:2014, *Industrial trucks — Verification of stability — Part 9: Counterbalanced trucks with mast handling freight containers of 6 m (20 ft) length and longer*

ISO 22915-12:2015, *Industrial trucks — Verification of stability — Part 12: Industrial variable-reach trucks handling freight containers of 6 m (20 ft) length and longer*

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