

صناعة وطنية ..
بمعايير عالمية





Showroom 1 - Alkazan street, Riyadh Branch



Showroom 3 - Jeddah Branch



Showroom 3 - Dammam Branch

Founded Plant

The National shelves factory “ RFUFCO COMPANY ” was founded in 2000. Its activity is based on metal shelves that provided that needs of processing by shelves with its different commercial and governmental with global quality.

Since the Establishment of the company our aim is the sincerity and honestly in dealing with our respected customers, this what always makes us an the best choice to provide your request. This the ideal choice, which we got it from the big companies and government department excited us to develop of production lines through our factory which is located in the Second Industrial City - Riyadh.

Our factory is equiped with the latest technologies through adopting on the automation of the machines (Roll Forming) and robotic machines. These machines ensure not to include any manufacturing flaw in the product. Things that makes us pioneers in processing warehouse and shops that we provide professional team, all equipment and the accessories for installation the work in a way that we can provide the different needs our valued customers.

Our Factory

Our Vision:

To be the pioneers in finding the best solutions for storage and display system in warehouse and shops around the arabic world.

Values:

Quality: producing with high precision and professionalism without any production flaw..

Credebility: We fulfill our promises in applying for our valued.

Customers: Focusing on customers, our clients are our partners in the success

Innovation: Continuous developing for our products and motivate our employees to be creative.

Our Mission:

Rfufco Company creates the best solutions for storage and display system in warehouse and shops for our valued partners in the success of the government and private companies and institutions in Saudi Arabia and the Arab market based on our experience and our professional, qualified and trained staff using the latest machinery production lines.

According to the highest quality and the requirements of the global storage standards to provide the aspiration of our valued customers.



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Some of Our Rerferences

Advance Machines



High quality products by our new advance machine technology dedicated to modern market.

Strictly control in inspection.

Quality assurance system is divided into every single detail, with control being performed. all the way.

Strictly control in raw material.

Raw material for all products are of good quality and advanced performance, and those for main parts must pass quality inspection before use, so as to lay a solid foundation for protect quality assurance.

Strictly control in production process.

Strict inspection on product quality is throughout the whole process, with each process step requiring self-check and every two sequential process steps requiring mutual-check, to achieve an overall control on new products.

Quality Certificate (TUV)



FAHSS/TÜV NORD Saudi Arabia INSPECTION CERTIFICATE OF ASSESSMENT



NO. 201728

AL SOFOUF ALWATANIYA FACTORY CO. (RFUFCO)

P.O. Box 147, Riyadh 11383
Kingdom of Saudi Arabia

WAS TECHNICALLY TESTED AND ASSESSED OF THEIR PRODUCT MANUFACTURING

of
HEAVY DUTY PALLET RACKING STORAGE SYSTEM

LIGHT DUTY SHELF STORAGE SYSTEM

DRIVE-IN PALLET RACKING SYSTEM

MEZZANINE FLOOR STORAGE

and
BOLT FREE SHELVING'S
WITH A

MATERIAL SPECS: JIS G3113 S55C, SPHD Steel Plate

DESIGNED AND MANUFACTURED BY AL SOFOUF ALWATANIYA FACTORY CO. (RFUFCO)

CONFORMS TO THE REQUIREMENTS OF THE STANDARD
EN 15512: 2009

also S.E.M.A. " Code of practice for the design of static racking "

For the specified product specification, mentioned above has been assessed
inspect and tested in according to company product specification;
Company comply the procedure and specification as per Rack Manufacturing Institute
As far as ascertainable this product complied with the applied standards and
void of principal defects that can affect the condition. No restrictions for further safe condition.

Recommendation: Follow the safe working value specified on its company product code.

DATE OF INSPECTION 21-09-2016 DATE NEXT INSPECTION 20-Sep-17

ADDITIONAL SUPPORTING DOCUMENTS

AUTHORISED INSPECTOR: AQEEL AL-DARWISH INSPECTOR: HERMIE B. DERESMA

WARNING:

- 1. This certificate should not be altered or defaced in any way or it will render the Certificate invalid.
- 2. This Certificate is not valid unless authenticated by the FAHSS / Inspection Stamp and Inspector's Signatures.

SIGNATURE:



STAMP

NATIONAL INSPECTION AND TECHNICAL TESTING CO. LTD. (FAHSS / TÜV NORD SAUDI ARABIA) P.O. BOX 10771 JUBAIL 31961
JUBAIL: Tel: (011) 340 7697 / 7698 / 7699 Fax: (011) 340 7699
JEDDAH: Tel: (011) 882 0213 / 814 3436 Fax: (011) 882 0632
RIYADH: Tel: (011) 473 3554 (direct) Fax: (011) 362 0886

EMAIL: info@fahss-tuv.com

FM-IN-122A REV 03.12/02/12

ZERTIFIKAT • CERTIFICATE • 証書 • CERTIFICADO • CERTIFICAT

Quality Products Certificate



Beam Actual Testing



Upright Actual Testing

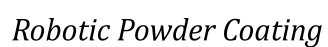
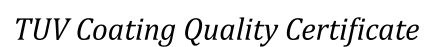
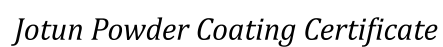
Quality Certificate (TUV)



Welding Quality Actual Testing



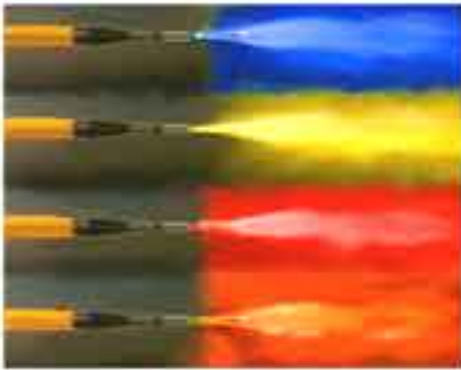
Upright and Beam Actual Testing



Powder Coating Quality

Durability of Robotic powder coating

powder coating is highly-quality finish found on thousand of products you come in contact with each day. Powder coating protects roughest, toughest machinery as well as the household items you depend on daily. It provides a more durable finish than liquid paints can offer, while still providing an attractive finish. Powder coated products are more resistant to diminished coating quality as a result of impact, moisture, chemicals, ultraviolet light, and other extreme weather conditions. In turns, this reduces the risk of scratches, chipping, abrasions, corrosions, fading and other wear issues. Its tough, it looks great And it last as long, long time. In addition to being durable, powder coating is an attractive choice due to enviromental advantages.



Radio-Shuttle Pallet Rack



Radio-Shuttle Pallet Rack

Automatic Shuttle able to transform into an automatic warehouse all the Drive-in racking system, assuring the maximum use of the warehousing, making the facility more productive and efficient, AUTOSAT, powered by an innovative Lithium Ion battery easy to recharge and managed by an interactive radio transmitter, moves goods on pallets into the drive-in channels. AUTOSAT can be placed.

in the appropriate channel by means of a standard fork lift.

STANDARD EQUIPMENT

- Battery on board
- Lithium battery charging station
- Remote Controller
- Remote controller battery charger
- User manuals
- Wooden Box as packaging.



STANDARD FUNCTIONS

- Loading
- Unloading
- Continuous
- Distance between pallets 40 mm up to 150 mm
- AUTOSAT Manual mode



STANDARD FUNCTIONS

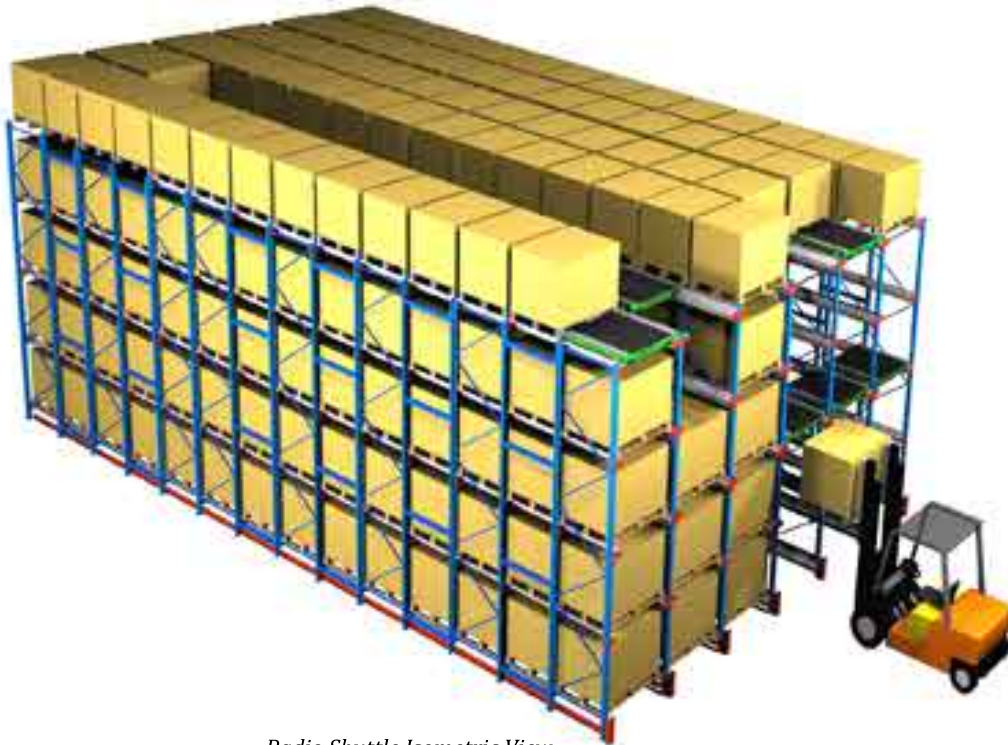
- Pallets rearrange "compacting push"
- Pallets rearrange "compacting pull"
- Un-Collision between AUTOSAT in the same channel
- Stock list: counting pallets
- Multiple Pallets: different depth pallets management in the same channel
- Continuous unloading "plus"



TECHNICAL INFORMATION

- Speed with load on board : 30-33m/min Speed without on board : 63-66m/min
- Working range : 10-12-16 H
- Working temperature ST : From + 5 C up to + 45 C / BZ: from + 4 C up to 30 C
- Colors : chassis RAL lid RAL 7035

Radio-Shuttle Pallet Rack



Radio Shuttle Isometric View



Placing the shuttle into a channel

The operator must ensure that the channel where the shuttle is located is clear.

