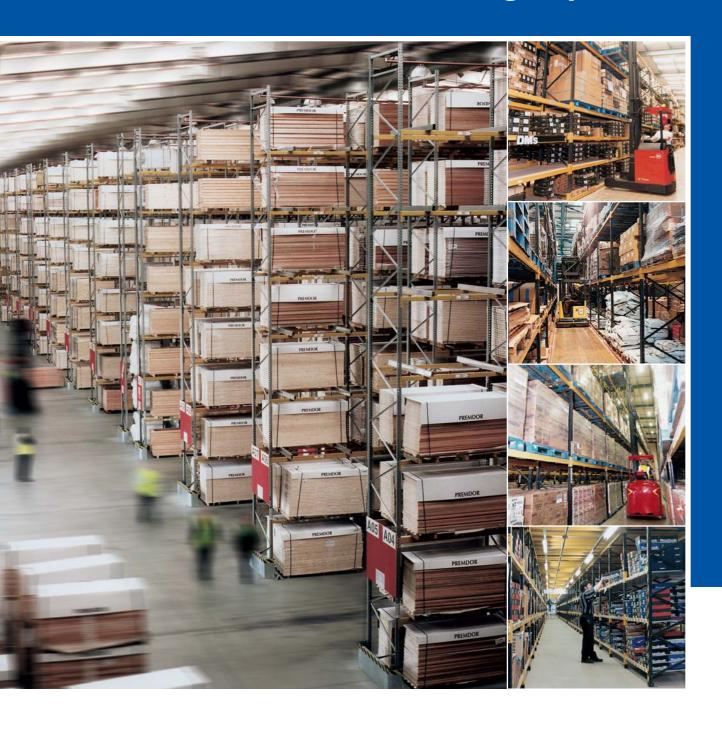
XL pallet racking

& storage systems









Founded in 1951, Link 51 has evolved to become a leading UK-based manufacturer of racking & storage systems, with a reputation for quality products and service placing it at the forefront of the industry.



Certificate No. FM 00940

Ouality you can trust -Link 51 Pallet Racking Systems products are designed, manufactured and installed under a quality management system conforming to the International Quality Standard BSEN ISO 9001: 1994 and Quality Assessment Schedule (QAS) 2000 Category A.



Link 51 is a founder member company of SEMA (Storage Equipment Manufacturers Association) the UK's national trade association for the storage equipment industry.

Link 51 conforms to SEMA 'industry standard' codes of practice covering all aspects of design, installation and health and safety practice relating to the supply of new equipment.



Link 51 is a member of F.E.M. The European Federation
of Materials Handling
Manufacturers - a trade
confederation concerned with
European harmonisation of
design standards and
guidance in the use of storage
and handling equipment.

Link 51 is involved in F.E.M.'s initiatives for furthering product development and safety within the industry.



pallet racking

and storage solutions

Link 51 Pallet Racking Systems 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.

Link 51's manufacturing facilities at Telford operate production techniques which are amongst the most efficient in the industry.

As part of the company's commitment to a programme of continuous improvement, integrated information technology and manufacturing systems were recently implemented to enhance the quality of product and service.

Link 51's strength also lies in its people, and highly experienced design, technical, manufacturing and administrative personnel aim to ensure the success of every storage & handling project.

Link 51 is part of Whittan Storage Systems, manufactures an extensive range of racking, industrial & commercial shelving, lockers and other storage equipment for clients around the world.



High-speed rollforming technology is used in the production of Link 51's XL pallet racking beams.



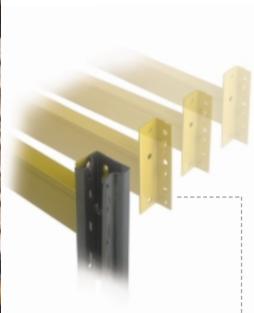
Link 51 installation teams use specialist skills, equipment and techniques to ensure racking is assembled safely and efficiently.

* financial year 1999-2000



adjustable beam

XL pallet racking



Beams can be removed and repositioned when changes in the use of the racking occur. Although XL racking is adjustable, once the beams are slotted into position in the frame uprights, an interlocking structure of great strength and rigidity is maintained.

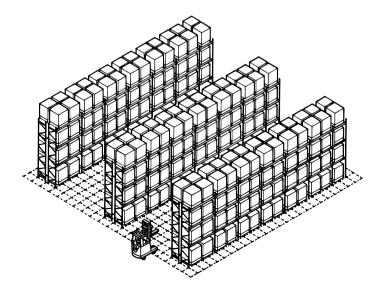
Easily installed, cost-effective and versatile, adjustable beam racking is the most widely used of pallet storage systems and allows direct access to each pallet stored.

With adjustable beams, racking can be re-configured to accommodate changes in the type of goods stored and wide aisles allow access by all types of truck, making specialised handling equipment unnecessary.

