

FEM 10.2.16

**Most important aspects
of the FEM 10.2.16**



FEM

European Materials Handling Federation
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FEM Racking and Shelving



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FEM 10.2.16

European Racking Federation

FEM Code of Practice

The Design and Use of Rack Protection for
Adjustable Pallet Racking

Upright and Frame Protection

The above guideline has been published in 2017, but its existence is still not sufficiently known within the industry. With this article, we hope to at least make our partners familiar with this publication. The publication is a guideline that ensures safety when using pallet racking. The FEM 10.2.16 describes the protection of uprights and frame bracing for pallet racking.

Starting point

The design of pallet racking according to the applicable European standards EN 15512 & EN 15620 is the starting point of this standard. Just as inspections and repairs are carried out in accordance with EN 15635 to ensure the safest possible situation.

A risk assessment forms the basis for the design of a properly secured pallet racking system. A competent supplier in cooperation with the end user should carry out the assessment. Different assessments can be made for different situations in a warehouse. The result of the assessment gives an overview of the possible risks in a warehouse.

We refer to the original document in which the risk assessment is described in detail. The FEM 10.02.16 can be obtained from the following website:

<https://www.fem-rands.org/publications>

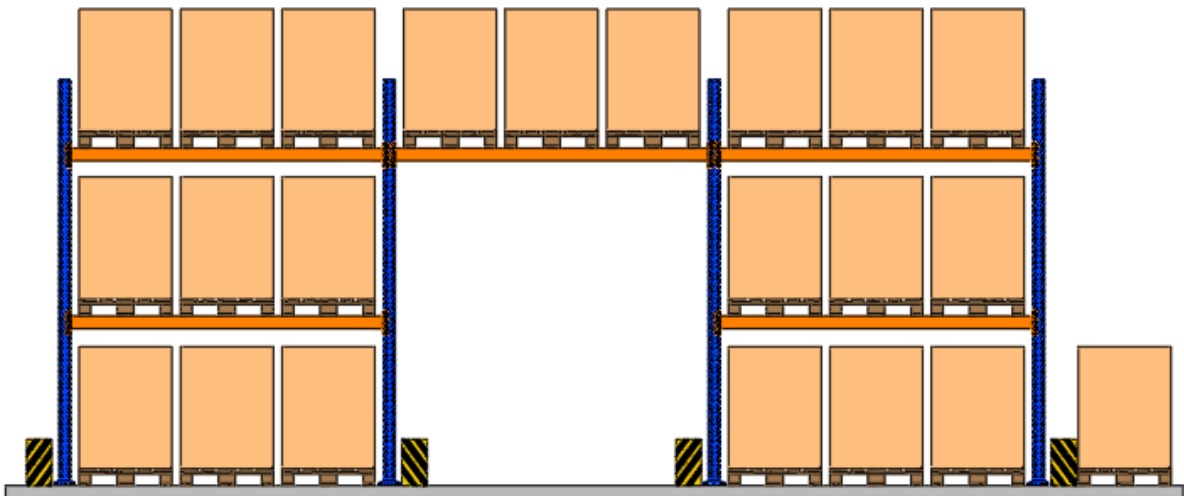
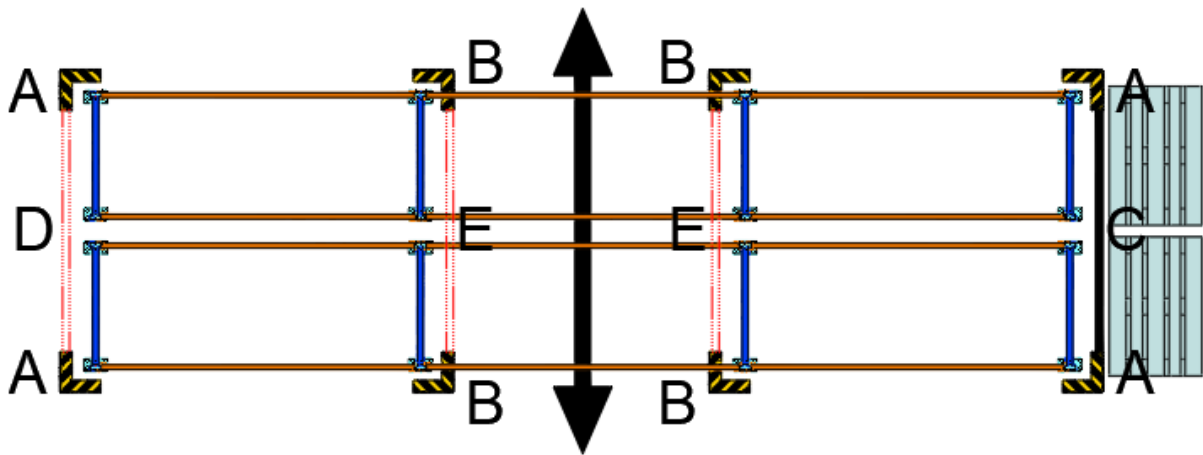
Based on the assessment result, a choice can be made for the collision protectors to be installed whereby the following must be respected:

Mandatory protection (see figure on next page)

- All aisle corners at the beginning and end of the pallet rack row (A)
- All corners of subways (B)
- All rear uprights and the frame bracing if pallets are placed on the front of the rack (C)

Not obliged but recommended (see figure on next page)

- Rear uprights and the frame bracing at the beginning and end of the pallet rack row (D)
- Rear uprights and the frame bracing in the corridors (E)
- Internal uprights within an aisle (F)



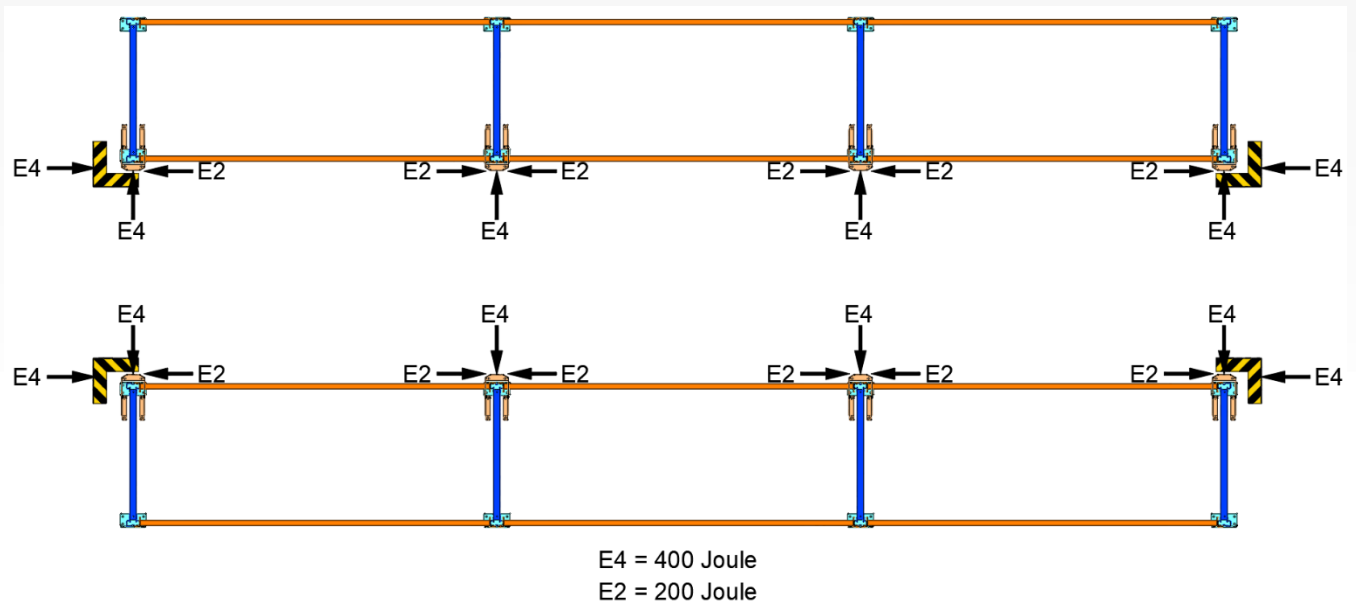
Requirements for protection

The FEM 10.2.16 does not specify the specific design of the protection and does not set requirements for the materials used. What is clearly described are the tests that must be carried out and the recording of these tests by the suppliers of the protection.

However, a number of dimensions have been laid down, the most important of which is the minimum height of 300 mm for both corner and upright protectors.

The color of the protection must be conspicuous, without this being specified in detail.

In addition, the minimum kinetic energy that a protector must be able to absorb without damaging the pallet racking components is indicated.



Protection type	Front impact	Side impact	Impact height
Corner protection	400 Joule	400 Joule	75 mm to top of protector
Upright protection	400 Joule	200 Joule	75 mm to top of protector

We hope that with this greatly simplified explanation of a 30-page guideline, we can help you provide your customers with a safe warehouse.

Questions

If you have any questions or need further explanation, please feel free to contact one of your Reseller contact persons at NEDCON.