Lift the shuttle with a suitable forklift truck, insert the fork under the shuttle and lift the satellite by the guides on the bottom of unit

Lift the shuttle ensuring the ON/OFF the bottom is towards the operator of the forklift and place it in the racking.

The forklift operator/cotroller of the shuttle until must always ensure the lane channel end stop is present; the minimum size 60x70mm to prevent accidental falls from pallet racking due to external causes and/ or abnormal situations due to incorrect handling of the shuttle.

Care must be taken at all time when handling the shuttle unit.

When loaded with the a pallet the shuttle must never be moved with a forklift truck.

The shuttle unit will not accept any input for the remote control when it is outside the lane channel on a forklift, in automatic or in manual mode for safety reason.

All personal must be clear of the area where the forklift and shuttle are operating

Do not enter ant part of asystem where the shuttle is operating.

Radio-Shuttle Pallet Rack



Operation

in semi-automated installation, operator only need to drive the forklifts that carry the pallets and initiate the motorized shuttles activity. the movement of the shuttles inside the racks is automated.

Step 1



A forklift places the pallet shuttle in the channel where work is to be done.

Step 2



Next, The forklift is used to position pallet one by one in the channel entrance, resting them on the load-bearing beams.

Step 3



Using the tablet, The operator sends the command to the shuttle to start the loading operation. Once the location of the pallet has been identified, the pallet shuttle lifts the pallet slightly, and moves horizontally until it reaches the first available location, Whereit deposits the pallet Different sensors accurately control the movements of the load being stored.

Step 4



The pallet shuttle returns to the top of the lane in order the repeat the operation with the next pallet, and the next, as many times as neccessary until the channel is filled. Before the last position is filled, the shuttled is removed is the sequ-ence is repeated in the next channel where work is required

Radio-Shuttle Pallet Rack

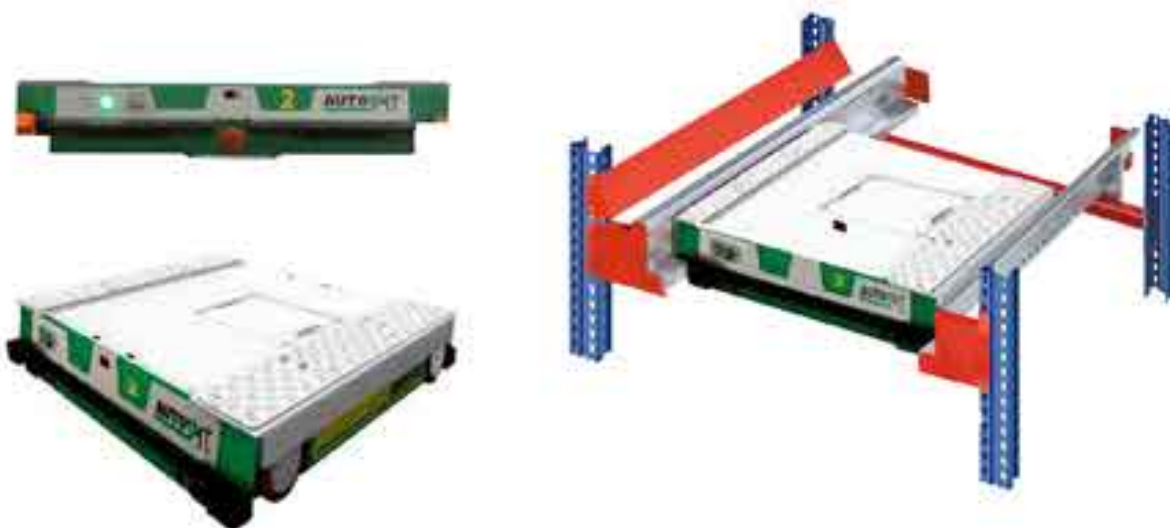
A Radio-controlled, battery operated independent shuttle cart units travel along rails that support pallets above. The shuttle cart travels below the pallet, then elevates a pick-up table that lifts the pallet from the rails and carries it to the front of the racks. From the front of the rack, a conventional forklift truck can select the shuttle cart from its rail and move it to another location.



Components

Safety and control: the foundations of which the system is built

In addition to the control tablet the communicate orders to the shuttle via Wi-Fi the system consists of two basic components.



Radio-Shuttle Rack Components



Upright

They are the vertical components can be adapted to a wide range of the load requirements.



External Rail support

These are used to fix and anchor the rail at each load level to the entry/exit frames outer upright.



Rail

The pallet shuttle runs on rails inside the storage channel. Its design facilitates the loading and shuttle centred.



Pallet Centraliser

These are fitted to the entry/exit points in the storage channels to aid in the placement of the unit load in the channel, ensuring it has been centred



Rail-end stop

Made of folded sheet metal, in 8mm thick L-shape, these are used as a detection element to slow and stop the shuttle in normal working conditions.



Beam

They are the the horizontal , Robust racking components where loads are deposited



Selective Pallet Rack

Selective Pallet Rack



Facts about Selective Interlock System

- *Good Stock Rotation*
- *Good Order picking; 100% selectivity*
- *Average Picking rate*
- *Good product protection*
- *Low Floor area utilization -30% net pallet area usage of overall warehouse area.*
- *Limited pallet redundancy as the system can run at 95+% capacity with a competent*
- *Warehouse Management System (WMS)*
- *Popular application in most industries requiring instant accessibility of all pallets.*
- *Mechanical Handling Equipment*
 1. *Walk behind or ride on stackers*
 2. *Counter Balance / Reach Trucks*
 3. *Reach Truck offers up to 30% improved use of floor space and operates to height in excess of 11+m high*

Selective Pallet Rack



Rfufco selective pallet racking system offers that best solution for warehouses where a wide range of references need to be stored on pallets

- A **selective pallet** racking warehouse is generally laid out with single-entry racks either side and double entry-racks in the middle. The width of the working aisle between each rack and the height of the racks depends on the characteristics of the forklifts or handling equipments. The size of the pallets and the height of the warehouse itself
- Goods can be easily retrieved as each pallet can be accessed without the needs to shift other pallets.
- Total stock control: each storage space is taken up by a single pallet.
- Maximum adaptability to any load type both in terms of weight and volume.



Selective Pallet Rack



Galvanized Racking System for cold storage



Storage Solutions for Cold Storage

Cold storages require intelligent storage solutions to minimize the facilities footprint and maximizing storage density, which in turn reduces the operation cost RFUFCO COMPANY provides versatile and customized solutions that lower the effects of proliferation with customer and product-base segmentation.

Stock Visibility:

Under the special conditions of cold storage, accessing and retrieving goods can be more time-consuming and difficult than usual. Our designs ensure that the layout is optimized for maximum stock visibility, thereby reducing the effort required.

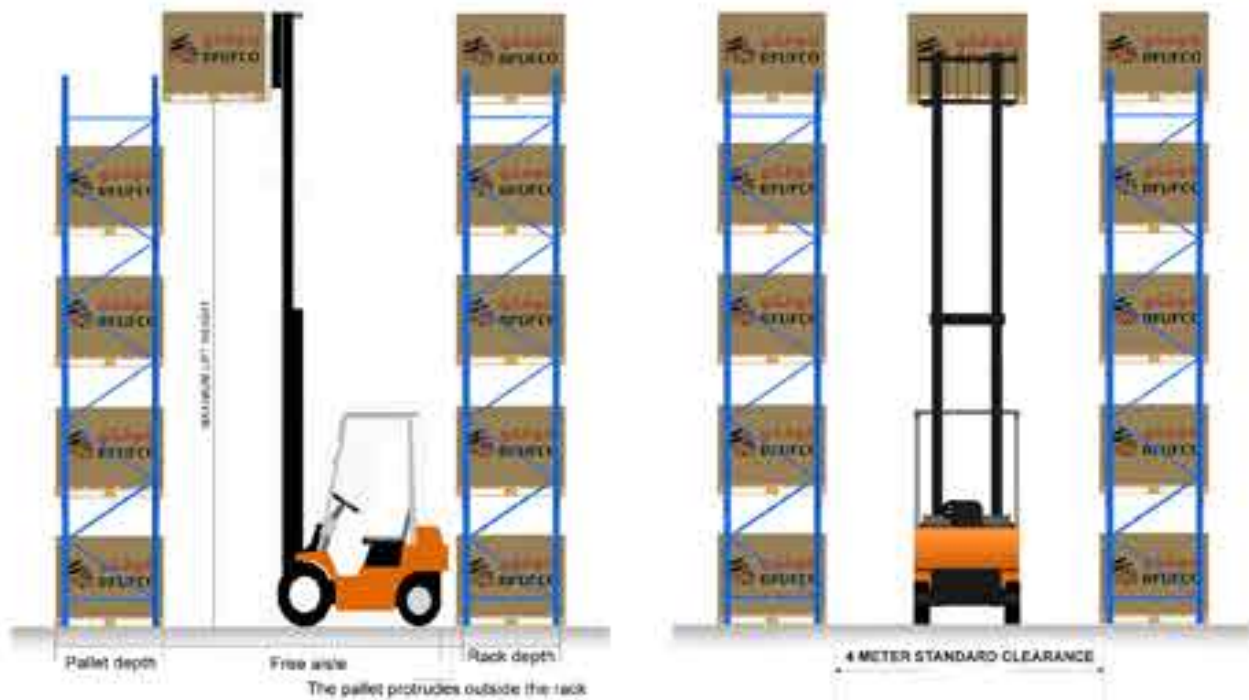
Our Value Proposition

- Customized configuration to suit your requirements
- Increased capacity utilization
- Reduced handling and increased hygiene
- Easy access and need-based retrieval/renewal of stocks

