Important: Pallet Racking should be installed by professional SEMA Approved Installers, using appropriate equipment for lifting frames and safely fitting beams at height. Hand erection of racking should only be done with low height/light duty racking frames, typically up to about 4m high, but you must conduct a Risk Assessment and determine a safe method of work.

Tools required: Chalk line, rubber mallet, screwdriver, percussion drill and metric socket driver.

Safety advice: Wear protective gloves, safety shoes and head protection. Use safety goggles and ear defenders when drilling the floor. Cordon off the working area. Prevent access to anyone not involved. Mark out rack positions ensuring parallelism to walls and/or adjacent racks.

Fit a first beam level at low height to stabilise the racking structure. This level can be repositioned later when additional levels have ben fitted. Fitting high level beams should be from appropriate access equipment, typically a scissor lift. Climbing should be avoided. If there is no alternative then it should be by properly trained personnel using harnesses and fall arrest systems.

End frames should be 500mm min above the top beam level. Inner frames may be 100mm above.

Allow for pallet overhang on single runs against walls *.

Position frames such that the node points of the first pair of diagonal braces face the trucking aisle.

Runs must have a minimum of 3 bays and 2 levels with the first level no higher than 1600mm. Other configurations may well be acceptable, but must be checked.
Beams locate into posts on 50mm pitch adjustability. Ensure both front and back beams are level and horizontal. Avoid impact damage to beam surface. Lever beams into position if necessary.

Fit a safety pin at each end of the beam. Insert horizontally, turning the pin towards the centre of the post and then downwards to make the pin vertical.

Always use the safety pins provided. Do not replace with bolts or non-approved pins.

Use shim plates to level the racking. Floor fix with 2 sleeve anchors per footplate. Drill 12mm diameter. Drilling to a depth of 110mm allows for anchors to be knocked into the ground should the racking be removed.

Fit double-sided runs with Row Spacers. Use 4 No. M8 x 25. Two Row Spacers up to 6m frame height. Three from 6m to 10m frame height. Fit at top and bottom (and middle) diagonal node meeting points.

All racking systems must be fitted with a Load Notice. Racking arranged in runs such that a forklift truck turns from a transfer aisle into a rack facing aisle must have suitable Rack Protection to conform with the SEMA Code of Practice.

Reminder: Racking should be installed by professional SEMA Approved Installers, If in any doubt, please contact Rapid Racking
All pallet racking systems should have a Load Notice. It will show the beam capacity and total permitted bay load. Read it carefully. If in doubt, ask the supplier for clarification.

Repositioning beam levels has an effect on load capacity. Do not make unauthorised alterations to beam positions.

Beam load capacities are dependent upon the load being “uniformly distributed”. Ensure that pallets are loaded correctly with equal clearances and with equal overhangs. Product should not overhang pallets – unless an allowance for this was made in the rack design.

Ensure sufficient lifting clearance for safe loading.

Use good quality pallets, correctly orientated and evenly loaded.
Beams will deflect under load.

Ensure that deflection is within acceptable limits – usually beam span/200 for free roaming trucks

e.g. 2700mm beams may deflect up to 13.5mm at mid-span

Pallets must be lowered vertically to ensure the load is evenly transmitted to both beams

Pallets must be lifted cleanly, without dragging or pushing beams

Conduct regular checks for alignment and damage to all components.

Damaged Beams must be replaced

Upright posts must be replaced if deflection is more than 5mm per 1m length in the down aisle direction, or 3mm per 1m length in the depth.

Bracing must be replaced if deflection is more than 10mm/m or pro-rata

**DAMAGED RACKING MUST BE REPORTED AND OFFLOADED IMMEDIATELY**