

PALLET RACKING SOLUTIONS



Whittan

Link51

DESIGN MANUFACTURE INSTALL

Link51 specialises in the design, manufacture and installation of a wide range of versatile storage equipment; from adjustable beam pallet racking and heavy duty shelving, through to 'live storage' and fully integrated 'turnkey' warehouse schemes.



THE UK'S LARGEST INDIVIDUAL SUPPLIER OF PALLET RACKING

Link51's pallet racking is one of the most widely used pallet storage systems available today, with over 65 years experience in the storage and handling industry.

Designed for strength, durability, ease of assembly and operational reliability, our pallet racking system comprises of comprehensive choices of frames and beams. It can be precisely selected and combined to meet the load requirements of any heavy-duty storage application and configured in a variety of ways and systems, to meet your needs.



We are a member of the Whittan Group, the largest manufacturer in the United Kingdom of steel storage products. Operating through a number of market leading brands, we design, manufacture and install storage solutions for commercial and industrial environments.

MANUFACTURED IN THE UK

Maintaining in-house manufacturing and quality control allows, our clients to benefit from our extensive experience in steel forming and fabrication techniques; creating custom-designed storage solutions using standard or 'bespoke' components.

Our pallet racking system is made in Milton Keynes at one of the largest manufacturing operations in the storage equipment industry.

The central location of the factory ensures effective delivery and helps minimise our carbon footprint.



QUALITY ASSURED

Link51 maintains rigorous management processes to ensure compliance with and accreditation to a wide range of policies, covering health & safety, environmental and quality.

We operate quality systems in accordance with the latest ISO standards.



ISO 9001:2008
Certification of quality management system for all areas of the business.



ISO 14001
The globally recognised standard for environmental management.



BS OHSAS 18001-2007
The international standard for occupational health and safety management.

As a founding member of the Storage Equipment Manufacturers' Association (SEMA) we are committed to the safe design, installation and use of storage equipment.



PROJECT MANAGEMENT YOU CAN RELY ON

The increasing complexity of modern storage installations often require a wide range of services to work on site at any given time. This, coupled with tighter project timescales and greater financial implications for failing to complete the job on time, has put an even greater emphasis on the need for efficient project management.

Our experienced and knowledgeable project management team is ready to meet the varied storage requirements of our customers, irrespective of size, complexity or location.

We can offer a range of services to comply with The Construction (Design and Management) Regulations 2015 and all relevant industry & building control standards.

From the initial briefings and site surveys, to detailed design proposals, manufacturing, installation and final commissioning; our storage experts take project planning seriously, so you know your project is in good hands.

Link51 will approach your installation with care and attention, in order to achieve the optimal solution and meet your on-going strategic needs. Where appropriate, we will assign a project manager to facilitate this, especially on larger projects.



SAFETY FIRST

Link51 continuously improves process management structures to ensure compliance with ISO accreditation. Whittan Group is committed to Safety, Health, the Environment and Quality Assurance. SHEQ is at the forefront of our business. We are fully aware of the responsibilities that come with working in a high risk industry, and as such we constantly strive to continually improve our solutions that safeguard our staff, our customers, our supply chain and our planet.



Our overall approach to efficiency, means that both customers and colleagues are able to make the safe choice. Our Safety, Health, Environment and Quality statements, along with our wider policies and procedures, allow us to maintain the highest standards of efficiency. SHEQ is constantly reviewed to promote a 'zero harm' culture across the Whittan Group.

Working in compliance with the SEMA codes, Link51 provides recognised quality assurance to our customers, who can have full confidence in our abilities as a premier storage equipment supplier.

We ensure that we conform to all applicable industry standards; covering storage installation, (including correct health and safety practices). All of our method statements and procedures are based on published SEMA guidelines.



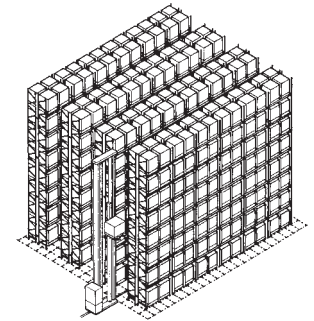
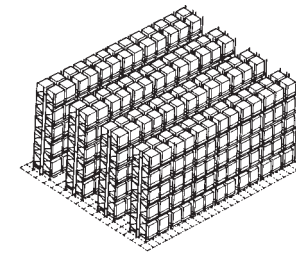
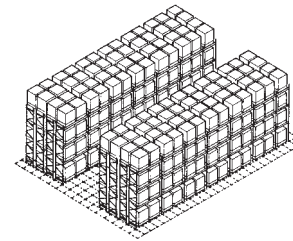
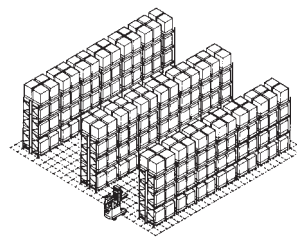
Additionally, our quality assurance systems, assessed to ISO 9001, cover not only manufacturing, but also installation; ensuring that all processes are formalised and regularly audited. We want you to experience the peace of mind you get from a professionally designed and installed storage solution.