Selective Pallet Rack

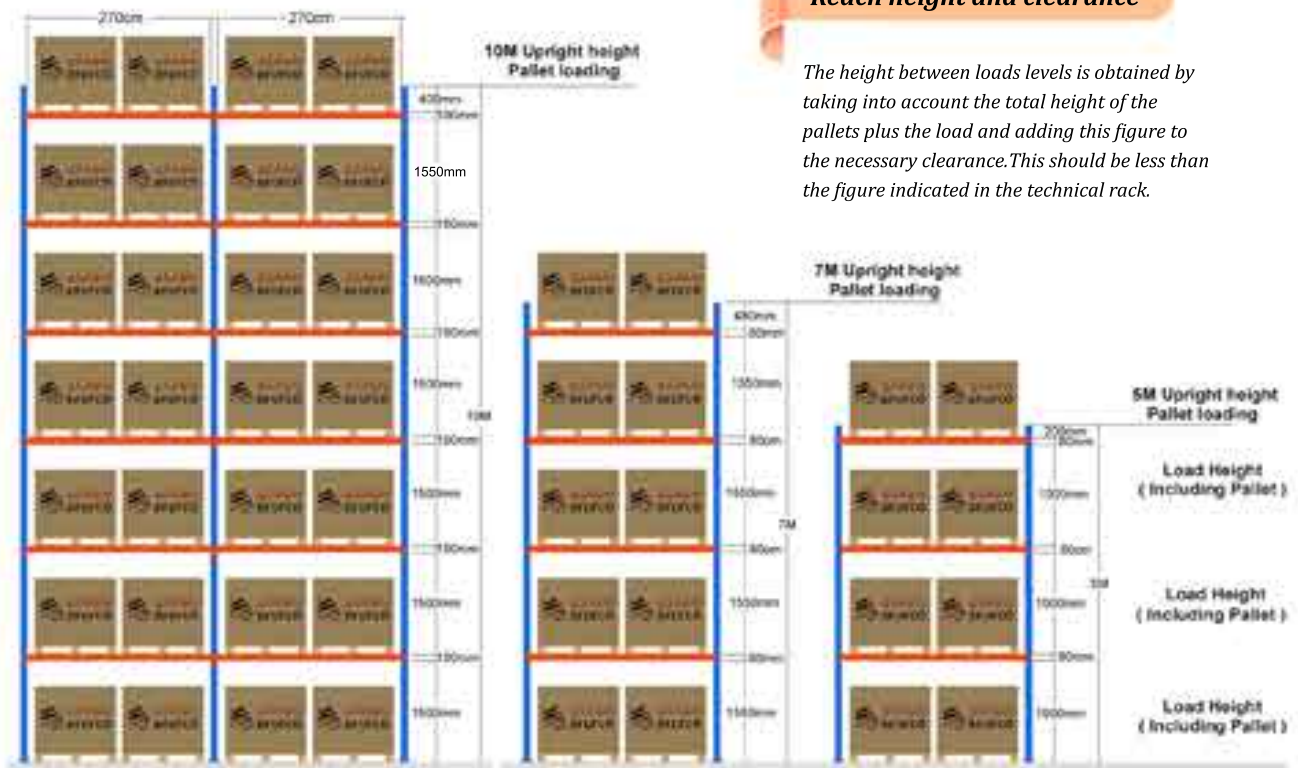


Selective Pallet Rack



Reach height and clearance

The height between loads levels is obtained by taking into account the total height of the pallets plus the load and adding this figure to the necessary clearance. This should be less than the figure indicated in the technical rack.



Selective Pallet Upright





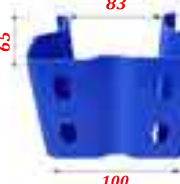
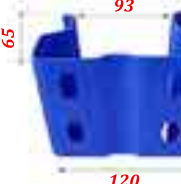
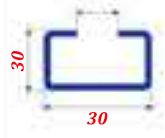
Upright

Frames are made up of two uprights with the corresponding horizontal and diagonal bracing. Footplates and accessories. they are slotted every 50mm in order to fit the beams.

The depth of the frame is determined by the size of the pallet. For a europallet measuring 1,200 mm deep, a 1,100mm from is normally.

Upright section

The different models, sections and thicknesses of upright enable them to be adapted to a wide range of loading requirements.

Upright 50	Upright 90	Upright 100	Upright 120	Upright Support
				
Section : 50X60 Thickness: 1.5, 1.8mm	Section : 90X65 Thickness: 1.5, 1.8, 2.0mm	Section : 100X65 Thickness: 1.5, 1.8, 2.0mm	Section : 120X65 Thickness: 1.5, 1.8, 2.0mm	Section : 30X30 Thickness: 1.5, 2.0mm



Upright 50



Upright 90



Upright 100



Upright 120



Upright Support

Selective Pallet Support



Rack Double Unit

Frame Spacer or Upright Cross Support

Use connect frames & frame (double side)
of frames and upright
Length as required

Size: The body tubular 25x25 with
Fixing Double Sides, 2Pcs. M10x15 Bolts
& nuts at endplates, 1Pcs. N10x65 / 110 Bolt
& nuts at the other ends.



Row Spacer or Joint

Use Row Spacers are fitted between frames
of double entry racks to increase front to back
rigidity and stability.

Length as required.

Size; 40x40x1mm Tubular with 2mm Endplates
30x60x1mm Tubular with 2mm Endplates
Fixing; Tow N10x25mm Grade 8.8G set crews.



Footplates

Frame are erected on the floor using footplates which are fitted to the base of the upright. There is a range different frame footplates whose used depends on the load to be supported and on the upright model used. they are anchored to the floor using one or two anchor bolts.



U-Type Footing









L-Type Footing

Selective Pallet Beam

End Connector Types

Beams are the horizontal and robust component of the rack upon which load are deposited. they are joined to the upright via connectors or endplates, which fit into the slots of the upright. The hooks on these endplate, in the connecting system designed and patented by **RFUF**CO, are joined to the main body of both end. the considerably increase load capacity and prevents deformation that typically occur when the connection between the main body and the hooks or endplate is not sturdy enough.



					
<p>BEAM SECTION</p>	<p>-60x30x1.2 -60x30x1.5 -3 or 3hooks connector</p>	<p>-80x50x1.5 -3 hooks connector</p>	<p>-100x50x1.5 -3 hooks connector</p>	<p>-120x50x1.5 -4 hooks connector</p>	<p>-150x50x1.5 -4 hooks connector</p>



Tube Beam
60x30



Tube Beam
80x50



Tube Beam
100x50



Tube Beam
120x50



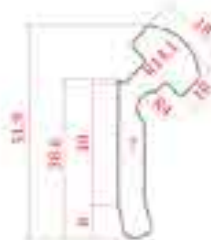
Tube Beam
150x50

End Connector Types

[illegible]






Safety Locking Pin

The end plate that joins the beam and upright include the built-in safety locking mechanism developed in order to make the structure even safer.



Selective Pallet Beam



				
-60x30x1.2 -60x30x1.5 -3 hooks connector	-80x50x1.5 -3 hooks connector	-100x50x1.5 -3 hooks connector	-120x50x1.5 -3 hooks connector	-150x50x1.5 -4 hooks connector

Beams are available designs, These Roll Forming beams come in varying sizes and gauges to accommodate different weight load requirements. Interlock beams are supplied in a standard 'Alert' Orange. Other non-standard 'house' colours can be offered, subject to volume and colour availability.

BEAM LOADING CAPACITY

BEAM	1500mm	1800mm	2000mm	2300mm	2500mm	2700mm	3000mm	3300mm
60x30x1.5	700kg	600kg	500kg	450kg	400kg	-----	-----	-----
80x50x1.5	3290kg	2410kg	2030kg	1630kg	1450kg	1500kg	1050kg	950kg
100x50x1.5	5280kg	3740kg	3150kg	2490kg	2300kg	2200kg	1450kg	1350kg
120x50x1.5	5256kg	5700kg	4640kg	3510kg	2970kg	2800kg	2060kg	1960kg
150x50x1.5	9648kg	6700kg	5430kg	4100kg	3470kg	3500kg	2410kg	2310kg

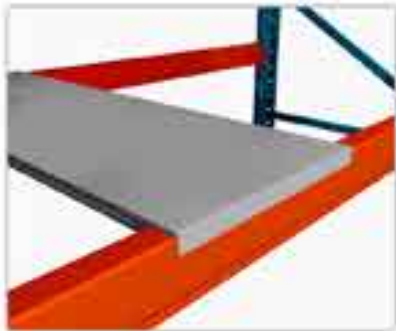
Selective Pallet Shelves



Shelves

Different types of shelves are available, to suit any requirement. The most commonly used are:

Galvanized Shelf



Metal Shelf - HR or CR coil



Metal shelves which, depending on the storage requirements, can be placed on tubular or beams they fit directly on top of the beams.

Selective Upright Protectors



Protectors

These protect racks from light impacts that may occur at floor level preventing damage to the vertical elements.

Upright Frame Protectors

each type of upright has its own type of protector. they are 400mm high and come with 4 anchor bolts to fix them to the floor. they are used to protect uprights from impact and possible damage in facilities where forklift truck operate.



C - Type protector

Frame Protectors

These protect the side of the rack at the bottom. they are normally fitted to end frames and passageways between frames where impact are most likely. Each upright type has its own protector. In order to protect the entire side of a frame.



U- Type protector

V- Type protector



Selective Pallet Wiremesh Decking



Wiremesh shelving are made of round electro-welded mesh panel that rest on crosstie supports, which strengthen the structure. They are always fitted on beams and do not require further fixing.



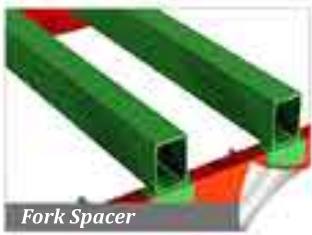
Wiremesh decking with cladding support



Selective Pallet Rack Accessories



Drum Chocks



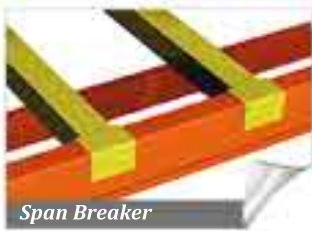
Fork Spacer



Coil Cradles



Cladding Support



Span Breaker



Profile Panels



Shelf Panel



Upright Protector



Drive-In Pallet Rack



Drive-In Pallet Rack



Drive-In racking system

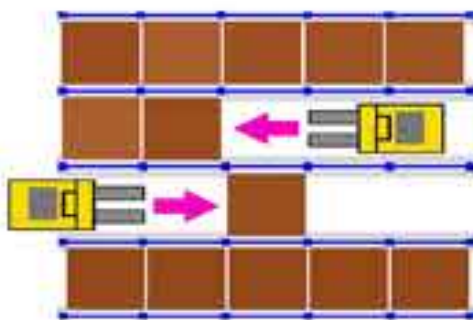
Drive-in Pallet Racking System provide maximum storage capacity using the minimum amount of space. It is particularly suited to store very large quantities of homogeneous products. Drive-In or Double Access System consist of continuous lanes of racking with only a single load and retrieval aisle. loading and unloading is undertaken by means of counter balance or reach trucks that drive down each lane into the racks. Drive-In racking operates on the basis First-In Last-Out (FILO). therefore it only suits products, which is stored in sufficient volume to require multiple lanes to ensure stock rotation.

