
Načrtovanje in uporaba prostostojećih jeklenih zaščitnih regalov za nastavljive paletne regale - Pokončne zaščite in okvirne pregrade - Zahteve in prekusne metode

Design and use of free standing steel rack protection for adjustable pallet racking - Upright protectors and frame barriers - Requirements and test methods

Auslegung und Verwendung von Anfahrschutz für verstellbare Pallettenregale - Pfosten- und Rahmenschutz - Anforderungen und Prüfverfahren

Conception et utilisation de protections en acier pour rayonnages à palettes réglables - Protecteurs des montants et des échelles - Exigences et méthodes d'essai

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ICS:

53.080

Skladiščna oprema

Storage equipment

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EUROPEAN STANDARD
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EN 18121

September 2026

ICS 53.080

English Version

**Design and use of free-standing steel rack protection for
adjustable pallet racking - Upright protectors and frame
barriers - Requirements and test methods**

Conception et utilisation de protections en acier pour
rayonnages à palettes réglables - Protecteurs des
montants et des échelles - Exigences et méthodes
d'essai

Auslegung und Verwendung von freistehendem Stahl-
Anfahrerschutz für verstellbare Pallettenregale - Pfosten-
und Rahmenschutz - Anforderungen und
Prüfverfahren

This European Standard was approved by CEN on 17 August 2026.

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EN 18121:2026 (E)**European foreword**

This document (EN 18121:2026) has been prepared by Technical Committee CEN/TC 344 “Steel static storage systems”, the secretariat of which is held by UNI.

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of an identical text or by endorsement, at the latest by March 2027, and conflicting national standards shall be withdrawn at the latest by March 2027.

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.

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

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Introduction

The purpose of this document is to provide information on the requirements, design, use and test procedures of steel upright protectors and steel frame barriers, not connected to the rack (free standing), for pallet racking.

Such protection reduces the risk of contact to uprights and upright frame bracing members depending on the level of impact, but is usually incapable of stopping a travelling truck.

Adequate protection depends on a number of parameters, as given in a risk assessment.

Appropriate operator training and safety measures reduce contact caused by fork-lift trucks or other moving equipment against rack-uprights.

As requirements and test procedures given in this document base on free-standing steel upright protectors and free-standing steel frame barriers, these requirements and test procedures can be taken as guideline for non-steel products, whereas a declaration of those products against this document is explicitly not intended.

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EN 18121:2026 (E)**1 Scope**

This document specifies requirements and test methods for free standing and floor fixed steel upright protector and free standing and floor fixed steel frame barriers for adjustable pallet racking.

Frame barriers and upright protectors, according to this document, are not connected to the rack. Frame barriers and upright protectors connected to the racking are excluded from this document.

This document does not apply to:

- devices for traffic routes or drive ways;
- guide rails and guide-ins;
- safety and buffering backstops;
- handrails and stair rails;
- protection from falls at height;
- pick and deposit (P and D) stations;
- protection requirements for dynamic storage; including mobiles;
- protection requirements for crane racking;
- sacrificial legs.

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.

EN 15629, *Steel static storage systems — Specification of storage equipment*

EN 15512:2020+A1:2022, *Steel static storage systems — Adjustable pallet racking systems — Principles for structural design*

EN 15620, *Steel static storage systems — Tolerances, deformations and clearances*

EN 15635, *Steel static storage systems — Application and maintenance of storage equipment*

EN ISO 6892-1, *Metallic materials — Tensile testing — Part 1: Method of test at room temperature (ISO 6892-1)*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1

frame barrier

free standing and floor fixed steel component(s) to protect the lower part of upright frames at the ends of runs and at passageways against accidental impact from mechanical handling equipment (MHE)

Note 1 to entry: Frame barriers are free standing and floor fixed components

Note 2 to entry: Figure 1b) shows a possible combination of a frame barrier with an upright protector. According to the design of the frame barrier it can also be installed by itself (see Figure 1a).

[SOURCE: EN 15878:2010, 3.3.8 – modified, “and floor fixed steel” added]

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