



## Racking FAQ's

Q: Can I just have the standard racking please?

A: This would be the most common question asked and unfortunately it is answered by more questions. There is no such thing as standard racking although there are some commonly used sizes which accommodate standard Chep pallets. Mostly it is the lift height of the Fork truck or the building height that will establish how tall you can go with your racking frames. Then the product that you intend to store on the racking is the next factor that will establish your beam requirements. If you are using standard Chep pallets and the product you are storing on these pallets does not overhang the pallet then 2600 wide beams would suffice. If the product does overhang then the next recommended beam width would be 2750. The next crucial factor is the weight of the pallets as this will affect the type of beam to be used. The most common beam supports 2000kg UDL which means that you can have 2 pallets weighing no more than 1000kg each side by side. Pallet racking frames and beams are available in a vast weight carrying capacity and sizes to accommodate most requirements.

Q: What does UDL mean?

A: UDL means Uniformly Distributed Load and is used when rating pallet racking beams. It applies to a pair of beams that constitute a beam level and means that the load must be uniformly distributed over the width of the beams. If your beams are rated at 2000 kg per pair this does not mean that you can put 1 pallet weighing 2000kg on this level as this becomes a point loading and will damage your racking system.

Q: Can I put pallet racking outside in the weather?

A: Yes you can if the pallet racking has been galvanized and this means the frames, beams and fixings must all be galvanized. Generally speaking most brands of pallet racking have been powder coated and can only be utilized inside as they will rust if used outside. Rain water can collect in pallet racking beams when used outside and begin corrosion on the inside where it cannot be seen and severely alter the load capacity of the beams. The frames can be particularly vulnerable as they can be standing in water and begin rusting from the bottom up. The base of the racking frames are supporting all the weight of the product being stored and when they corrode they will weaken and the risk of collapse is very high

Q: Can I put my pallet racking on bitumen

A: No, definitely not. Pallet racking can support many 1000's of kilograms and needs to be installed on a concrete floor capable of supporting these loads. You can if necessary install concrete pads to support the pallet racking frame if you have to utilize a bitumen area and the size of the pads will be dependent on the subsoil composition.

Q: Does my pallet racking need to be fixed to the floor?

A: Yes it does. AS4084 – 2012 states that 2 fixings per base plate are required or 4 fixings per frame. Amazing as it may seem we have witnessed on quite a few occasions pallet racking fully loaded and not fixed to the floor. Extremely dangerous practice

Q: Will my floor support the weight of my loaded racking?

A: This question really needs to be answered by an engineer if you are referring to an existing floor. If you are designing a new warehouse then racking loads will need to be taken into account by an engineer in the design phase. Generally speaking though, most concrete slab warehouse floors will range from 150mm – 250mm thick with a sub base at least 150mm. Sub base is used to improve the loading of a slab floor and can consist of crushed stone that is compressed prior to pouring the slab. A minimum of 32 Mpa is required for forklift traffic. Mpa or Megapascals refers to the compressive strength of concrete. 1 Mpa equals 145 psi or pounds per square inch. Most house slabs, driveways, footings and footpaths range between 20 – 25 Mpa's. Most Warehouse slabs range from 32 to 40 Mpa and in some instances 50 Mpa. Of course subsoil, sub grade, steel reinforcement and Mpa rating will affect the final loading that a slab floor will support.

Q: How much weight can I put on my beams?

A: Pallet racking beams are available in many different load capacities and can be rated as high as 4000kg UDL per level. The supporting frames will be designed to carry these loads. If your racking has been rated at 4000kg per level it will quite safe to load to these limits but not over

Q: Does my racking need to be inspected?

A: Pallet racking systems should be inspected regularly. At a minimum of once every 12 months a complete and diligent inspection should performed. If your racking system is subject to high usage then more frequent checks should be made.

Q: Can you come out and inspect our racking?

A: City Shelving can arrange to do a professional rack inspection or a complete audit

Q: Does my pallet racking need load signs?

A: According to Australian Standards AS4084 – 2012 a racking installation shall have a load sign in one of more conspicuous locations. Load signs provide information on permissible loads, distance from the ground to the first beam level and other relevant information

Q: What should I do if I have damaged my pallet racking?

A: In the event that you have damaged a beam only then that level should be unloaded immediately and a replacement beam sought. Even if the damage appears to be slight it still can reduce the load bearing capacity of that beam and should be replaced. A falling pallet can do a lot of damage and inflict horrific injuries and even death. Damage to a frame commonly occurs near the bottom where the frame is subject to its highest loading and you should immediately unload the whole bay. If it is an end frame that is damaged then just that bay would be sufficient but if the frame is supporting beams from adjacent bays then they should be unloaded as well. Contact us to get the damage repaired promptly