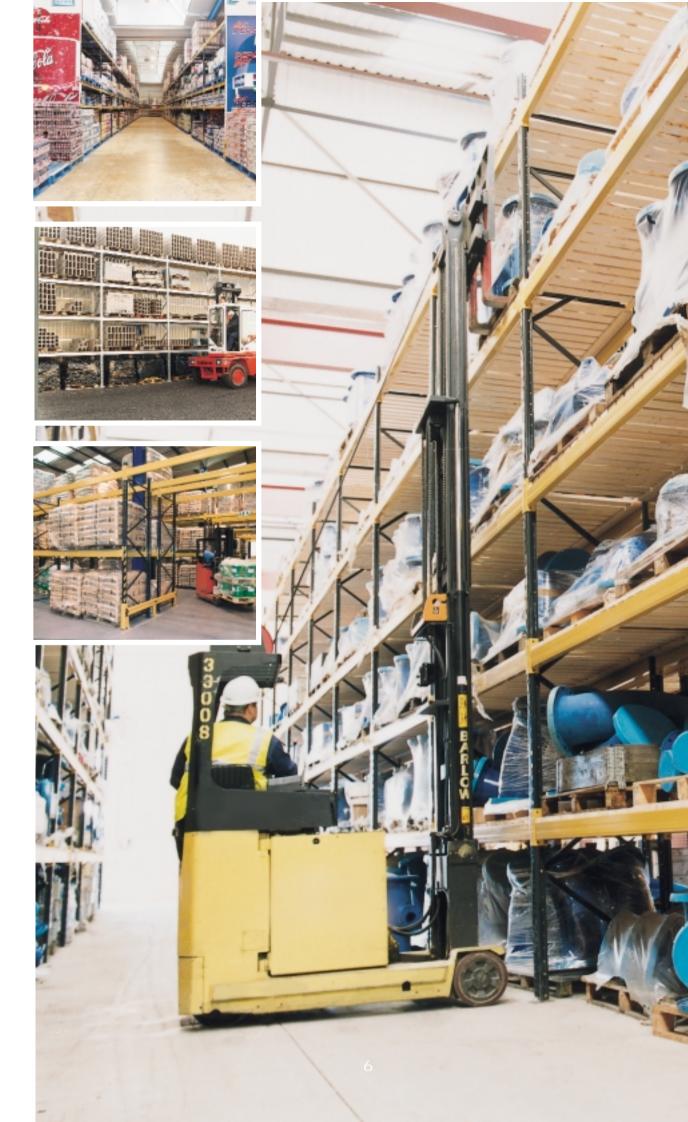
Link 51's XL pallet racking, renowned for its structural strength, reliability, safety and easy assembly, has been developed over many years to become one of the most widely used of racking systems.

Features check list

Space utilisation of floor area	√	✓	√		
Utilisation of cubic storage space	/	1	1		
Access to individual pallet loads	/	/	1	1	/
Speed of access & throughput	/	\	\		
Efficiency in stock rotation	/	√	√		
Efficiency in stock control	✓	✓	✓	✓	
Efficiency in stock control Specialised handling equipment	✓ Nor	ne re	equi	✓ red	
	Nor	ne re	✓ equi	red /	✓
Specialised handling equipment	Nor 🗸	ne re	equi	red /	✓ ✓



Picture credits:
main picture left:
W. Morrison
XL adjustable beam racking
far left, top to bottom:
Parcelforce
XL adjustable beam racking
Yeo Valley Dairy
XL adjustable beam racking
Allied Pickford
XL adjustable beam racking



adjustable beam

XL pallet racking

The versatility of adjustable XL pallet racking, and the experience of Link 51's designers, allows warehouse and storage layouts to be supplied to customers precise requirements.

By selecting from a wide range of standard frame upright and beam sizes and duties XL racking can be configured to meet precise criteria, in terms of load volume and weight, accessibility, handling requirements and space utilisation, in the safest, most cost-effective way.

Adjustable XL pallet racking in its standard form is suited to the storage of goods and materials of many different kinds, but for increased versatility Link 51 provides a range of practical add-on accessories (shown on pages 28-29) to make the storage and handling of goods even easier.



Adjustable pallet racking can incorporate space-efficient 'tunnel' or 'bridging bays' positioned to improve access for lift trucks throughout the warehouse.



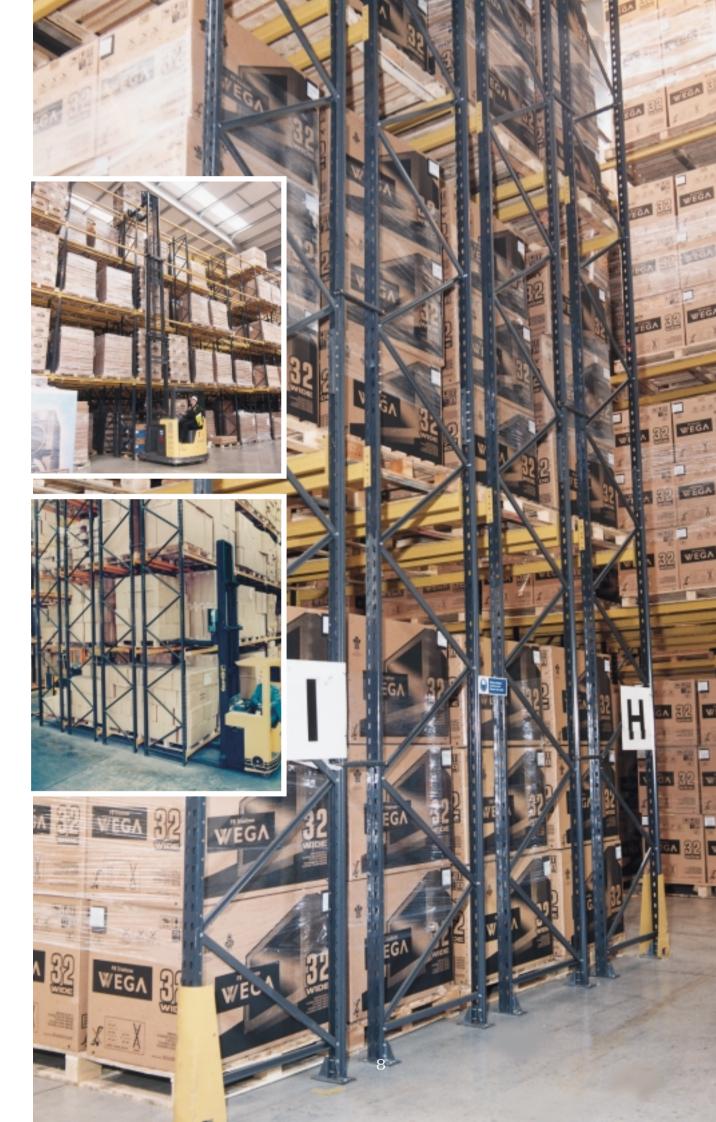
To protect racking against accidental damage and to improve health and safety practices, Safeguard upright protectors and barrier rails should be fitted.

