

**EN 15512:2009 Steel Static Storage Systems – Adjustable Pallet Racking Systems –
Principles for Structural Design**

Extract Regarding Upright Protector Requirements and Design.

From Section 6.4.1 General

Impact damage caused by fork-lift trucks or other moving equipment against rack-uprights shall be avoided by appropriate operator training and safety measures. The minimum requirements for the protection of corner uprights shall be as follows.

- a) An upright protector with a height of not less than 400 mm shall be positioned at the end upright of each run of racking between cross-aisles.
- b) An upright protector shall be positioned at those uprights positioned at all aisle and gangway intersections.
- c) The upright protector shall be designed for an energy absorption of at least 400 Nm in any direction at any height between 0,10 m and 0,40 m.
- d) The upright protector shall be positioned in such a way that, after its deformation by absorbing an impact, the upright will not be damaged.
- e) Rack protection may be designed theoretically; alternatively testing shall be carried out for the purpose of acceptance. Tests shall be on the basis of a mass being dropped or swung into the protector to model the energy absorption requirement of 400 Nm.

NOTE 1 Uprights other than corner uprights may be protected in a direction normal to the aisle at the option of the user.