CHOOSING THE RIGHT SOLUTION

Initial briefing meetings are required in order to assess and evaluate your storage and handling requirements.

The chart below offers a visual way to compare various pallet racking systems and their advantages and limitations.



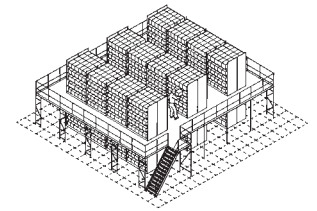
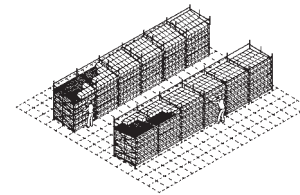
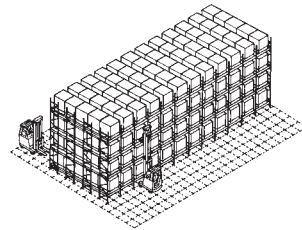
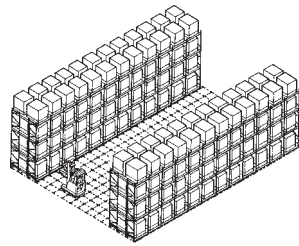
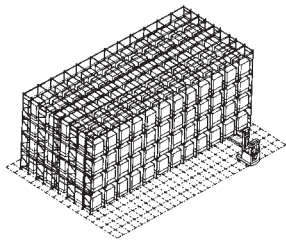
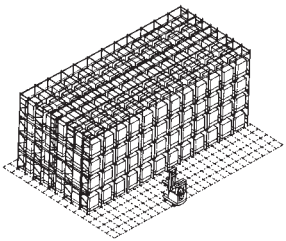
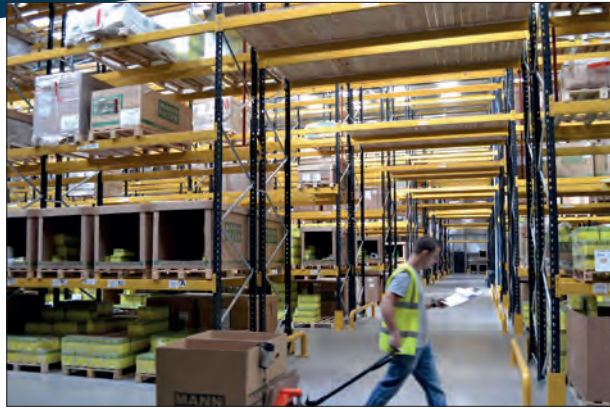
Wide Aisle

Double Deep

Narrow Aisle

ASRS

	Wide Aisle	Double Deep	Narrow Aisle	ASRS
Space utilisation of floor area	✓ ✓ ✓	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓
Utilisation of cubic storage space	✓ ✓ ✓	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓
Access to individual pallet loads	✓ ✓ ✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓
Speed of access & throughput	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓
Efficiency in stock rotation	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓
Efficiency in stock control	✓ ✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓
Specialised handling equipment	None required	Required	None required	None required
Ease of re-location	✓ ✓ ✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓ ✓ ✓
Ease & speed of installation	✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓ ✓ ✓
Adjustability of beam positions	✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓	✓ ✓ ✓	✓ ✓



Drive In

Shuttle

Push Back

Pallet Live

Carton Live

Pick Towers

✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
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Truck / Rack Interface

None required

None required

None required

Manual Loading

Manual Loading

✓

✓

✓

✓

✓

Variable

✓

✓

✓

Varies on Size

STORAGE CAPACITY

Example

For 1200 entry x 1000 pallets in a 3,000m² warehouse (using Wide Aisle Pallet Racking).

Find 3,000 on the bottom of each chart then follow the vertical line up to the point where it meets the diagonal line for Standard Aisle Pallet Racking.

At this point follow the horizontal line back to the left hand side; this will be the number of pallets per level. So, for Wide Aisle Pallet Racking in a 3,000m² warehouse there will be 750 pallet positions per level.

