

Bolted frames

**Adjustment of beams
on 50 mm vertical pitch**

2-colour paint

**Accommodates
varying height and
width of load unit**

First in – First out achievable



Pallet Racking Type E

Adjustable Pallet Racking

Jungheinrich pallet racking has proved itself extremely well over more than 30 years through quality and universal application options. Deflections and stabilities are calculated according to RAL regulations RG 614-2. The FEM 10.2.02 regulation is the basis for the static test. We therefore guarantee the racking installation's high safety. The racking system type E also conforms to the regulations of the Main Alliance of Trade Associations BGR 234.

Racking Frames: The frames consist of 2 C-shaped strut profiles with stiffening

bracing that is bolted to these C profiles to form a rigid frame construction. These measures increase the stability and above all the torsion resistance. Tight tolerances guarantee high fit precision and stability.

Racking Beams: Racking beams are the horizontal connecting elements to the racking frames and are dimensioned in their clear width so that the required number of pallets can be stored next to each other. The box profile beams are fitted with additional stiffening folds to improve buckling strength and reduce

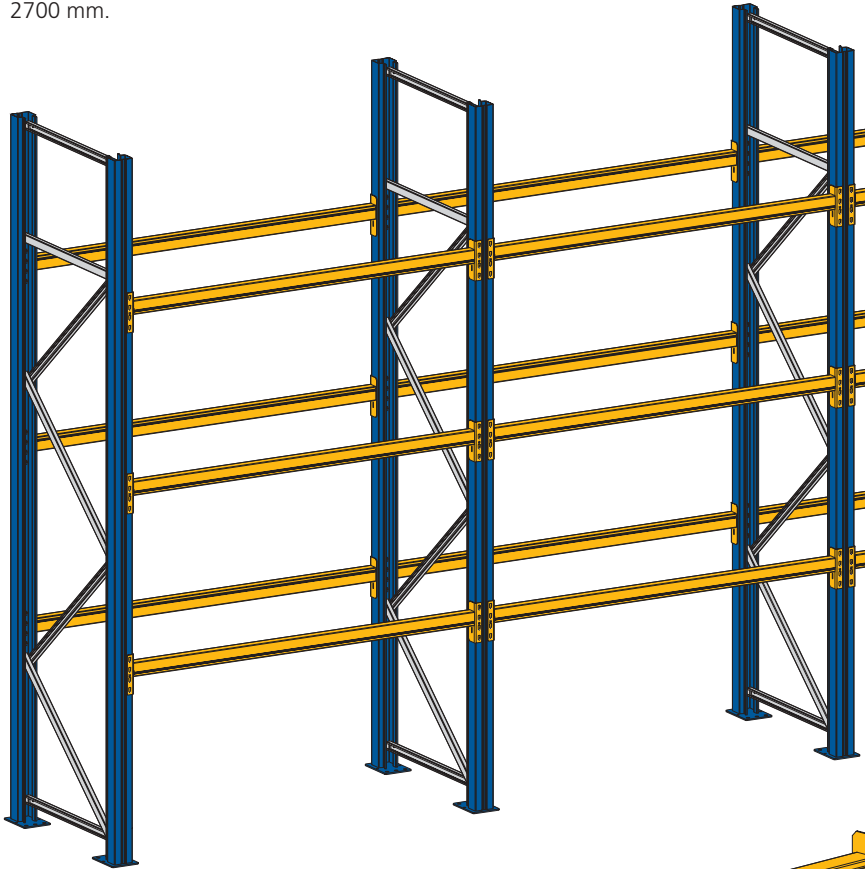
deformation. All shelves have high over-turn stability and excellent lateral rigidity. Beams made of hot rolled I or Z profiles are an alternative. Angle end connectors are welded to the right and left sides of the beams that fit into the perforations of the frames. The design of the connectors is such that it ensures, through its positive locking and frictional connection – together with the slanting hole form of the stanchion – a very rigid connection. This gives the racking system a high frame rigidity.