this page, top left:
Griggs Footwear
XL adjustable beam racking
this page, left:
Swan Paper Mill
XL adjustable beam racking
opposite page, main picture:
Drainage Systems
XL adjustable beam racking
opposite page, far left
top to bottom:
Bestway cash & carry
XL adjustable beam racking

Picture credits

Drainage Systems
XL racking, galvanised finish
for outdoor use

United Freight Distribution XL adjustable beam racking



double-deep

XL pallet racking

A variant on standard adjustable beam racking, Link 51 XL Double-deep pallet racking, as the name implies, allows pallets to be stored two deep but still 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.

Although the speed of access to all of the pallet positions is restricted, with an efficient stock management system this can easily be compensated for to take advantage of the benefits of more storage space.

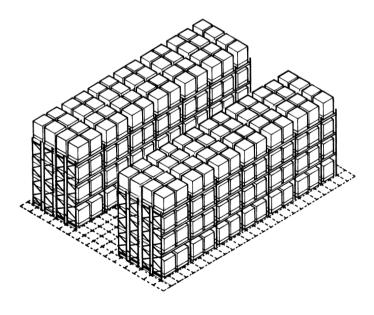


Lift trucks with telescopic forks are used to make efficient use of double-depth

pallet racking.

Features check list

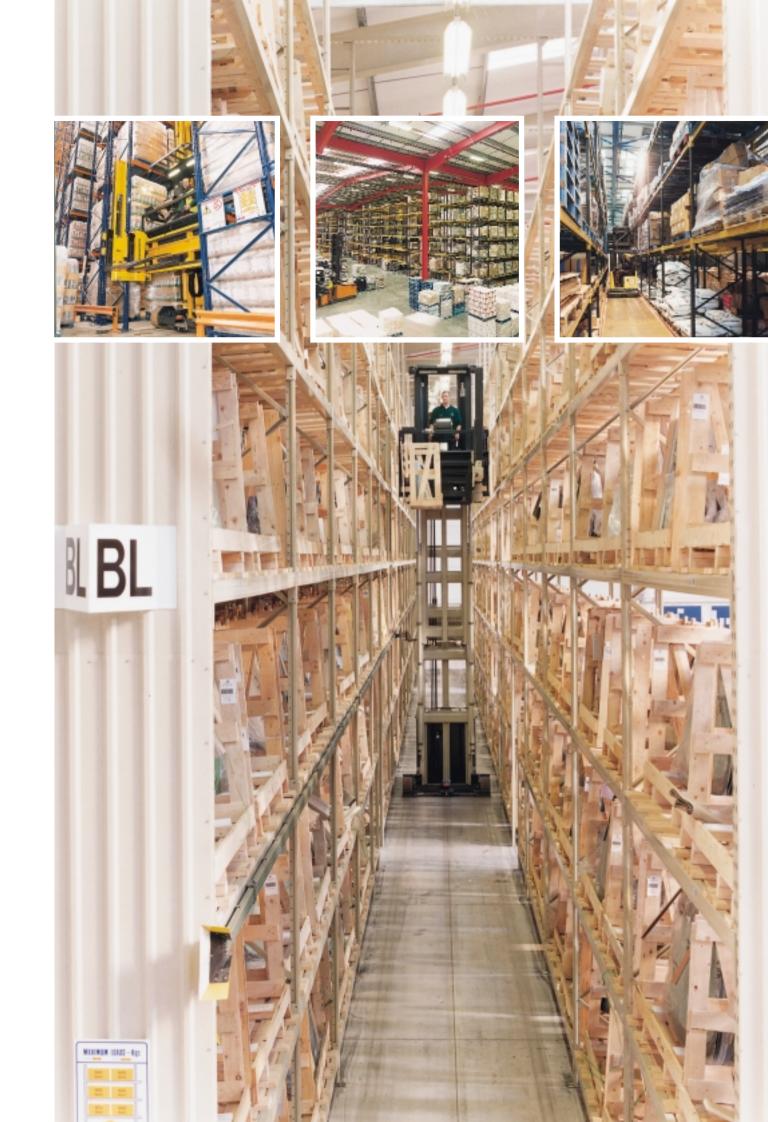
Space utilisation of floor area	/ / / /
Utilisation of cubic storage space	111
Access to individual pallet loads	/ / /
Speed of access & throughput	/ / /
Efficiency in stock rotation	///
Efficiency in stock control	/ / /
Specialised handling equipment	Required
Ease of re-location	/ / /
Ease & speed of installation	111
Adjustability of beam positions	////



Picture credits: main picture left: Leggett Freightways XL Double-deep racking far left, top to bottom:

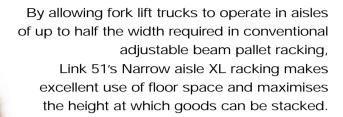
Leggett Freightways XL Double-deep racking

Hozelock XL Double-deep racking



narrow ailse

XL pallet racking

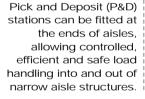


Using specialised lift trucks in either 'man-down' or 'man-up' variants, narrow aisle racking is precision designed for safe, efficient load handling within the tight confines of these space-efficient aisles.