Further guidance

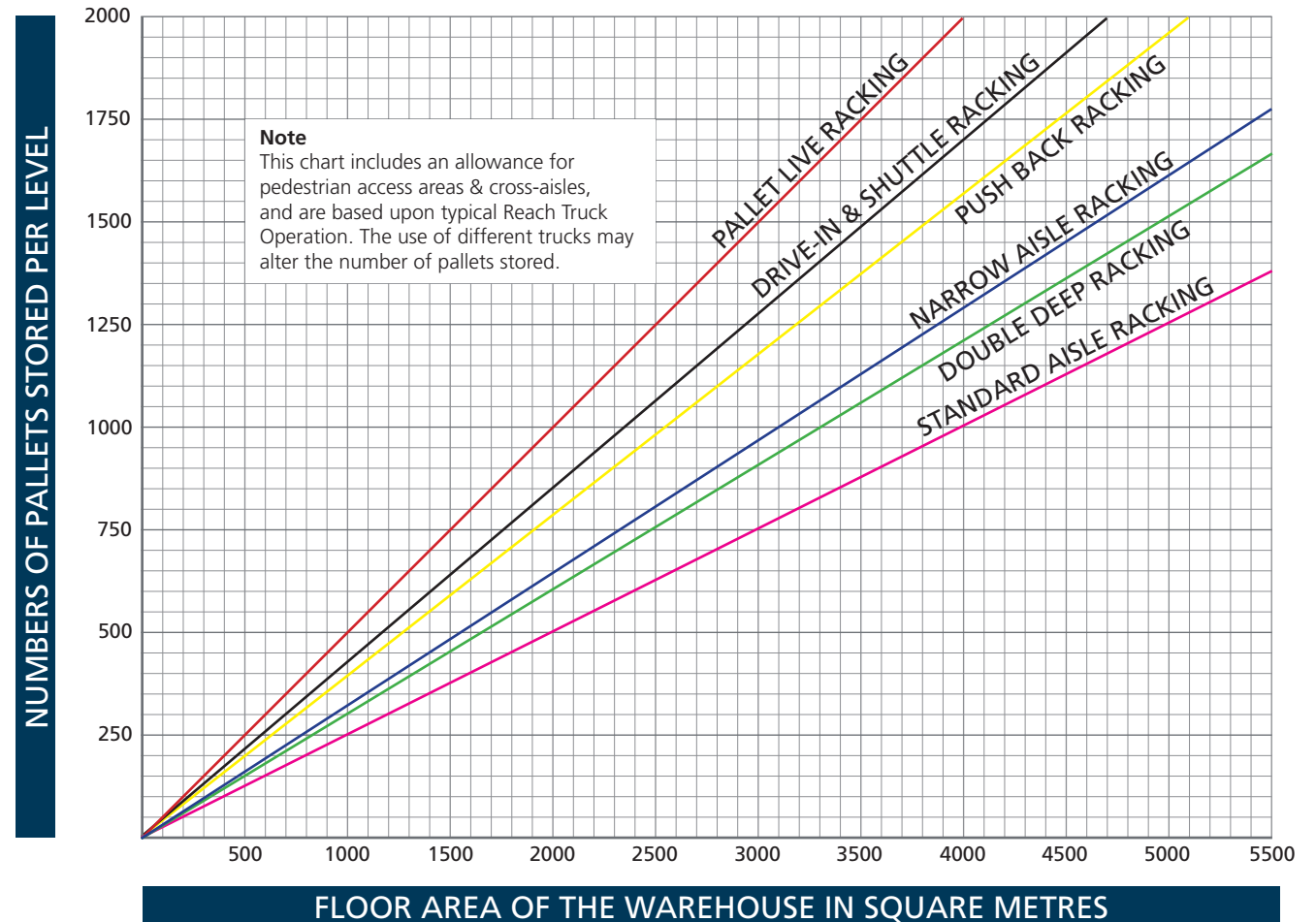
How many levels will there be?