Drive - In Pallet Rack

Drive-thru

Drive-thru ,rack allow a lift truck to enter the from either side to pick up or full out pallets. Loads are supported by rails attached to upright frames, and lift trucks are driven between uprights to reach pallets. This is done because pallets can slide backwards on a continuos rail. It's open at both ends, allowing first-in, first out storage.

Drive-Thru rack offer the ability to store a large amount of similar loads in a smaller area. Selectivity is sacrificed, but storage density is enhanced since many pallets are stored and are available through a single pallet position.



Top view



Drive-In Pallet Rack

Drive-thru is used to stored many pallets of a similar products. Lift trucks drive into the rack to extract the first pallet they come to. Pallets in the center of the rack system are not accessed as frequently as those edges.



Isometric View

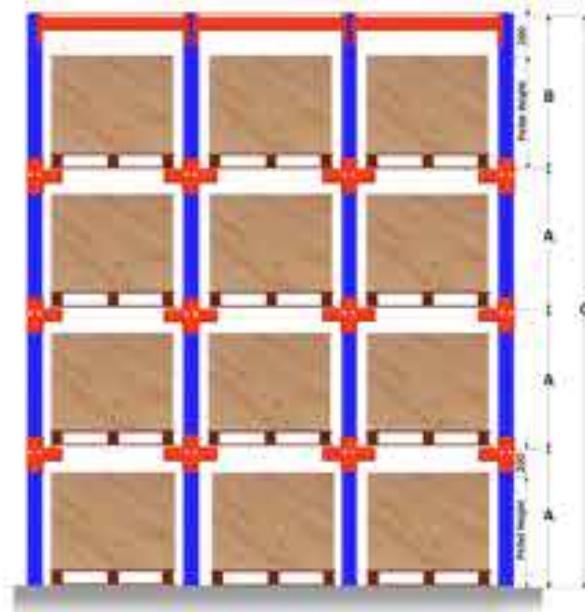
Drive - In Pallet Rack



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Drive-In Pallet Rack



Height

The minimum height measurements required are as follows:

A = Height of the lower and intermediate Level = Height of the pallets + 150mm.

B = Height of the upper Level = Height of the pallets + 200mm

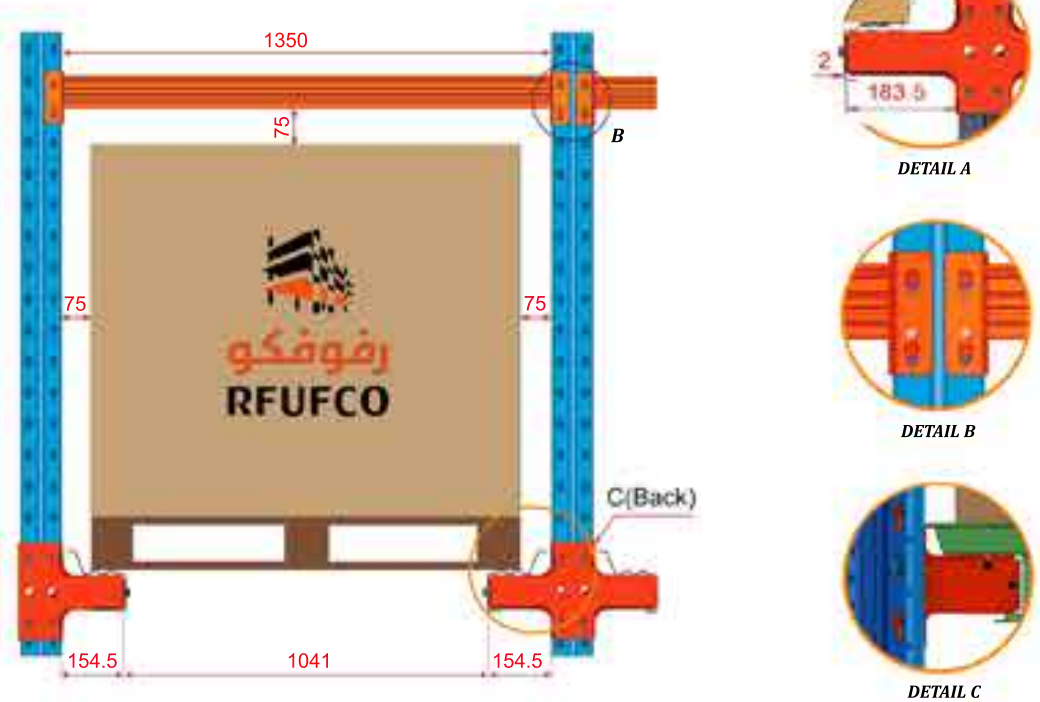
C = Total height = at least the sum of all the levels.

Dimensions E, G and H must always be multiples of 50mm

Drive-In Components

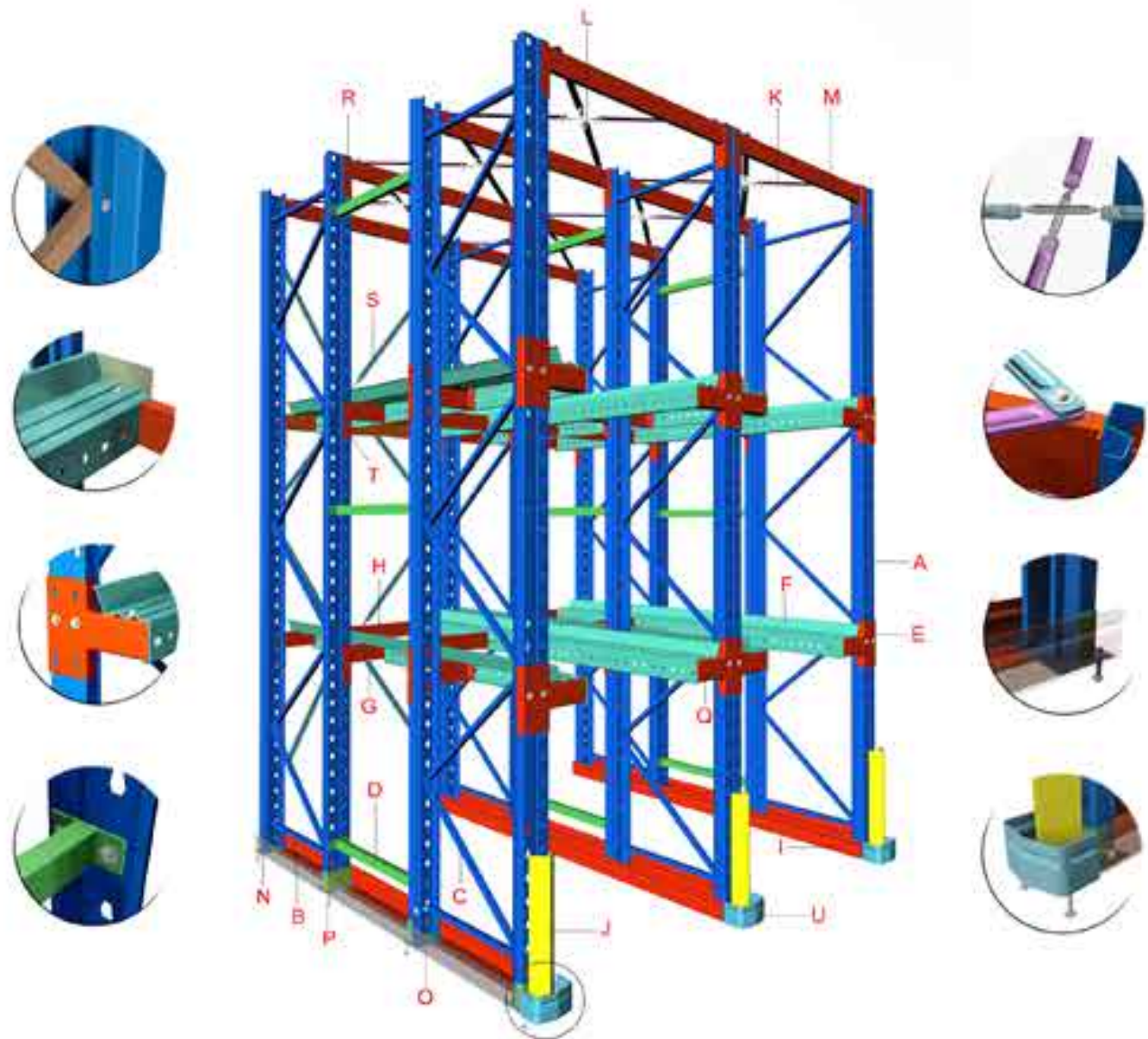


Standard Dimensions:



For normal forklift operation

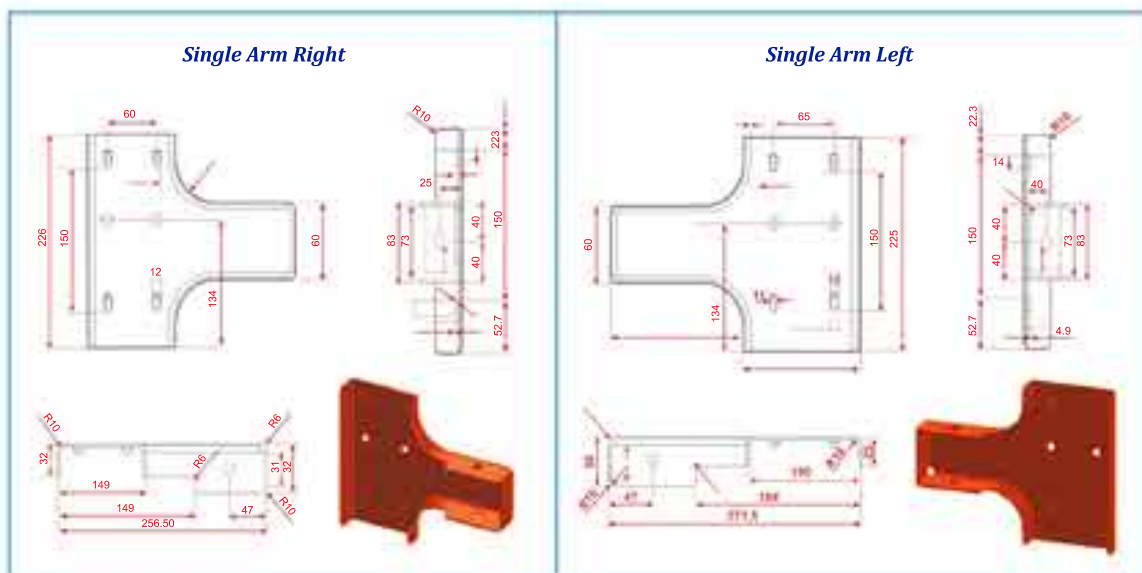
Drive-In Rack Components



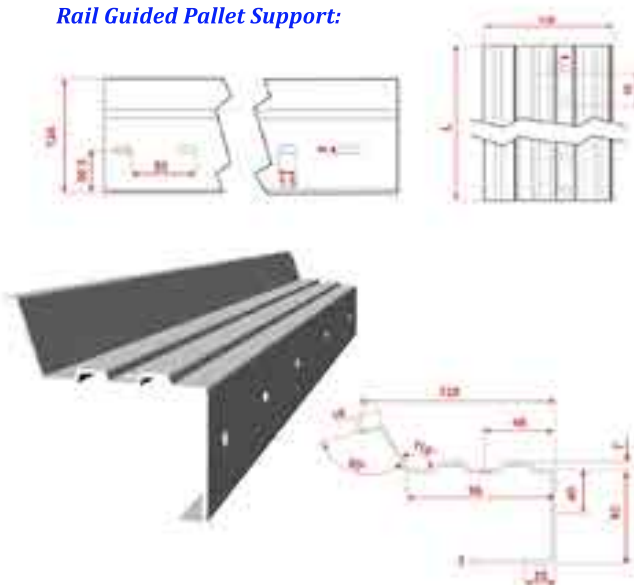
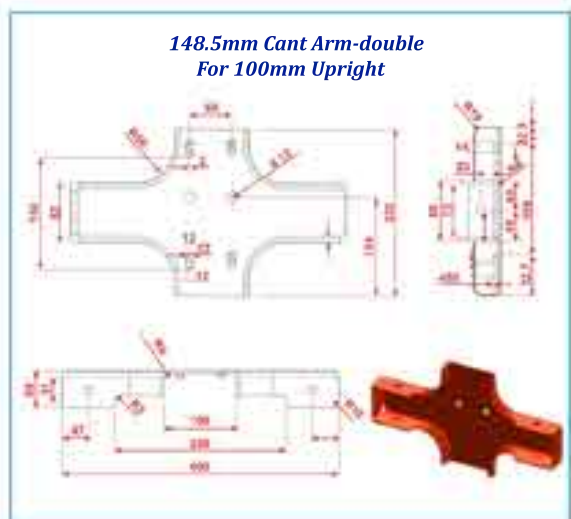
- A: Upright
- B: Horizontal Brace
- C: Diagonal Brace
- D: Cant Arm Single
- E: Guided Pallet Support
- G: Portal Beam with Guided Rail
- H: Portal Beam with Stopper
- I: Floor Guided Rail
- J: Column Guards
- U: End Curve

- K: Top Brace
- L: Turn Buckled
- M: Top Portal Beam
- N: Foot Plate
- O: Small Spacer
- P: Anchor Bolt
- Q: Cant Arm Double
- R: 2 Lip Connector
- S: Back Brace
- T: 3 Lip Connector

Drive-In Rack Components



Rail Guided Pallet Support:



Drive-In Rack Components

Upright:

Omega section with returned flange and central groove
Hexagonal shaped hole at 75mm pitch for Beam levels
Circular shaped hole at 75mm pitch for bracing
12 Bends upright
Made of hot rolled steel
Length can be produced with multiplier of 150mm

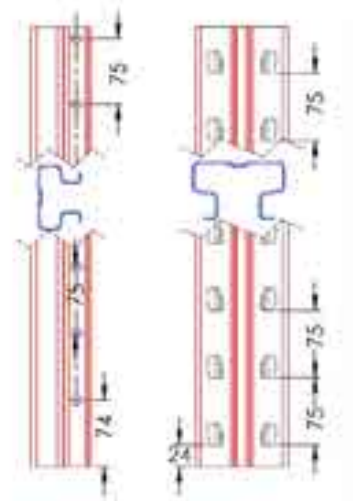


UPRIGHT 100

UPRIGHT 115

Upright Sections

Type H	Type X
Section : 90x63.5 Thickness : 14, 18, 24, 23	Section : 100x63.5 Thickness : 18, 20, 23, 15
Brace 51x17mm with thickness 5.0mm	Brace 51x22mm with thickness 1.0mm



Foot Plate:

Foot Plate - long (Welded)	
H A=160, B=60 C=95mm, D=120,E=24.5,H=25mm	
X A=175, B=75 C=109mm, D=130,E=30.5,H=29mm	



Bolts Free Shelving Storage



Bolts Free Shelvings



Bolts free shelving storage

Basic system of manual storage and archiving for light and medium loads. Made up of vertical structures and panel of horizontal shelves that permit the storage of sectionalized products or small boxes. Various accesories allow for the division of levels and placement of boxes to classify individual products, folders, archives, hanging products.

Advantages

- Multiple unit that adapt to the most demanding requirements.
- It is possible to install one or more gangways to gain access to upper levels.
- The ideal solution for offices, shops and spaces where a more attractive appearance is needed.
- Mobile shelving can be made for archives and warehouse.

Bolts Free Shelvings



Bolts Free Shelvings



Basic components

1. Frame
2. Shelf
3. Shelf support
4. Crossing bracing
5. Cross support
6. Foot plate

Bolts Free Shelvings

M3 Shelvings is ideal for offices, bussiness and places that need a more professional looking system.

The different components are painted in blue ral 5005 (Frame upright) and gray Ral 7047 (other components)

The most common combination are shown in the following illustration



Suspension filing set



Basic components

1. Suspension filing set
2. Shelves
3. Vertical divider
4. Side support
5. Back support
6. Base



Section of the space, Creating of the components for book or files



Bolts Free Shelvings



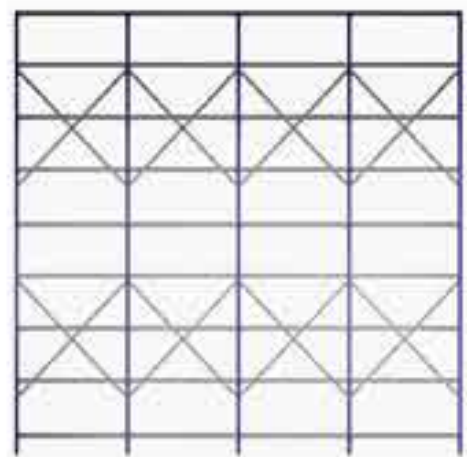
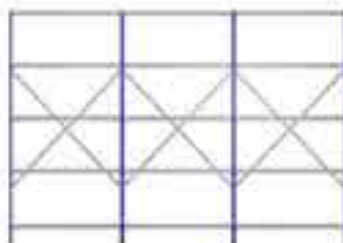
Cross Bracing set

Cross bracing set are vital for the stability and longitudinal rigidity of the shelving. They are attached to side slots at back of the uprights to tighten and stabilise the units



Number of cross bracing

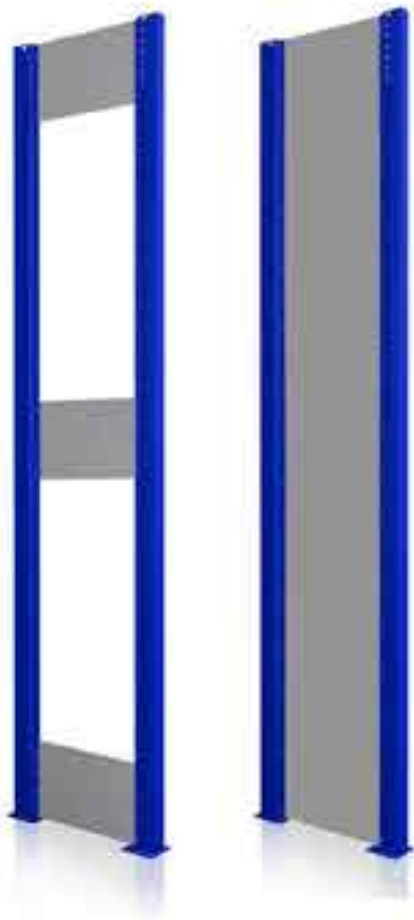
The number of cross braces used is variable, depending of the height, the number of shelvings unit and the stored loads. For shelves with light loads, one cross braced unit in ten is sufficient



Bolts Free Shelvings

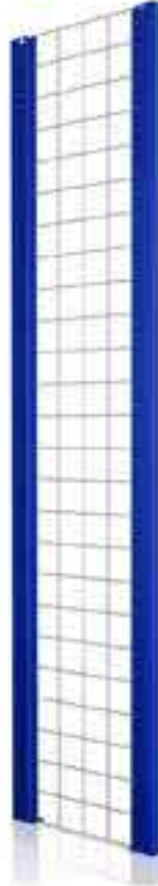
Frames with central metal panelling

These are closed framed that stop products stored on adjacent levels from getting mixed together; the metal panels are made in sections and joined together using panel splice.



Frames with metal wiremesh

These prevents goods from falling off the side as well allowing a lateral view of the products and providing better ventilation.



Frames with cross ties and diagonal

These are basic frames which, in addition to cross ties, include crossed diagonals to increase the level of rigidity in frames in considerable height.



Frames (Upright)

Vertical elements created by two upright joined together with cross ties. Side panels of set of cross ties and diagonal providing the necessary rigidity.

The basic frame made up of two uprights cross ties and footplates.

The number of cross ties depends basically on the height of the frame. The minimum number used is two. The most common frame height are: 1500, 2,000, 3,000, 4,000mm. They can be manufactured up to 8,000 long.

Footplates

Suitable for heavy load, as they distribute the weight over the floor.



Bolts Free Shelvings



The various folds on the front and back of the heavy-duty shelves create a rounded edge, which increases the load capacity. These shelves can be supplied in the slotted option, allowing usage of vertical dividers and accessories.