Fitted with guidance rails or wires at floor level, trucks are precisely guided into position, thereby improving safety, whilst minimising the incidence of accidental damage to racking and improving the speed and accuracy of load handling.

Features check list

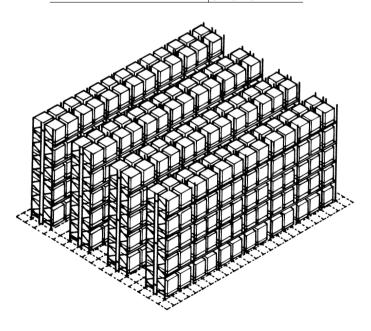
Space utilisation of floor area	111
Utilisation of cubic storage space	////
Access to individual pallet loads	////
Speed of access & throughput	111
Efficiency in stock rotation	111
Efficiency in stock control	////
Specialised handling equipment	Dedicated trucks
Ease of re-location	/ / /
Ease & speed of installation	///
Adjustability of beam positions	///





Top, left-right:
Eddie Stobart
XL Narrow aisle racking
McGregor Cory
XL Narrow aisle racking
RHM Frozen Foods
XL Narrow aisle racking
Above:

Carlton International XL Narrow aisle racking





very narrow ailse

crane served pallet racking



Very narrow aisle and crane-served high bay racking provides the most space-efficient pallet storage systems of all, with working aisles reduced to the absolute minimum to save floor space and pallets stored at heights generally up to 30 metres.

Providing the key central store as part of an integrated warehouse operation, these racking systems are served by order picking stacker cranes providing fast throughput and high accuracy in storage and retrieval. Crane operation can be either fixed path or changing aisle, using curve travelling equipment or transfer cars.

Link 51 can bring a wealth of expertise to the implementation of these complex and often technically challenging warehouse systems, not only through the high manufactured tolerances, reliability and structural integrity of XL pallet racking, but also in the skills of our design, production and installation personnel.

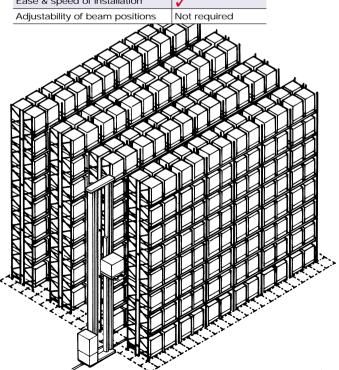


Features check list





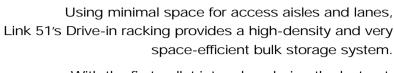
Picture credits: main picture far left: RS Components XL Pallet racking Left, from top: Muller Dairy XL Pallet racking Glaxo Welcome XL Pallet racking Chivas Regal XL Pallet racking





drive-in

XL pallet racking



With the first pallet into a lane being the last out, stock selectivity is restricted, but when loads are delivered and dispatched in batches, this is not a difficulty.

Pallets are stored on runners in the depth of the racking and trucks enter to deposit or retrieve loads.

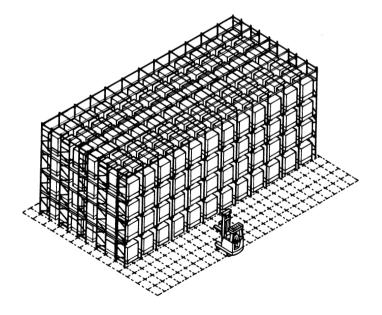
For maximum utilisation of both cubic and floor space by providing pallet storage at up to 11 metres, Link 51's High Drive-in system has unsurpassed structural strength and stability, with single-section uprights and rails and double bolt rail fixing into each upright.



Guide Rails, which also protect the racking, can be fitted to ensure correct truck positioning.