The following details will help determine the number of pallet levels: -

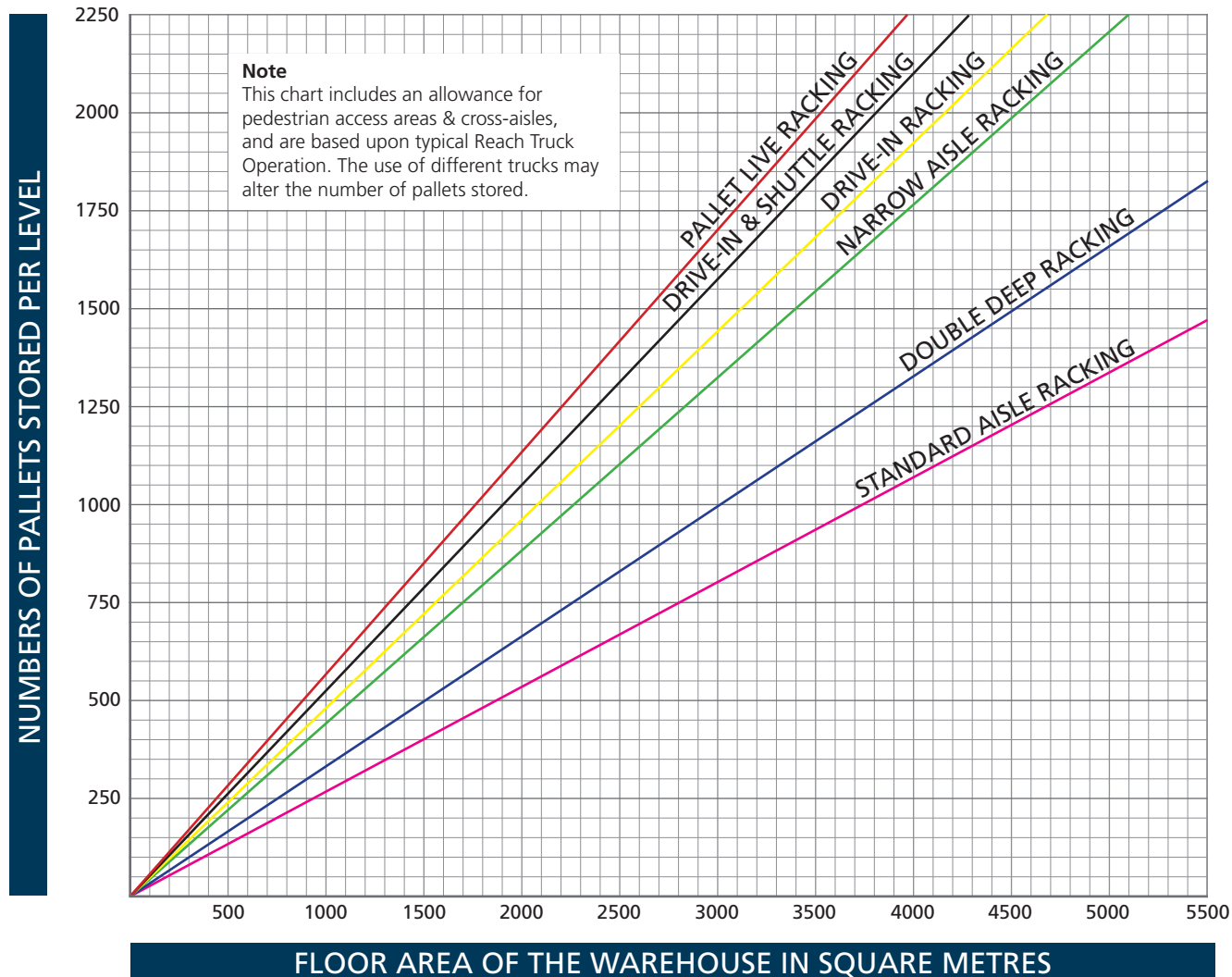
- The height of the pallet
- The height of the building
- The lift height/capability of the fork lift truck

These charts give an indication of the number of pallet positions available in a given space depending on the type of pallet racking storage system used, based on the 2 most popular pallet sizes, 1200 entry x 1000 and 1200 x 800 entry pallet.

PALLET SIZE 1200 x 1000mm



PALLET SIZE 1200 x 800mm



HOW WILL THE WAREHOUSE OPERATE?

The throughput of the pallets should also be considered. For example, some of the higher density systems may limit access to stored pallets.

General guide

Mechanically Handled:

Wide Aisle Pallet Racking - 100% access to every pallet

Double Deep - FILO (First In Last Out)

Narrow Aisle Pallet Racking - 100% access to every pallet

Drive In - FILO (First In Last Out)

Push Back - FILO (First In Last Out)

Pallet Live - FIFO (First In First Out)

Shuttle - FILO (First In Last Out) and FIFO (First In First Out)

Manually Handled:

Carton Live - FIFO (First In First Out)

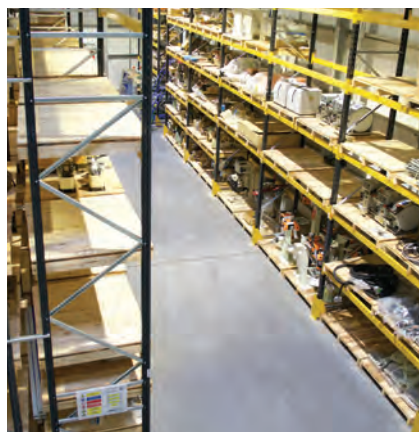
Pick Towers - 100% access to all pallets & SKU's

For larger schemes, a combination of pallet racking systems will offer the optimum solution. The charts are for general initial guidance only.



