



Racking Inspection *Solutions*



Colby Dandenong offers racking inspections, regardless of brand, by expert staff and can provide reports and repairs.

Guidance Note

WorkSafe
VIC
SAFETY

Pallet racking operation and maintenance

This information sheet provides advice on the safe operation and maintenance of pallet racking in warehouses and storage areas.

September 2012

Background

There have been reports of damaged or overloaded racking at many workplaces that store pallets in racking. This includes an incident where racking collapsed onto a worker who was stacking goods.

This advice is for employers and will also be useful for persons in charge of racking and those who work around racking, including warehouse managers, operations managers, general managers, maintenance managers, forklift operators, store persons and health and safety representatives.

As an employer, you must ensure, so far as is reasonably practicable, that racking equipment and the way it is used and operated is safe for workers and others.

Note: This information sheet is for standard 'selective' pallet racking. Additional safety measures may be required for cantilever, drive-in, double-deep, pallet-lift, push-back or other specialised types of racking.

Operation and maintenance

Racking design

Racking should be set up, operated and maintained according to the instructions of the racking manufacturer and be in accordance with AS 4084:2012 - Steel storage racking. It should be designed specifically for the size, shape and weight of the products being stored.

Racking should also be compatible with the pallets and the material handling equipment used in the workplace. For example, aisle width should be matched to the turning circle of the forklift used for picking and replenishment.

Any modifications should be checked by the original supplier/manufacturer/designer.

If in doubt, seek advice from the racking manufacturer or installer, or a competent person with experience in racking design and construction.

Working load limits

Working load limits should never be exceeded for the unit load (pallets of goods to be stored), pallet beam or bay.

Provide information for workers about the safe working loads (SWL) for pallet racking. For example, place signs in visible areas that include:

Figure 1: Typical racking SWL sign

Note: SWL in this case is based to a unit load of 1200kg on a standard pallet. For uneven loads where a large load is only supported at two or three points, refer to the supplier to determine whether the racking is capable of supporting that load.

- racking manufacturer's name, supplier's name and trademark, and the installation date
- designer's name
- working unit load limit
- total working unit load limit for each pallet beam level
- total working unit load limit for each bay
- maximum distance from the base plate level to the first beam level and maximum distance between first and second beam levels.

See Figure 1 for an example of SWL. There should be some means of determining the weight of each unit load being placed into racking.

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AS 4084

Damage

Prevention

Prevention

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Prevention



AS4084-2012 ANNUAL RACKING INSPECTIONS

**INSPECTIONS BY EXPERIENCED STAFF
WHO ARE EXPERTS IN RACKING TO
AUSTRALIAN STANDARDS**

Why Inspect Racking?

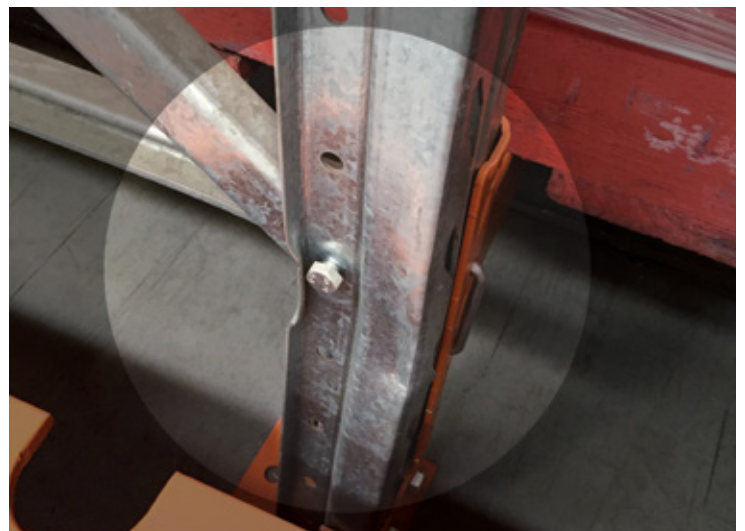
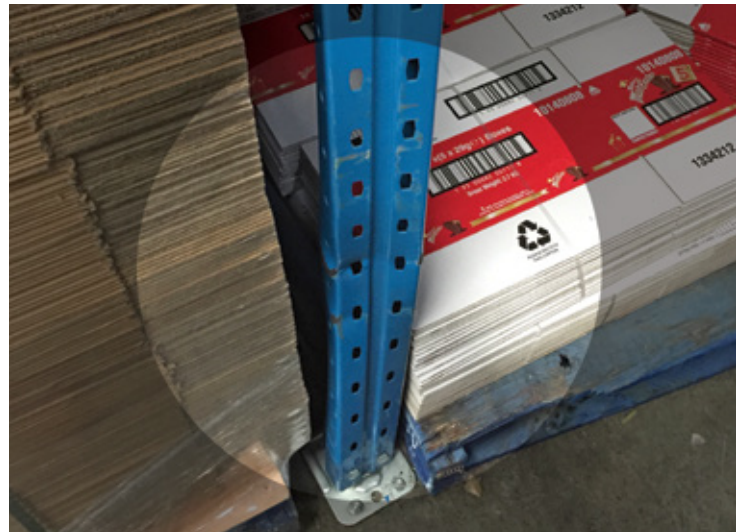
Apart from a legal requirement from WorkSafe Victoria, you should consider the impact to your customers and cash flow if you suddenly lost access to stored product. What if someone was injured or worse in the event of a collapse?