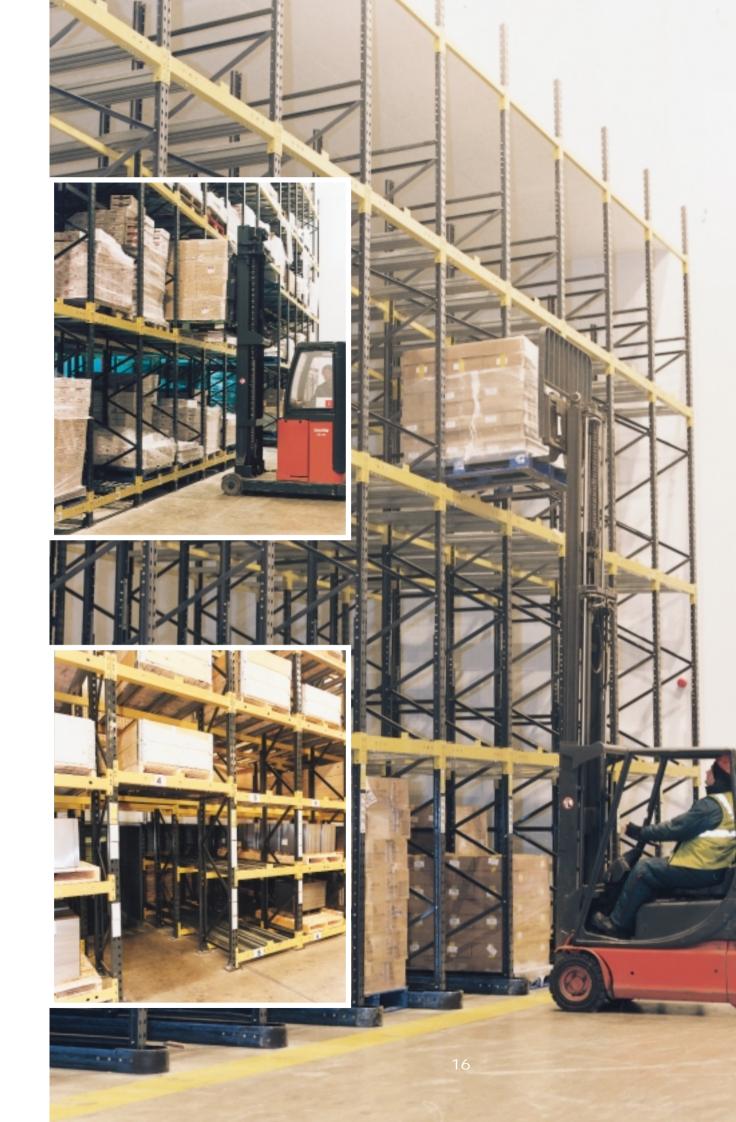
Space utilisation of floor area	1111
Utilisation of cubic storage space	1 1 1 1 1
Access to individual pallet loads	✓
Speed of access & throughput	√ √
Efficiency in stock rotation	/ /
Efficiency in stock control	///
Specialised handling equipment	None required
Ease of re-location	///
Ease & speed of installation	/ / /
Adjustability of beam positions	✓



Picture credits: main picture left: Bulmers XL Drive-In racking Top, left-right:

Chris Goddard Warehousing XL Drive-In racking

Office World High Drive-In racking Highland Spring High Drive-In racking



push-back

dynamic pallet racking

Effectively utilising floor and cubic space, Link 51's dynamic Push-back racking is amongst the most space and time-efficient pallet storage systems available.

Pallets are loaded in sequence onto wheeled carriers of differing heights and are pushed back along inclined steel guide channels to utilise the full depth of the racking. Pallets can be stored up to four deep and when a load is retrieved the remaining pallets roll forward into position at the picking face.

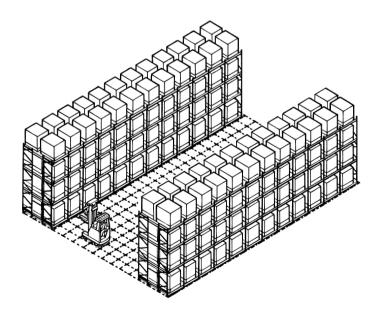
Selectivity is 'first-in, last-out' and with each product having a dedicated lane, dynamic Push-back racking is particularly useful in marshalling areas, and for bulk storage and handling.



Pairs of carriers, slotted into guide channels, allow pallet movement.

Features check list

Space utilisation of floor area	1 1 1 1 1
Utilisation of cubic storage space	111
Access to individual pallet loads	/ / /
Speed of access & throughput	√ √
Efficiency in stock rotation	111
Efficiency in stock control	/ /
Specialised handling equipment	None required
Ease of re-location	✓
Ease & speed of installation	/ /
Adjustability of beam positions	Not required





Indicator 'buttons' in the front beam show how many pallets are stored in the lane at any time.

Picture credits: main picture left: Norpak XL Push-back racking far left, upper:

Sidoli Ice Cream XL Push-back racking

far left, lower

Bisley Office Equipment XL Push-back racking, incorporating a pedestrian walkway



powered

mobile pallet racking

Link 51's XL racking is easily configured for space-saving mobile storage.

With the racking mounted on mobile chassis which move along guide tracks set into the floor, the floor space for only one 'moving' operating aisle is required to access all pallet locations.

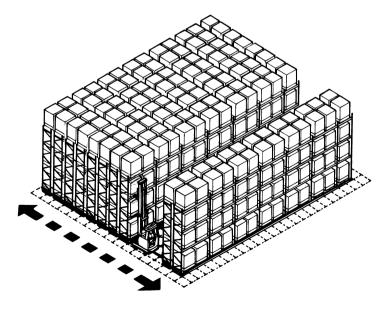
This space-saving design makes mobile pallet racking particularly suited to cold stores, as the maximum amount of space can be utilised for storage.



Control ranges from individual chassis to computerised systems, with safety features incorporated to prevent accidental operation.