WIDE AISLE

- Easily installed, cost-effective and versatile; wide aisle racking is the most commonly used pallet storage system.
- Direct access to each pallet stored.
- With adjustable beams, racking can be re-configured to accommodate changes in the type of goods stored.
- Wide aisles allow access by all types of truck, making specialised handling equipment unnecessary.



DOUBLE DEEP

- Double Deep pallet racking, as the name implies, allows pallets to be stored two deep, with both pallets accessible from the same aisle.
- By reducing the number of access aisles and using the space saved to accommodate additional racking, a Double Deep configuration provides a highly space-efficient storage system.
- Pallets stored two deep require forklift trucks with extendable forks.
- Speed of access to all pallet positions is restricted.





NARROW AISLE

- Trucks operate in aisles that are (up to) half the width of wide aisle pallet racking. Narrow aisles make excellent use of floor space and maximises the height at which goods can be stacked.
- Easy, individual access to all pallets stored.
- Specialised lift trucks are required in either 'man-down' or 'man-up' variants, allow manoeuvring in the narrow aisles between racks.
- Rails or wires at floor level guide trucks precisely into position; reducing the risk of accidental damage from user error and improving safety within the system.
- Use of cameras, indexing and RFID.



ASRS

- Gives easy access to all pallets stored, with working aisles reduced to the absolute minimum to save floor space. Pallets are stored at heights of (up to) 30 metres.
- These racking systems are served by order picking stacker cranes: providing fast throughput and high accuracy in storage and retrieval.