The channel of the front can be used to attach magnetic holders or stickers for identification label.



Shelves for light or medium loads, depending on the load capacity.



Shelf

Shelf Clip Support



Mobile Shelvings



Mobile Shelvings Storage



Mobile shelving system enables workable storage system even in a small space. Modifying stationary shelves into mobile shelves you can have upto two times more using meters.

Structure of closed end upright makes it possible to use every inch of the shelf and neither is there no space for material dropping from the end of the shelf. A welded wagon guarantees solid and durable structure.

Crank and electricity driven mobiles always have drive in both ends and the longer wagons also have drive in the middle. This guarantees smooth movement and there will not be any stability problems. Ball bearing drives mechanism and o 130mm ball bearing wheel are made of steel.

Shelf thickness 30mm

Adjustment in height 25mm

Max load 80kg / shelf, even load (up to 150kg / shelf for special order)

Horizontal ang diagonal bracing (diagonal bracing attach shelves to wagon)

It is possible to order decoration plate in any color from the RAL color map.

It is possible to cover the mobile shelves with veneered plates.



Mobile Shelvings Storage



It is a set of shelving units mounted upon mobile bases which move along rail. Thereby guaranteeing optimal order and distribution of the archive and warehouse, as well as a better used of space.

Advantages

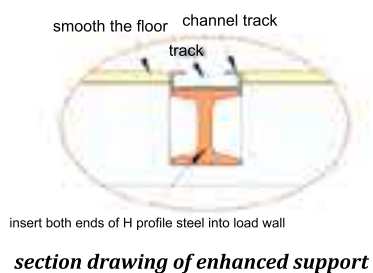
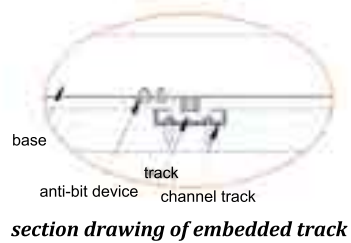
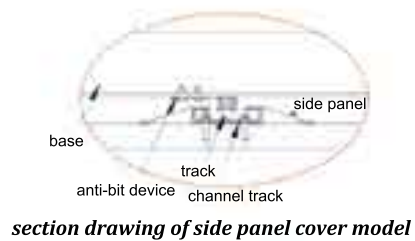
- Great use of space as it is a compact storage system.
- Can be adapted to any available space.
- Total safety of filed materials.
- Ideal for the storage of all types of book and documents.
- When the shelves reach a high height, ways fitted half-way up enabling the upper levels to be accessed can be installed.



Mobile Shelvings Storage



Design of track



Components of mobile shelvings



Mezzanine floor Storage



Mezzanine Floor Storage



Mezzanine Floor are essential to most modern warehouse, factories, and other industrial facilities. Used to storage goods or create additional work or areas, they incorporate features such as cat ladders for access, parcel chutes, and pallet gates.

Our Expert have extensive knowledge in all forms of structural floor. Taking the project on board, we carry out a full site survey, provide you with working CAD drawing, we can also handle all building regulations- a legal requirement for any mezzanine flroo, and planning application to local authorities.



Mezzanine Floor Storage



Mezzanine Storage allows you to utilize overhead space for additional offices, record archival or general storage. The key benefit of it is the ability to create new space fast and efficiently.



Mezzanine Floor Storage



Mezzanine storage are suspended or supported floors erected within a building. A mezzanine floor provides additional work or storage space without adding to the building's original footprint something for nothing almost! This storage contains information on industrial and commercial/ retail mezzanine floor, and the options available. There is a mezzanine floor application library, featuring installations in many industry sectors and geographical regions. You will see who is buying red floor and what they think of it You can also find details of relevant building regulations and safety standards, a mezzanine floor gallery, and various downloadable brochures.



Mezzanine Floor Storage

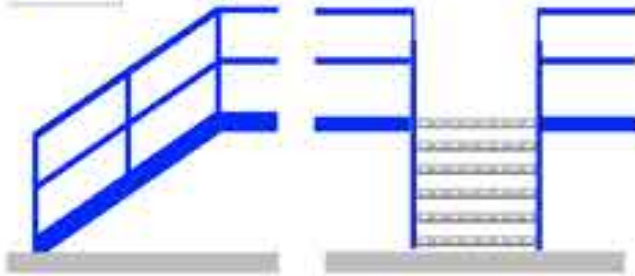
Preassemble RFUFCO staircases are easy to set up, resilient, adaptable to the different heights and comply with constructive standards applicable on an international level. Normally 8, 10, 12 and 15 step staircases are stalled, depending on the height to be filled. From 15 steps and upwards, several flights must be installed which incorporate intermediate landings

The best type of staircase will be chosen on an individual basis depending on the number of steps. The staircase width (standardized sizes are 800 and 1000 mm wide) and the number of railings (1 or 2, based on the location of the staircase)

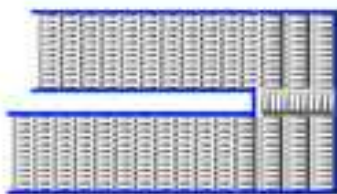
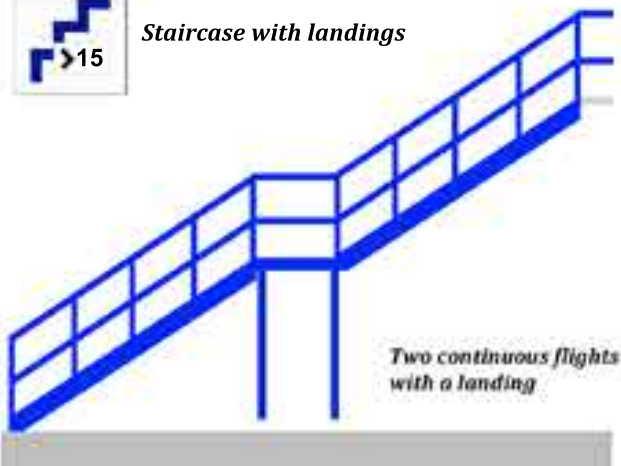
The configurations of the staircases vary according to the floor distribution and the space available



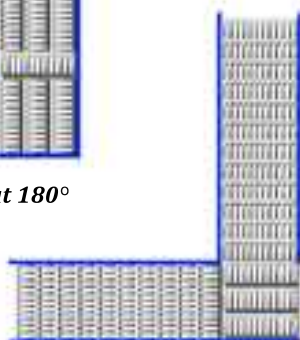
Staircase without landings



Staircase with landings



Two flights of stairs at 180°



Two flights of stairs at 90°



Mezzanine Floor Components

Frame (Upright)

Vertical elements created by two uprights joined together with cross ties. Side panels of set cross ties and diagonal providing the necessary rigidity.



Beam

Beams are the horizontal and robust component of the rack upon which load are deposited. they are joined to the upright via connectors or endplates, which fit into the slots of the upright.



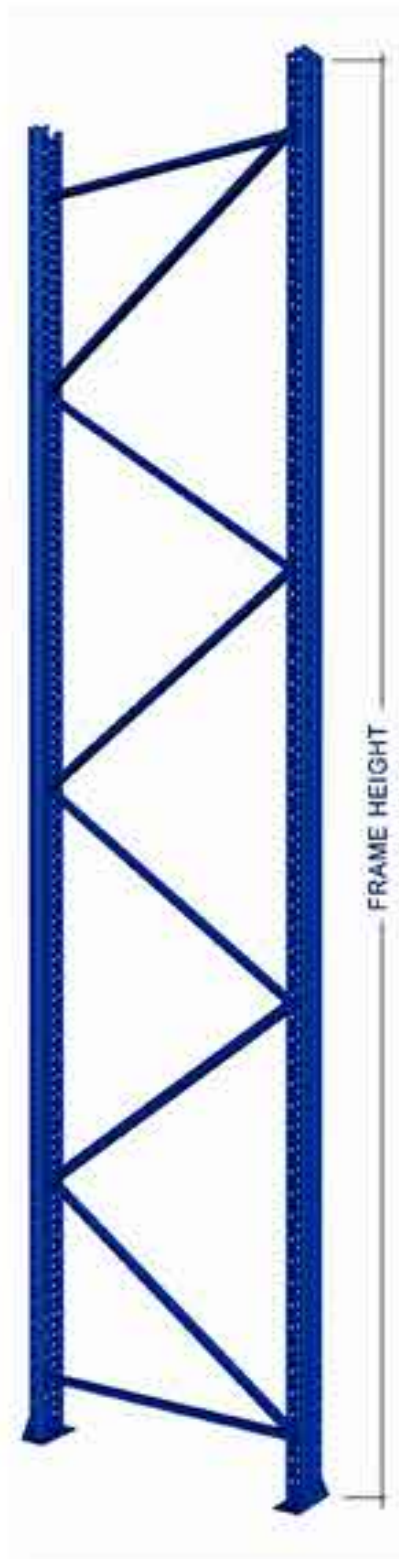
Mezzanine Shelf (Galvanized)

Metal floors are manufactured out of galvanized steel and have a high load capacity. The different models come in a variety of slotted or perforated surfaces depending on the ventilation requirements and the water supply in fire protection system.



Shelves

Metal shelves which, depending on the storage requirements, can be placed on tubular or beams they fit directly on top of the beams.



Mezzanine Platform Storage



Mezzanine Floor Storage



Mezzanine are steel structure made out of main beams and columns. They create new elevated surfaces on warehouse or premises floors, enabling extra space for storage, work areas, offices, in a quick and in expensive way.

In order to offer the ideal solution in each individual case. Has three mezzanine constructive system to choose from based on the load, the distances between columns and the use for which they are intended. When designing a mezzanine floor with any of the mentioned constructive system, the constraining factors within each case are taken into account. These include factors such as accesses. The work system, the product the loading and unloading area.



Mezzanine Floor Storage



Installation of a mezzanine or elevated platform is one most economical ways to create additional storage space in a ware-house, distribution center or industrial or manufacturing facility where high ceiling exist. Storage mezzanine and elevated platforms allow storing uniform or odd-size parts, machinery, equipments, supplies or other bulk items at floor levels as well as above, nearly doubling the storage capacity of the available floor storage.