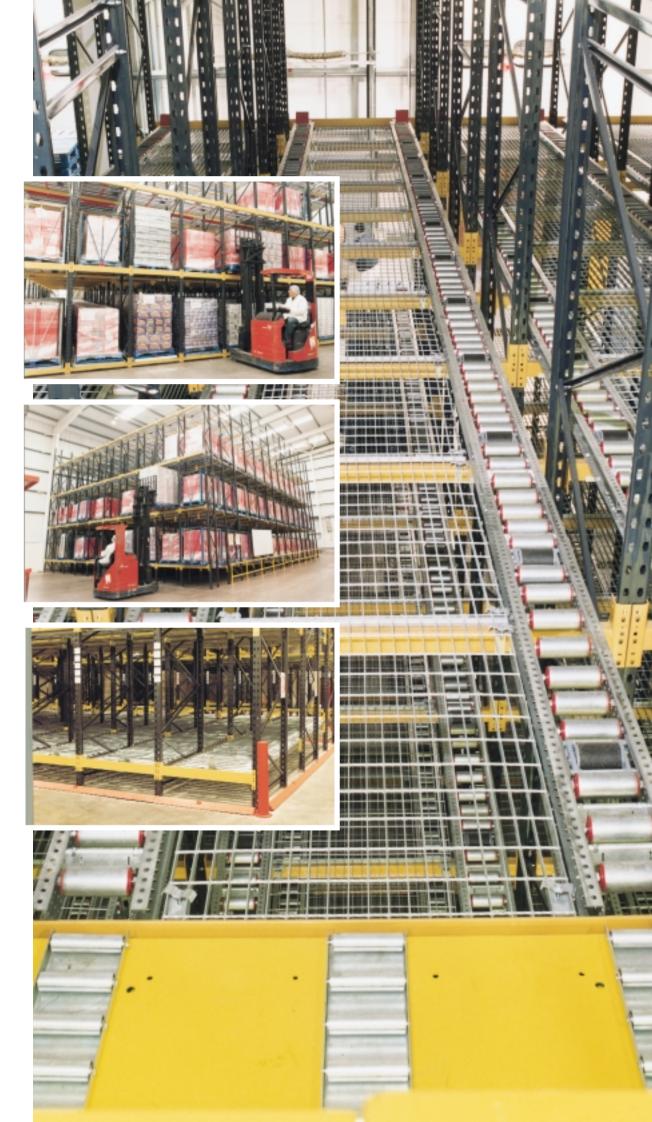
Features check list

Space utilisation of floor area	√	√	/	/	√
Utilisation of cubic storage space	1	1	1	1	1
Access to individual pallet loads	/	1	1	1	/
Speed of access & throughput	√				
Efficiency in stock rotation	1	/			
Efficiency in stock control	√	/	\	\	
Specialised handling equipment	Nor	ne re	equi	red	
Ease of re-location	/	/			
Ease & speed of installation	1	1			
Adjustability of beam positions	√	1	1		



Picture credits: main picture left: Hazlewood Frozen Foods XL Mobile racking

Top, left-right: Muller Dairy XL Mobile racking Brake Brothers Foods XL Mobile racking



live storage

dynamic pallet racking

Pallets are loaded onto dedicated lanes of inclined gravity rollers which are set at a fixed gradient. When a load is taken from the picking face, the next pallet rolls into position, with replenishment stock loaded at the opposite (upper) end of the lane.

Pallet movement is regulated by brakes and speed controllers fitted within the roller tracks.

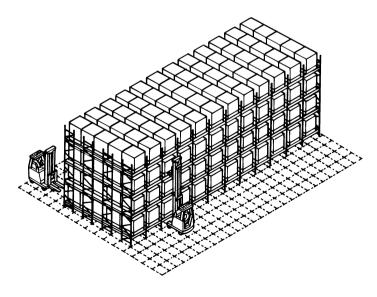
Working on a first-in, first-out basis, Dynamic Live storage racking provides extremely high levels of storage density in a given area, and provides automatic stock rotation, with the minimum of fork lift truck movements required to handle the flow of goods.



With pallet separators and brakes fitted, each load is segregated within the lane, preventing pressure accumulation or crushing.

Features check list

Space utilisation of floor area	√	√	√	√	✓
Utilisation of cubic storage space	1	1	1	1	
Access to individual pallet loads	/	1	1		
Speed of access & throughput	/	1	1	1	
Efficiency in stock rotation	/	1	1	1	√
Efficiency in stock control	1	1	1	1	√
Specialised handling equipment	Not	rec	uire	d	
Ease of re-location	/				
Ease & speed of installation	/				
Adjustability of beam positions	Not	t rec	uire	d d	
-J					



Picture credits:
main picture left:
Muller Dairy
XL Pallet live storage racking
Left, from top:
Sidoli Ice Cream
XL Pallet live storage racking
Sidoli Ice Cream
XL Pallet live storage racking
Rowallon Creamery
XL Pallet live storage racking



live storage

carton flow racking

Carton live storage or 'flow racking' operates on the same principle as pallet live storage, but is used for stock which needs to be hand-loaded and picked.

Inclined trays of roller tracks, set at levels in the storage bays, allow goods to roll under gravity down dedicated lanes within the trays, from the loading to the picking face.

By using Link 51 live storage systems, order picking times are reduced and errors minimised, as not only are items presented precisely at the picking face, but also effective management of the throughput and stock levels of goods can be easily maintained.

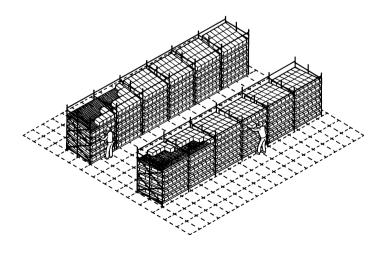
Carton flow racking provides an excellent, labour and space-efficient method of 'first-in, first-out' storage, particularly in areas handling and using fast moving product lines, for example assembly, packing and despatch.