DRIVE IN

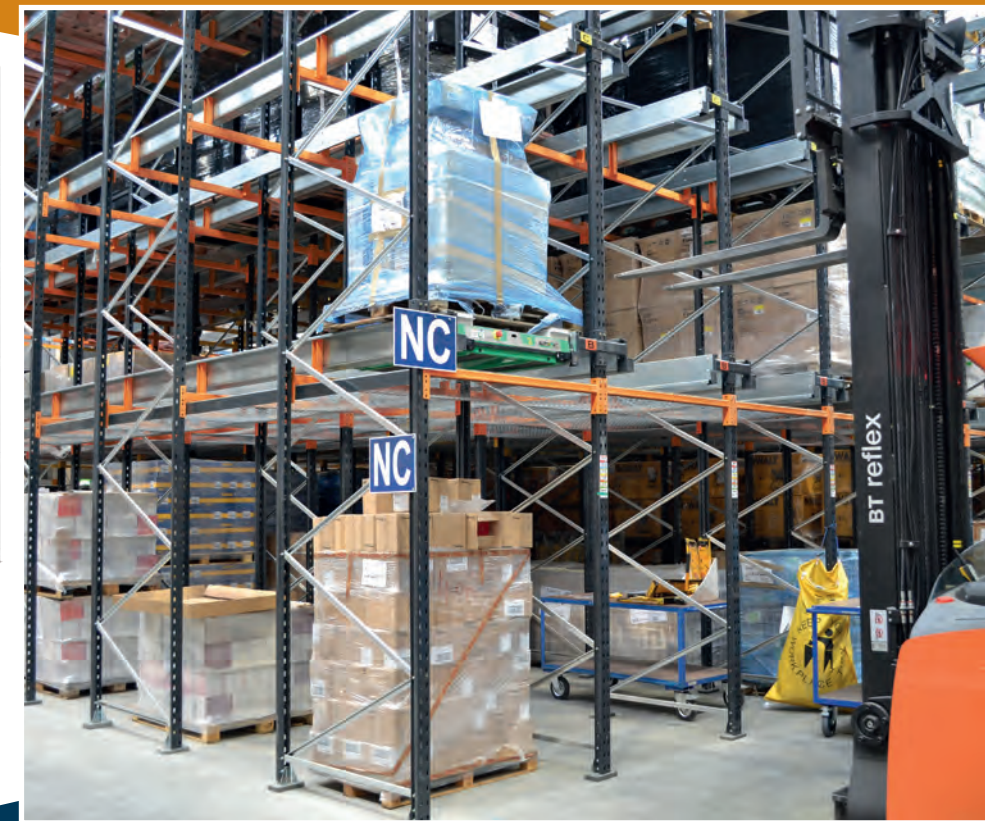
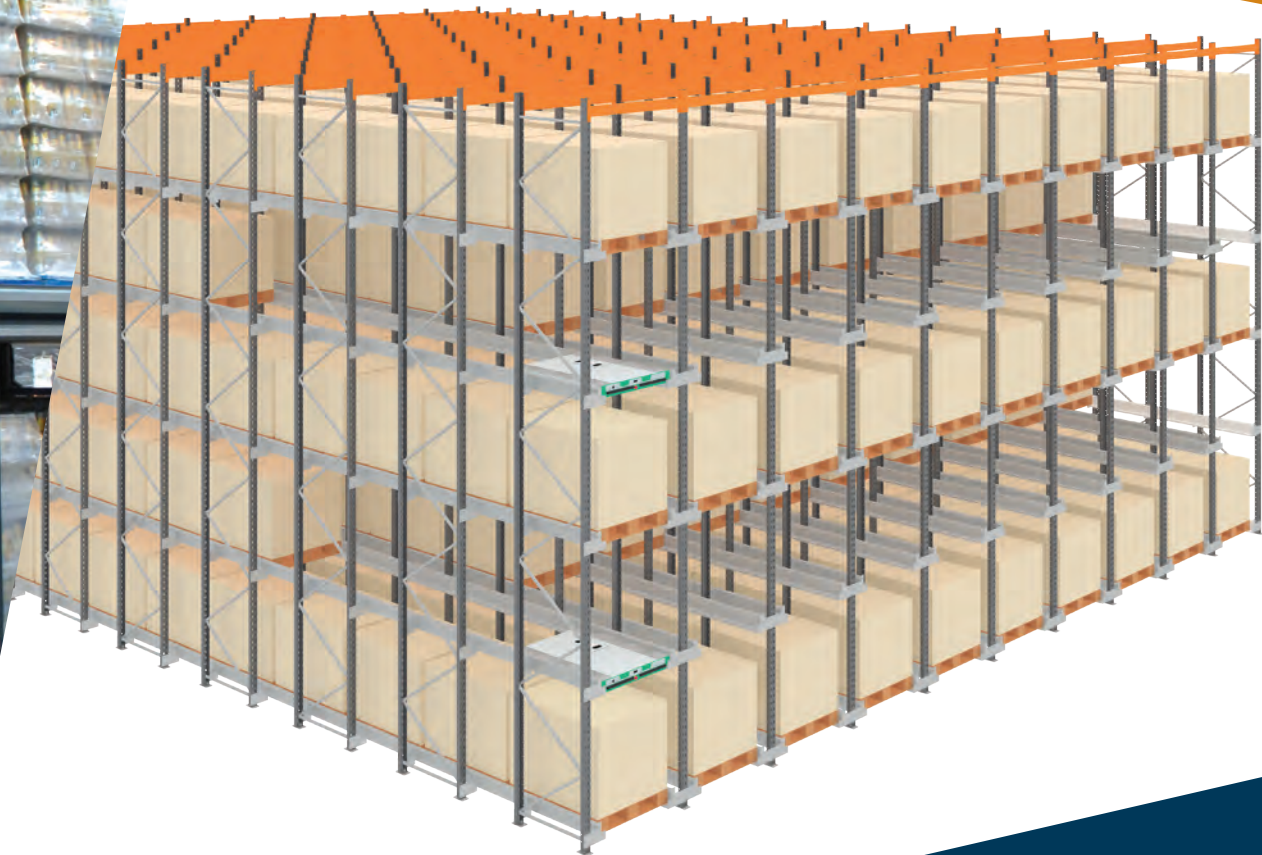
- Drive-in racking provides a high-density storage area. This increases capacity by 60-80% (when compared to conventional "aisle" racking).
- Pallets are stored on guide rails so forklift trucks can enter "storage lanes", in order to deposit and retrieve loads.
- Access can be from one end (the true 'drive-in' configuration) or from both ends ('drive-through', for improved stock rotation).
- A safe and efficient solution for fragile or unstable loads. Loads are stacked individually, rather than on top of each other.
- Ideal for optimum space utilisation.
- Sprinkler systems can be incorporated into the racking structure.