Mezzanine Platform Storage



Zigma System

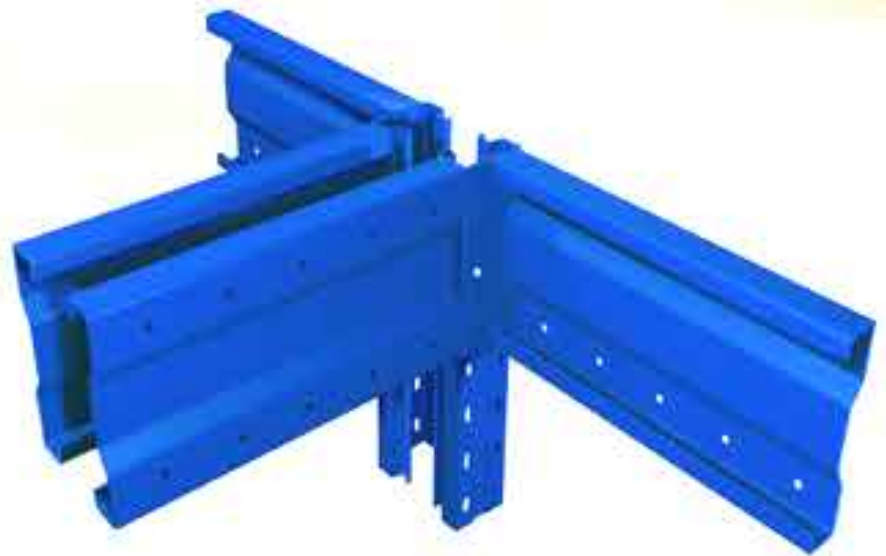
This type of mezzanine are composed of cold-profiled elements both the columns and the beams with zigma profiles are manufacture in various heights, length, thicknesses drill hole diameter.



Zigma Post



Zigma Beam



Mezzanine Galvanized Metal Floor

Metal floors are manufactured out of galvanized steel and have a high load capacity. The different models come in a variety of slotted or perforated surfaces depending on the ventilation requirements and the water supply in fire protection system.



Longspan Shelving Storage

Longspan Shelvings Storage



Level composed of beams and shelves

Each level has minimum of two beams fitted with shelves or panel

This is the ideal system to store:

- Boxes, pockets, loose material
- Heavy load in medium-sized storage spaces
- Medium -sized loads in large storage spaces
- Bulky products.

The rigidity resulting from fitting the beams to the frame is usually sufficient to guarantee the stability of the shelving, and therefor a basic rack only requires frames, beams and shelves. The latter may be made of metal, chipboard mesh.

Longspan Shelvings Storage



Storage system for manual picking of products following the "man to goods" principle.



Main Benefits are:

- Possibility of storing medium to heavy loads
- Adjusting between multiple level of 25 or 50mm, depending on the construction system used.
- Racks up to 20m high can be built.
- Possibility of installing one or several gangways to gain access to upper levels
- Easy assembly
- Excelent mobility

Longspan Shelving Storage



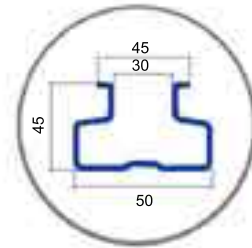
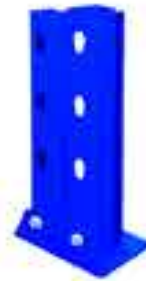
Longspan Shelvings Storage



Light duty rack is the most popular series and best selling product, it has found wide application in industrial, institutional commercial and many fields.



Longspan Shelvings Components



Upright

Composed of two uprights with the corresponding bracings, footplates and accessories.
The different depth enables the shelvings to be adapted to sizes of the product to be stored.
Diverse upright models, and thickness easily adjust to a variety of loads.

Shelves

Metal shelves which, depending on the storage requirements, can be placed on tubular or beams they fit directly on top of the beams.

Galvanized



Metal Coil



Beam

The beams are horizontal components where loads are deposited or where shelves are placed to store small-sized products. They are joined to the upright by means of connectors which fit into their slots.



Footplate

The frame are fixed to the floor by means of footplates which are placed at the base of the upright. Different footplates are available depending on the upright model anchor bolts can be fitted to the shelving when required.

Very Narrow Aisle (VNA)



Very Narrow Aisle (VNA)

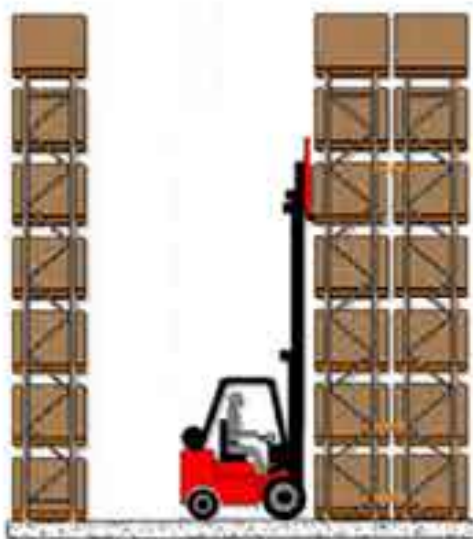


Facts about Very Narrow Aisle (VNA) Pallet Racking System

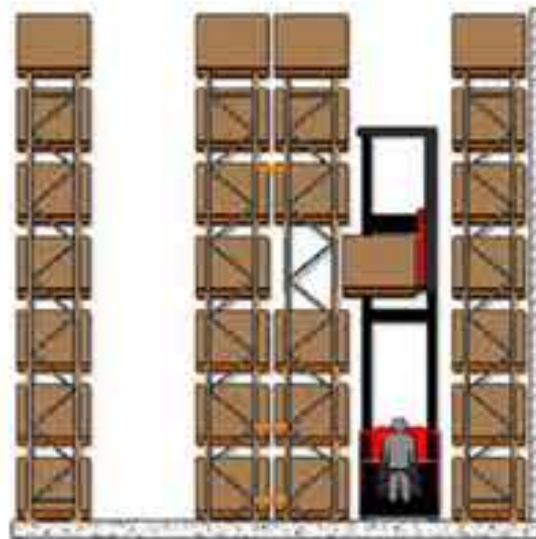
- Good Stock Rotation
- Good Order picking; 100% selectivity
- Fast Picking rate
- Good product protection
- Average Floor area utilization
50% net pallet area usage of overall warehouse area
- By increased operational height, can increase warehouse capacity by an additional 40% compared with selective racking systems
- Requires super flat floor
- Limited pallet redundancy as system can run at 95%+ capacity
RF controls on the MH equipment will ensure maximum pallet cycles per hours
Commonly used with Pick Up and Despatch (P&D) stations at end of each aisle
- A smaller reach or counterbalance truck is generally used in conjunction with the operation of the VNA MH machine, to maximize operation when within the aisle
- Mechanical Handling Equipment
 1. Specialist VNA machine - requires super-flat floor surface
 2. Operates within guide rails, standard or low profile, or using a wire induction guidance system which operates to a maximum height of 15m



Very Narrow Aisle (VNA)



Standard Pallet Rack Configuration



Very Narrow Aisle Rack Configuration

Very Narrow Aisle (VNA)



Double Deep Pallet Rack



Double Deep Pallet Rack



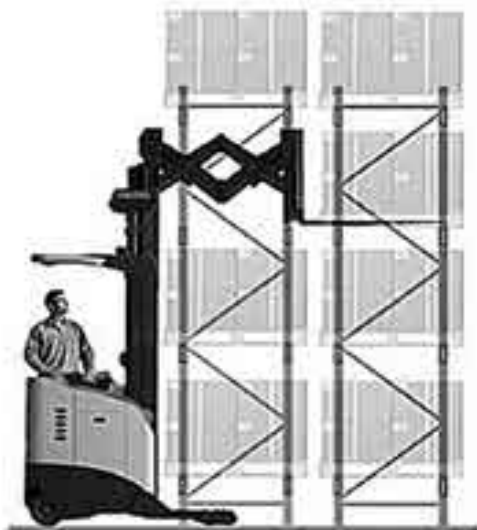
Facts about Double Deep Pallet Racking System

- Lower beam level required for some types of equipments
- Operates up to height of 10m
- Average stock rotation
- Average order picking, 50% selectivity
- Average Floor area utilization 40% net pallet area usage of overall warehouse area
- Redundancy rates can run between 10-20% dependant on the quality of the WMS programme
- Popular against Drive-in Racking, as a lower cost alternative which increase capacity over selective by up 30%
- Recommend the use of pallet rails or pallet support bars above 4m. to increase MH productivity and improve safety of the operation.
- Recommend to use colum protectors when using MH equipment that requires the straddle leg to go below bottom beam or between pallets and upright
- Mechanical Handling Equipment
 1. Specialist machine with either pantograph or telescopic forks, or using a purpose designed attachment, which can be fitted to standard reach truck.

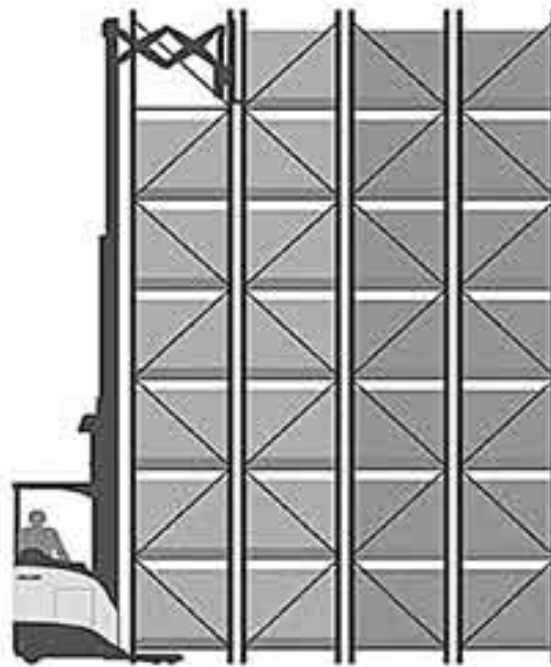
Double Deep Pallet Rack

TOP 5 Benefits of Double Deep Racking

- 1) Efficient use of floor space with a good aisle/shelving ratio
- 2) Increase storage density by around 30-40% with good selectivity
- 3) Keep product lines together by storing two pallets deep
- 4) Easily reconfigured to adjust shelf levels or convert to selective racking
- 5) A cost-effective racking configuration



Double -Deep Against wall

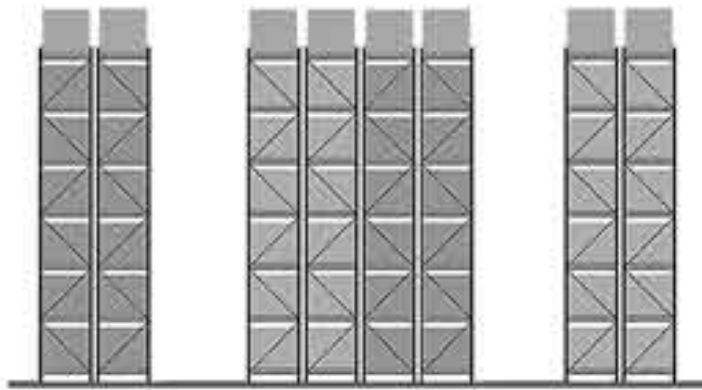


Double -Deep Back-to-back

Double Deep Pallet Rack

The **Double-deep** racking system is designed to increase storage capacity, double-deep racking system is capable to store two pallets deep into the single-entry rack or four pallets deep in a double entry rack. Back-to-back racks are four pallets deep, reducing both the aisle-to-rack ratio and selectivity.