**JUNGHEINRICH**

Pallet Racking Type E

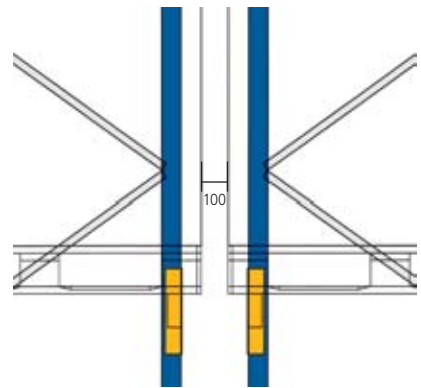
View of adjustable pallet racking

The bay width depends on the number and dimensions (incl. overhang) of the load units. Lengthwise storage per bay of 3 Euro pallets (1200 x 800 mm) next to each other results in a clear bay width of 3 x 800 mm load unit width plus 4 x 75 mm safety distance = 2700 mm.



Frame depth

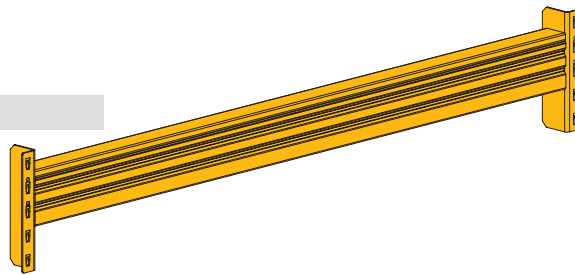
The frame depth is determined by the length of the load unit. There is usually an overhang at the front and the back of 50 mm each. When connecting two single racks to form one double rack and if there are no back stops, a safety distance of 100 mm between the stored load units must be maintained to conform to the regulations of the trade associations.



Racking frames

Racking shelves

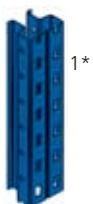
All racking beams have high tilt stability and excellent lateral stability.



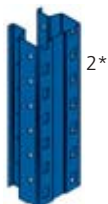
Frames: a choice of 12 profiles

No.	frame profile in mm	max. bay loading in t
1*	76.2	approx. 14.48
2*	100	approx. 25.86
3*	115/135	approx. 32.51

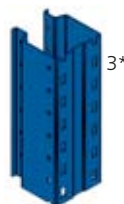
* in different material strengths.