Racking damage is categorised as per AS4084-2012:

- **RED RISK**
 - Very serious damage;
- **AMBER RISK**
 - Hazardous damage;
- **GREEN**
 - Acceptable damage.

Benefits of Inspections:

- Safety risks identified;
- Avoid WorkSafe PIN notices;
- Maintenance of warranty;
- Reduce insurance disputes and legal complications;
- Peace of mind.



Pallet Racking Brands

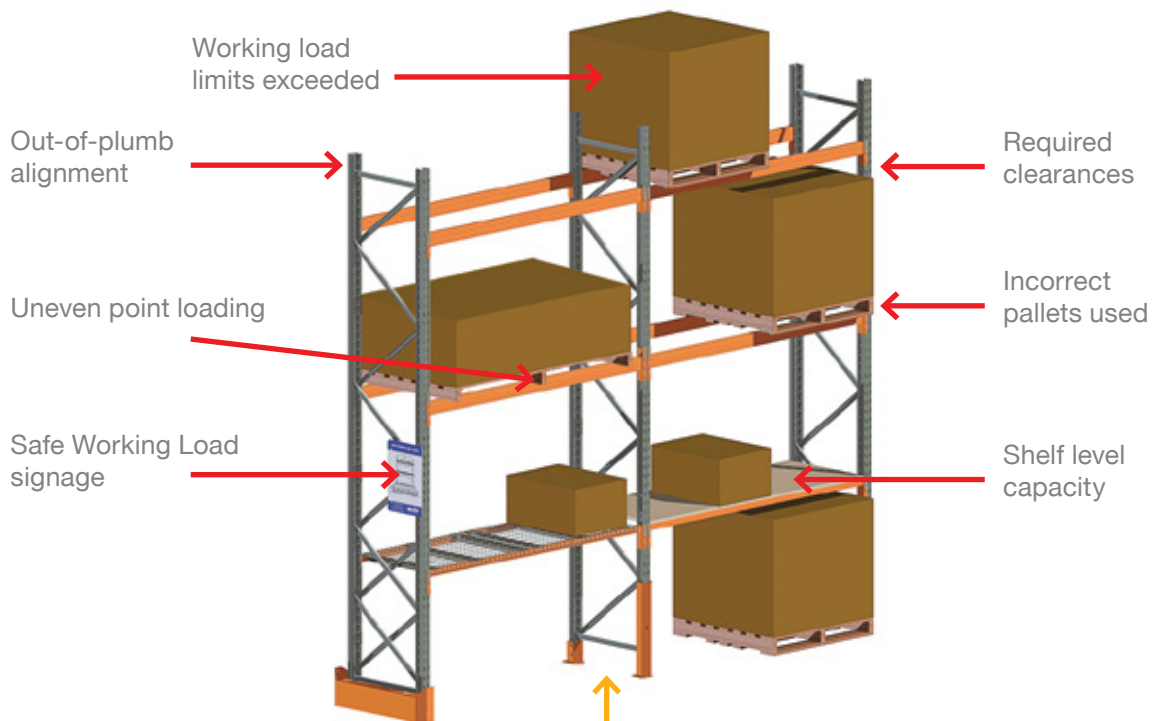
Colby Dandenong can inspect your pallet racking regardless of brand, and provide a report and repair quotation.



Where does most impact damage occur?

In 95% of cases, structural integrity damage occurs within the first 2-3 metres from the floor.

Typical damage and non-compliance



We sell racking protection



Structural Rack-End Protectors



Upright Protectors



Safety Bollards

What do Inspections look for?

There are a number of potential issues Inspectors look out for, the most obvious being impact damage, but there are many other not-so-obvious factors including:

- Correct application and use of appropriate materials handling equipment;
- Working load limits and point loading – floor or beams;
- Altered racking and non-compliant or missing S.W.L. signage;
- Extent of impact damage;
- Out-of-plumb racking and other alignment issues;
- Dislocation and deformation of sections and connectors, including signs of corrosion or cracking of the welds;
- Base plates and floor anchors;
- Non-compatible components;
- Design non-compliance (e.g. height-to-depth ratios, clearances, etc...).

How to avoid damage?

Apart from regular employee training and warehouse traffic management, physical structures such as safety bollards can be placed strategically near, or mounted on pallet racking to protect it from impact damage. These may include guard rails, guide rails, structural rack-end protectors, upright protectors (e.g. Colby Protect-a-RACK), corner guards, safety bollards, traffic mirrors, line marking, etc...



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The logo for Colby Storage Solutions Dandenong is printed in black on a light-colored wooden pallet. The logo consists of a stylized 'colby' followed by 'Storage Solutions' and 'Dandenong' below it.

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Dandenong

