

Drive in racking is a firm favourite when it comes to high density racking solutions, especially in distribution centres and cold stores where maximising capacity is a key driver.

However, like every racking solution, drive in racking isn't perfect.

And as companies are looking to get everything they can out of everything they've got, many are looking at the benefits shuttle racking can offer over Drive In.

Increase storage capacity

Drive in racking is seen as a superb high density storage solution however it has its limitations.

As the name suggests drive in racking requires a forklift truck to enter the system to deliver and retrieve pallets. If you try to make the system too deep or too high, the time and effort to carefully position the pallet makes it virtually impractical to operate effectively.

The traditional approach is to restrict the drive in racking to approximately 4 pallets high and 7-10 pallets deep, which tends to see a grid layout of operating aisles for forklift trucks – see figure 1.

With a Shuttle Racking System, the forklift never enters the system. The shuttle does all of the work to take the pallet from the face of the system to the next available position.

This enables the system to be as deep and as high as your cube allows and avoids the need for operating aisles, thus maximising the available space – see figure 2.

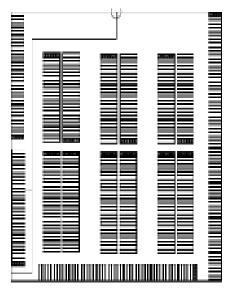


figure 1

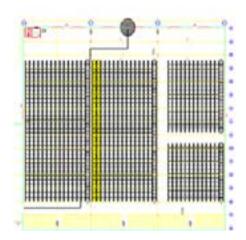


figure 2



2. Avoid Costly Racking Repairs

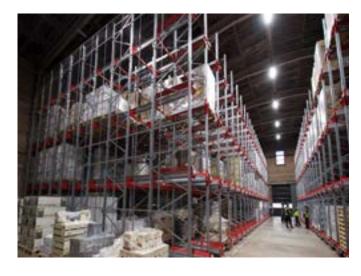
Manoeuvring the forklift into the racking system to deliver and retrieve pallets automatically increases the likelihood of uprights being damaged and causes the racking system to become a health and safety issue.

As a rule of thumb, we estimate that approximately 5% of uprights are likely to be damaged annually in a drive in solution

Replacing the damaged structure is only one element of the cost. The time and money involved in offloading the goods in the bay and the affected surrounding areas is often the highest cost but is often overlooked in the overall cost analysis.

Compare this to the Shuttle Racking solution, where the forklift never enters the racking structure, dramatically reducing the likelihood of racking damage.

Any ongoing maintenance to the shuttle can be carried out safely at ground level.



KEY BENEFITS OF SHUTTLE RACKING V DRIVE IN

- > Dramatically increase capacity
- > Improved Space Utilisation
- > Reduce operating costs
- > Reduced damage to uprights
- > Reduced Damage to Stored Products
- > Reduced travel and picking times
- > FILO or FIFO options
- > Reduced energy usage
- > Increased Pay Loads Per Operator Per Day



3. Reduced Travelling Times

Travelling and loading times are one of the hidden costs in warehousing. Every forklift driver will be saying that they are going as fast as they possibly can, and asking a forklift driver to try to speed up may only result in further damage to the racking.

But when you consider that a forklift driver may have to enter a drive in system and carefully manoeuvre 7 pallet spaces deep before retrieving a pallet from the fourth level, you can understand why travelling times are so high.

And that doesn't take into consideration that he may have to drive halfway across the warehouse to access the relevant bay.

With real pressure to minimise the amount of time a wagon is sitting on the docking bay, companies have had to invest further in their fleet of forklift trucks and drivers, whereas a change in racking system may, in fact, offer significant long term savings.





4. Increased Utilisation

The maximum available capacity is one thing, but only if you can use it.

One of the biggest issues with Drive in Racking is managing the available pallet positions through the day to day movement of goods.

Once pallets are retrieved from the racking system, it can be challenging to replenish stocks. Therefore, many companies spend significant amounts of time during the night shift simply moving pallets within the drive in racking simply to maximise their utilisation.

In the research we have carried out, we estimate drive in racking to deliver an average of 65-70% utilisation. However, if this utilisation rate requires significant man hours to deliver, the hidden costs of wages and fuel for forklifts must be considered.

In comparison, a well designed shuttle racking solution can expect to deliver on average 80-85% utilisation.

5. Energy Savings

As every company becomes more environmentally aware, coupled with government legislation and rising energy costs, more and more businesses are examining every opportunity to reduce their carbon footprint.

As well as requiring fewer forklift trucks due to reduced travelling times and electricity or LPG consumption, shuttle racking solutions require less lighting in the middle section of the racking where there is no requirement for operators or forklifts to access.



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