PALLET SHUTTLE

- Can work either as FIFO or as LIFO, so it is a highly efficient alternative to Drive-In, Push Back or Pallet Live storage.
- Features guide/support rails which run the depth of the rack structure on which an automated battery powered shuttle travels.
- Pallets are loaded onto the shuttle at the front of the lane, which transports the pallet down to the other end (placing the new load at a predetermined distance from previous pallets), before returning to the start face.
- The shuttle movements are sent via the radio remote controller: allowing the forklift truck and driver to be released to other tasks while the shuttle operates.
- The shuttle is easily moved between lanes by a standard fork lift truck.





Full width roller accepts mixed pallet sizes and can accommodate up to 10 pallets deep.



Carts interlock to prevent jamming and to control pallet descent. Accommodates up to 6 pallets deep.

PUSH BACK

- Push-back racking is amongst the most space and time-efficient pallet storage systems available.
- The pallets are loaded and unloaded from the same aisle reducing truck travel distances and improving efficiency.
- Pallets are loaded in sequence onto roller beds or wheeled carriers and are pushed back along inclines to utilise the full depth of the racking.
- When a load is retrieved the remaining pallets roll forward into position at the picking face.
- Selectivity is 'first-in, last-out'.



Pallets are loaded onto wheeled carts or rollers and are pushed back along inclined beds. When a load is retrieved the remaining pallets roll forward into position at the picking face.



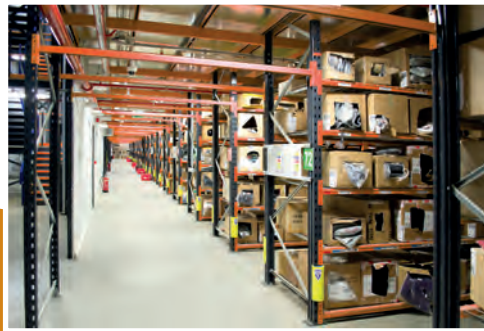
PALLET LIVE

- High capacity system; ideal for storing perishable goods with high rotation, as well as high consumption goods with a continuous flow.
- Working on a first in, first out basis, dynamic live storage provides automatic stock rotation.
- Pallets are loaded onto dedicated lanes of inclined gravity rollers, when a load is taken from the picking face, the next pallet rolls into position.
- Pallet separators and speed controllers regulate pallet movement down the incline.
- Requires only two fork truck aisles; one for loading and one for picking.



CARTON LIVE

- Manual, hand-loaded Carton Live offers 'first-in, first-out' storage; ideal for areas handling and using fast moving product lines.
- Inclined trays of roller tracks allow goods to roll down dedicated lanes within the trays, from the loading to the picking face.
- Both the size and number of rollers within the trays, (and the load capacity of the support frames), are tailored to the size and weight of the items stored.



PICK TOWERS

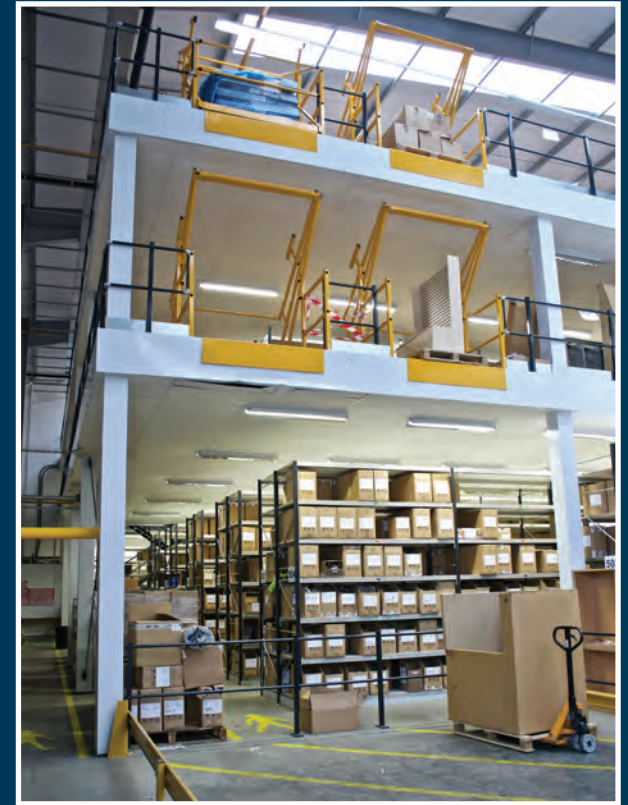
- Pick Towers are tiered pallet racking or shelving structures that are designed to meet two key goals – increasing picking efficiency and maximising storage capacity. A ground plus 3 level pick tower can increase storage capacity by 300% in the same footprint or could reduce a new build by up to 75% in size.
- Installing a pick tower allows you to maximise your building capacity to either create more SKU (Stock Keeping Unit) capacity or create valuable space for departments within your operation.
- Can be designed to store single SKU's, full cartons, pallets or a combination.
- Pick tower can easily incorporate conveyor solutions and a variety of picking systems (including voice picking and pick to light), all of which can increase pick rate.
- The modular design of the pick towers allows for easy integration of other services and utilities; such as fire protection, ventilation, sprinklers, sensor operated lighting, pallet gates and tote lifts within the structure.