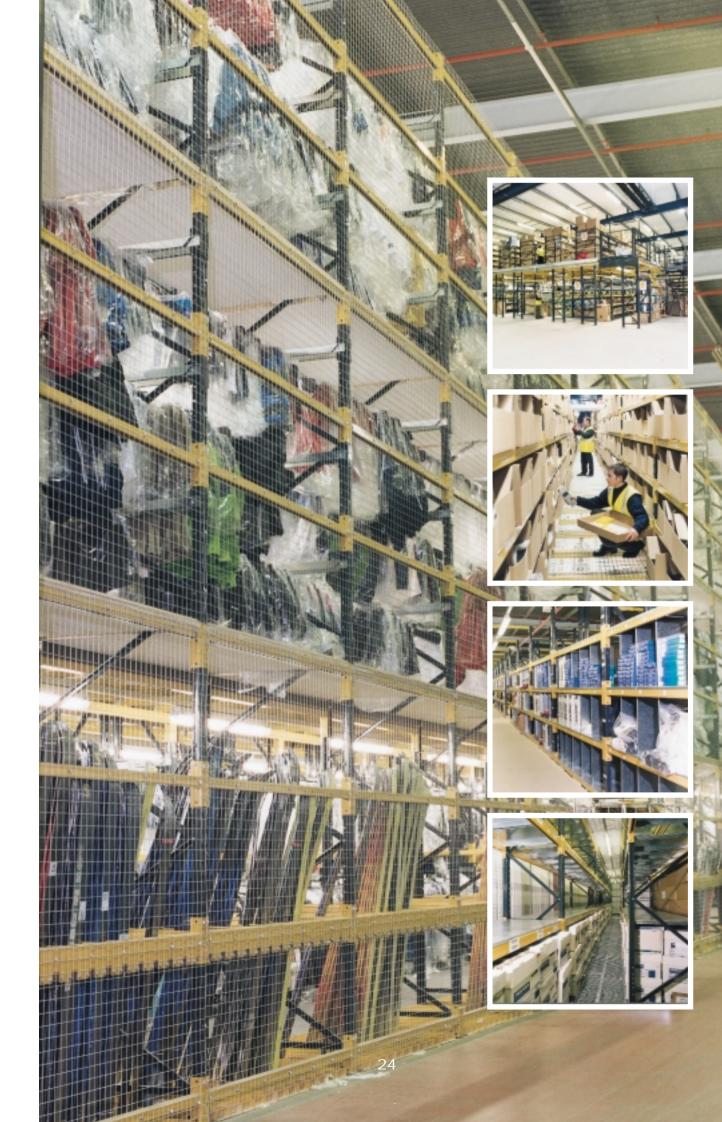
The angle of incline of the roller trays, the size and number of rollers within the trays, and the load capacity of the support frames, are tailored to the size and weight of the items to be carried.

Features check list

Space utilisation of floor area	1	1	1		
Utilisation of cubic storage space	✓	1			
Access to individual loads	1	/	1	1	
Speed of access & throughput	1	1	1	1	√
Efficiency in stock rotation	1	\	\	1	√
Efficiency in stock control	✓	\	√	√	✓
Specialised handling equipment	Hai	nd Id	oade	ed	
Ease of re-location	1	1	1		
Ease & speed of installation	/	√	√		



Picture credits:
main picture left:
Technicolour
Carton live storage racking
Top, left-right:
JJB Sports
Carton live storage racking
AP Lockhead
Carton live storage racking
AP Lockhead
Carton live storage racking
Carton live storage racking



storage platforms

and XL shelving

Create more storage space without increasing floor space - by building upwards!

Link 51's raised platforms and 'tiered' shelving systems provide a cost-effective means of utilising the height of a building for storage, thereby effectively doubling the capacity of a given floor area.

With integral walkways, stairs, safety rails and any number of shelf positions, these raised storage structures can be used as finished goods or component stores and also for order picking, where powered or gravity Conveyors can be incorporated to move the selected goods swiftly through and on to despatch.

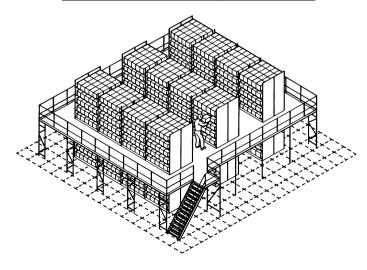
The strength, structural integrity and versatility of these structures is provided by Link 51's XL and Longspan heavy duty shelving ranges which can also be used to create versatile wide-bay open shelving or binning systems in conventional floor-level configurations.



For staff safety and to minimise fire risk, overhead walkways can be constructed from perforated steel planks or steel mesh, for increased light penetration, improved ventilation and efficient sprinkler operation.

Features check list

Space utilisation of floor area	////			
Utilisation of cubic storage space	1111			
Access to individual loads	111			
Speed of access & throughput	/ / /			
Efficiency in stock rotation	1111			
Efficiency in stock control	/ / / / /			
Specialised handling equipment	Hand loaded			
Ease of re-location	Variable			
Ease & speed of installation	Varies on size			



main picture left:
Lillywhites
three-tier storage structure
near left, top to bottom:
Jewson Direct
two-tier shelving
Jewson Direct
two-tier shelving
Lillywhites
XL shelving bin units
Allied Pickfords

three-tier shelving structure



specialised

racking & storage equipment



Whilst providing the ideal means of storing palletised loads, the versatility of Link 51's product range of XL 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, Link 51'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.







Picture credits: opposite page, main picture: Tompkinson Carpets XL carpet storage racking

opposite page, far left, top to bottom:

Gold & Wassel secured storage for plated strip metal coils

Steel Stockholders cantilever Alpha racking, for storing steel bars

cable racking

this page, left, top to bottom:

Forest Furnishings furniture storage with narrow aisle truck access

Lillywhites Segregated storage for skis and other sports equipment

Narrow aisle XL racking, fitted with timber shelves and compartments, for the protective storage of car windscreens and windows

right, top to bottom:

Griggs Footwear
XL racking combined bays,
with pallet positions for bulk
stock above, and shelf levels
for order picking below

Lillywhites XL shelving, adapted to take garment hanging rails for the bulk storage of sports and leisure wear







1 Run Spacer

Used to maintain a fixed parallel safety clearance between double sided runs of racking.