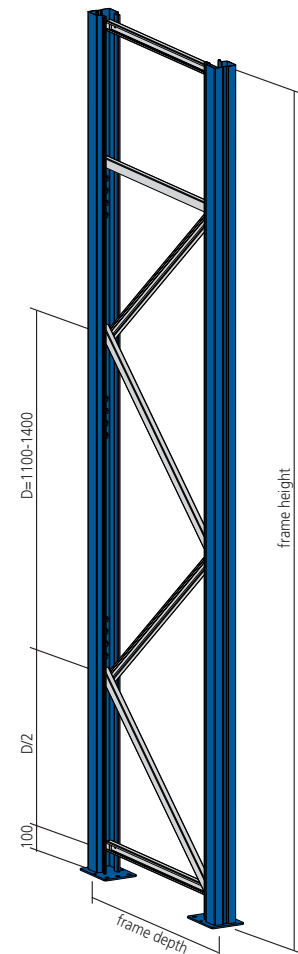
1*

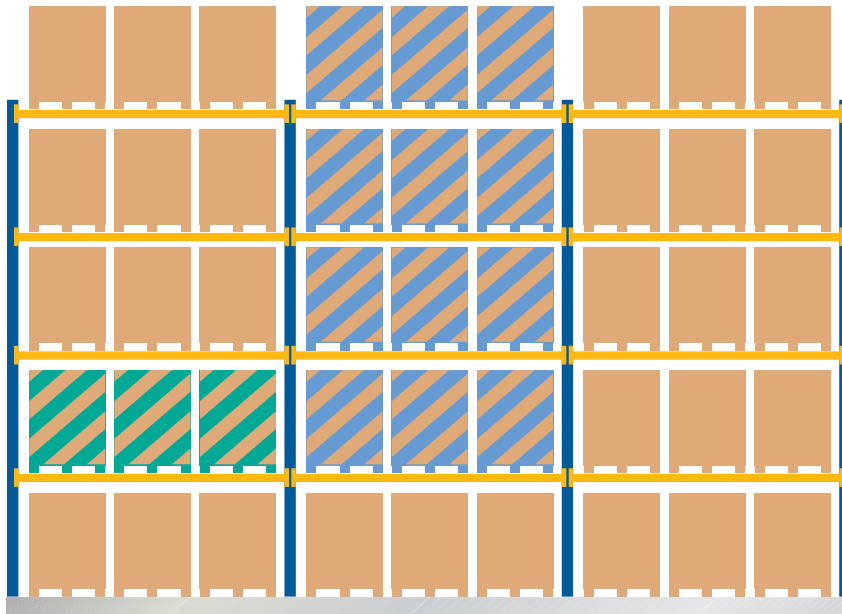


2*



3*





compartment load =
load weight x No. of pallets in the racking compartment

bay load =
sum total of compartment loads on racking levels

Paint

The Racking frame is RAL 5019 Capri blue, the racking beams are RAL 1007 daffodil yellow, powder coated and stove enamelled. The colour facilitates stacking and retrieval of loads also at high lift heights. The frame bracing is sendzime-galvanised steel.

Warehouse floor

For the safe anchorage of the racking installation, the warehouse floor must have a minimum concrete quality B 25 (with reinforcement) and a minimum depth of 200 mm and must be completely hardened. The client must produce proof of capacities and admissible surface pressures of the floor. If the floor is made of a material that chemically reacts to the racking, suitable countermeasures must be taken (e.g. the use of underlay plates made of plastic material).

Base plates

The base plates are bolted to the base of the frame uprights to transfer the load supporting pressure safely to the floor.

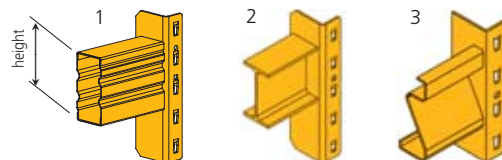
Adjustment options

The adjustment option for racking shelves is of special significance for the flexibility of material storage. For this reason, the frame uprights are perforated on a 50 mm pitch that facilitates quick adjustment to individual requirements. A push-in, strong safety lock prevents the shelves from being lifted off accidentally caused by over lifting of loads underneath.

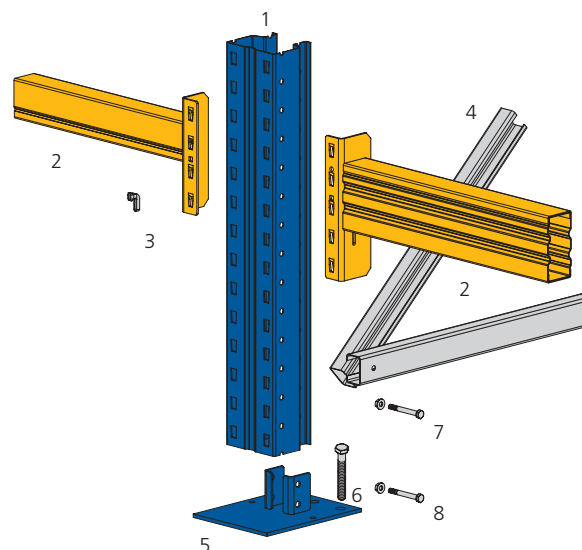
Shelves: a choice of 16 profiles

No.	profile type	height in mm	compartment load in kg
1	box (GNA)	70–150	400–5500
2	INP/IPE according to DIN 1025	80–160	400–5500
3	Z profile	105–120	400–4300

clear field values of 1000 to 4500 mm



Detail views



- 1 Upright profile
- 2 Racking beam
- 3 Safety pin
- 4 Frame Bracing (Bolted)
- 5 Base Plate
- 6 Floor fixing
- 7 Bolt M8 for bracing
- 8 Bolt M8 or M10 for base plate

Accessories

Jungheinrich racking systems can be supplemented, extended and secured through an extensive accessories range.



Pallet Supports / Back Stops

Wherever additional support for a pallet is required (e.g. for crossways storage), pallet supports or back stops are the safest solution.



Pallet support bars



End frame extensions RAL 1007

Safety devices

Corner upright guards are designed for a collision energy of 400 Nm and conforms in its dimensions and markings with BGR 234.



Back stops RAL 1007
500 mm high



Mesh screens galvanised
mesh width 30 x 30 mm

Ancillary equipment

If order picking is carried out from the lower levels in a racking installation or, if pallets or containers of different dimensions are to be stored, shelves made of chipboard, mesh or steel panels are used. Transit pedestrian gangways through racking must always be fitted with shelves above for safety reasons.



Chipboard shelves in 22 to 38 mm thickness



Vertical mesh screen to protect traffic routes and working areas



Frame Spacer

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