MEZZANINE FLOORS

Mezzanine floors are being used more and more in warehouse and distribution centres to make the most of valuable unused space for general storage, and to support automated material handling equipment.

It creates invaluable extra floor space; increasing the amount of space available.

It can be as small or as large as you like as you like, be one, two or three tiers high, have standard or special staircases, lifts or access gates, handrails or partitioning barriers, wood or steel decking, be totally encased, fitted with lighting and sprinklers. This vast array of options ensures we deliver a solution to meet your exact needs, whether it be a stand alone or integrated requirement.



INTEGRATED SOLUTIONS

Whilst many of our customers require only standard racking configurations, some customers undertake larger and more complex solutions, requiring a wide range of products and services to be sourced, integrated, and installed with the whole process project managed as a one-stop shop.

We employ some of the best people in the industry who will work with you, to create customer-oriented solutions for a diverse range of applications. As a result, you receive the perfect storage system for your individual requirements.

By utilising our pallet racking, shelving, tiered-structures and mezzanine floors and integrating them with conveyor, sortation and picking systems; we can deliver tailored solutions that meet the unique needs of our customers.



SPECIALISED RACKING

The versatility of Link's racking and storage equipment means that large, bulky or simply awkward to store items can be accommodated using the most accessible and space-efficient methods.

With standard components used in a novel way, or by utilising specialised 'bespoke' accessories, (specified and manufactured to a customer's particular requirement), Link51's expertise in creative storage design means there is always a cost and space-effective solution to what can appear to be the most awkward of storage problems.



MAINTAINING RACK SAFETY IS NOT JUST GOOD WAREHOUSE PRACTICE, IT IS A LEGAL OBLIGATION!

Employers are legally required to maintain their work equipment, including all pallet racking, under the Provision and use of Work Equipment loss of stock, or Workplace (Health, Safety and Welfare) Regulations of 1992. Inspections should be carried out annually in accordance with SEMA Guidelines.

Our certified SEMA trained SARI (SEMA approved racking inspector) inspectors, are recognised by the HSE and offer a comprehensive and cost effective way to keep your warehouse safe and compliant, whatever the make of racking installed.

There are 3 types of inspections available in the market today. We provide the best and most comprehensive out of the 3, which is a SARI report, plus a comprehensive materials list (MTO List). Remember, a basic damage only report does not satisfy the HSE requirements for the annual inspection

After inspecting your racking system, our engineers will provide you with an easy to understand report, which fully outlines the status of all areas of your storage system, using a simple red, amber and green colour coding system. This explains the severity of any damage and lays out recommendations for the repair work required. Our inspectors will also suggest ways to avoid similar issues occurring in the future.

To help you keep on top of your inspection needs, we offer a range of maintenance plans, with additional training benefits, to meet your short and long term requirements.

Bronze Package

One Annual SEMA Approved Rack Inspection, which includes a detailed damage report

You'll receive an annual reminder to help you keep in line with HSE regulations

Silver Package

Two yearly annual inspections with price guarantee*

One free space on our in-house Rack Safety Awareness Training

10% discount on a Rack Safety Awareness course at your site

Gold Package

Three yearly annual inspections with price guarantee*

Two free spaces on our in-house Rack Safety Awareness Training

25% discount on a Rack Safety Awareness course at your site

Take an additional 10% off any remedial work highlighted during inspection**

Platinum Package

Three yearly annual inspections with price guarantee*

Three free spaces on our in house Rack Safety Awareness Training

One Rack Safety Awareness Course at your site, for up to 6 delegates

Take an additional 15% off any remedial work highlighted during inspection**

*price guaranteed for term of contract, as long as no significant amount of racking has been added to your current system **subject to product availability

Do you have multiple sites across the UK that need pallet inspection services?

We are here to help! We have vast experience in working with large corporations, to ensure alignment with up to date inspections and training. Whatever you need, Link51 can provide!

Please call us for a quote, or email inspections-uk@whittan.com

Link51

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