2 Bolted Joining Unit

Connects frames vertically, and ensures strength is fully maintained at the joints. Allows beams to be located across the joint.



3 Wall Tie

Allows frames to be fixed to a wall for additional stability, and maintains a safety clearance between the racking and the wall.



4 Frame Footplates

Essential for stability, allow racking to be bolted to the floor. Four duties available, to complement the four XL frame types.



5 Pallet Foot Support

Used in pairs across the beams, to support box or caged pallets which have corner posts, skids or feet.



6 Drum Chock

Locates on the front beam, and cradles one end of a drum or barrel. Prevents lateral rolling of drums or cylindrical items.



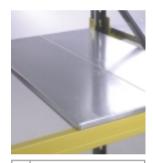
7 Coil Cradle

Spans beams to provide location and support for coiled materials - metal strip, for example - or other cylindrical items.



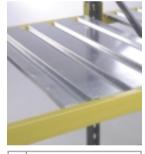
8 Fork Spacer

Used in pairs across beams, to provide fork entry spaces. Provides support for and access to non-palletised loads.



9 Steel Shelf Panel

Panels span a pair of beams to provide wide-bay steel shelving. Made from pre-galvanised steel.



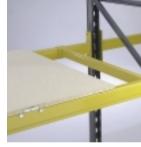
10 Profile Shelf Panel

Provides wide-bay steel shelving. The corrugated profile enhances loading capability. Made from pre-galvanised steel.



11 Shelf Support

Fitted to stepped beams, to provide additional support and greater loading capacity for chipboard shelving.



12 Shelf Support

Fitted to box beams, provides support and greater load capacity for shelving. Cladding location bracket also shown.



13 Upright Protectors

Protect the lower section of XL uprights against fork truck collision damage. Available in 'U'-shaped or right-angled configuration.



14 Rack End Protector

Provides protection to the ends of racking. Available also as a barrier rail (with support posts) to protect equipment and walkways.



15 Racking Signs

Clearly display caution and loading/safety information relating to racking usage, and conform with SEMA guidelines.



16 Guide Rails

Allow safe and accurate guidance for trucks operating within racking, particularly in drive-in or narrow aisle applications.

racking accessories



29

adjacent to racking.

handling between fixed aisle

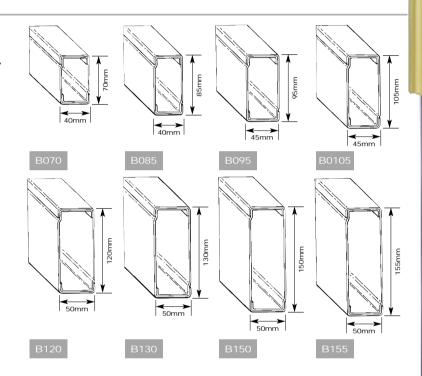
and other trucks.

Beams for all applications

Box beams

Manufactured from a pair of interlocking 'C' sections, for strength and efficient material utilisation.

The XL pallet racking system includes a range of eight pallet support beams, with steel sections of varying thickness, allowing the design of racking systems which cater for the widest range of load requirements, safely and cost-effectively.

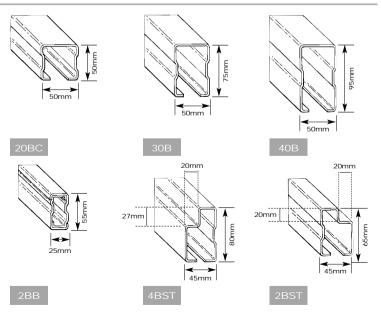


Shelving & open beams

'Stepped' shelving beams (2BST & 4BST) are used to support steel shelf panels, chipboard or other shelving material.

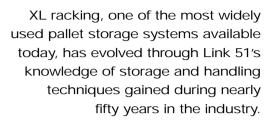
2BB, 20BC, 30B & 40B beams provide a wider range of loading capabilities for shelf support.

Manufactured from formed steel sections.



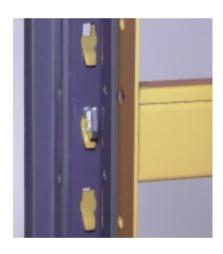
XL pallet racking

system components



Designed for strength, durability, ease of assembly and operational reliability, the XL system comprises a comprehensive choice of frames and pallet support beams which can be precisely selected and combined to meet the load requirements of any heavy-duty storage application.

Beam connectors engage with slots in the upright, locking the beams securely to the frame. Safety locking pins are fitted to help prevent accidental dislodgement of beams during use.



Colours



Standard colour for frames & some accessories is Graphite Grey (above). Standard colour for beams & some accessories is High Visibility Yellow (below).

XL pallet racking components are phosphate pre-treated, then powder coated (with some items wet painted) and stove enamelled to give a glossy, durable paint finish.

Other RAL or special 'house' colours are available on request, as is galvanised finish.

Frames

Frames are of bolted construction, for easier installation and replacement of damaged components.

A wide range of upright duties are available, offering versatility in matching load criteria.











Pallet Racking Systems

Link 51 (Storage Products)

Link House, Halesfield 6 Telford, Shropshire England TF7 4LN

Telephone: 0800 515 600
Fax: 01952 680 352
E-mail: racking@link51.co.uk
Web: www.link51.co.uk

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However, Link 51 reserves the right to make any necessary changes, in line with product development and improvement.

Although all reasonable care has been taken to make it as complete and accurate as possible, no liability can be accepted for any inaccuracies or omissions.

Colour swatches offer an approximate guide only.