This system is particularly beneficial when the throughput is low while fast movement of pallet is not critical. A special reaching truck with double-pantograph or extendable fork is used in this racking system.



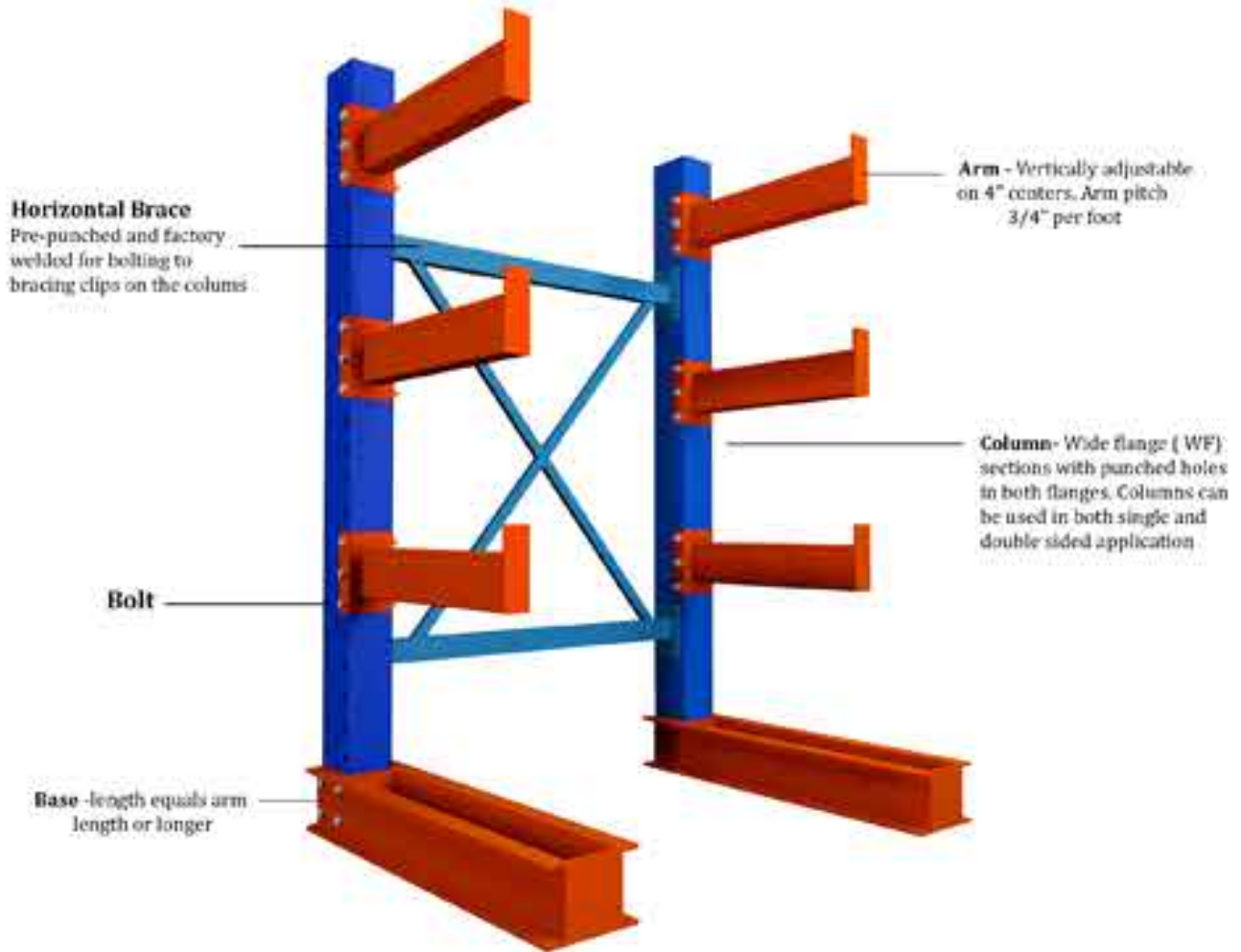
Side Elevation



Cantilever Rack Storage

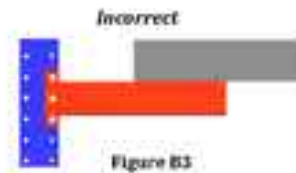
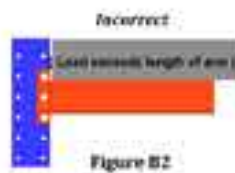
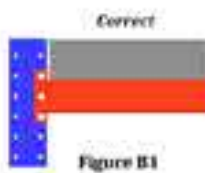


Cantilever Specification



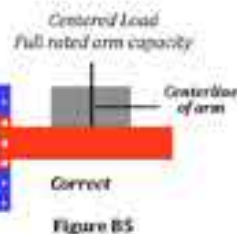
Determine the Length of the arms

The depth of the load should never exceed the length of the arm. A 48" wide bundle of plywood requires a 48" long arm, bundles of steel 24" wide requires a 24" arm and so on. Rated arm capacities may be seriously diminished if proper loading techniques are not observed. Figures B1, B2 and B3 illustrate incorrect arm loading.

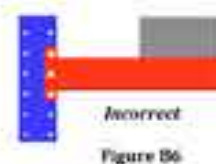


NOTE: All arm capacities are based on an evenly distributed load as in figures B4 and B5 below.

*Evenly Distributed Load
(front to back)*
Full rated arm capacity



Tip Loading
Arm capacity may be reduced by up to 50%



Cantilever Rack

Easy to build and reconfigure

Quickly gets your storage organized

Frames capacities up to 1750kgs

Arms carry loads up to 185kgs

Single or double sided configuration

Frames available in 3 heights 2 depths

Optional end stops available

Secure any loose items from falling off

Strong powder coating finish

Blue RAL5010 coordinates with our shelvings systems



Cantilever for dram tank



Cantilever for cable roll



Cantilever for lumber

Cantilever Specification



Cantilever racking is specially designed to store long loads such as beams, profiles, pipes and timber

Cantilever Storage is widely used in many industries for storing materials such as tubing, pipe lumber and other items with long length, irregular shape or configurations. They are also used extensively in the lumber and building materials business for outdoor yard storage structures such as T-sheds, and rack supported drive-thru buildings.



Supermarket Shelvings



Supermarket Shelvings



Supermarket Shelvings



Supermarket Shelvings





Hypermarket Shelvings



Hyper market corner wall gondola



Hypermarket island gondola



Supermarket Shelvings



STANDARD DIMENSIONS FOR WALL GONDOLA SHELVINGS

H Height (mm)	W Width (mm)	D Base Depth (mm)	T Thickness (mm)	P Shelf Depth (mm)
1700	500	300	80	300
1900	750	400	100	400
2200	1000	500	140	500
2450	1250	600	140	600
3300	1500	700	140	700



STANDARD DIMENSIONS FOR ISLAND GONDOLA SHELVINGS

H Height (mm)	W Width (mm)	D Base Depth (mm)	T Thickness (mm)	P Shelf Depth (mm)
800	800	300	80	300
1200	1000	400	100	400
1400	1200	500	140	500
1700	1500	600	140	600
1900	1800	700	140	700
2200	2100	800	140	800
2450	2400	900	140	900
3300	3000	1000	140	1000



Island Gondola
w/ Hole Back Panel



Island Gondola



End Gondola

Supermarket Shelvings

Standard Dimensions of the Shelving

The Diagram shown below refer to the standard dimensions of the suspended shelves and base shelves



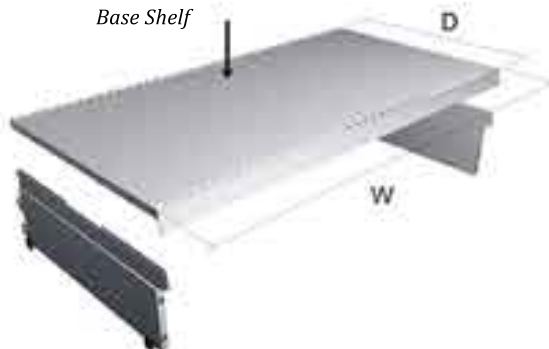
Suspended Shelf



	W WIDTH (mm)	D Depth (mm)	Number of reinforce- ment
SHELF	1000	300	1R
	1000	400	2R
	1000	500	2R

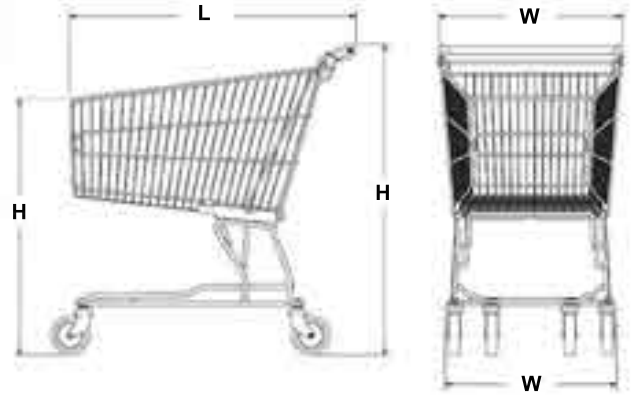


Base Shelf



	W WIDTH (mm)	D Depth (mm)	Number of reinforce- ment
BASE SHELF	1000	300	2R
	1000	400	2R
	1000	500	3R

Supermarket Shopping Trolley



Supermarket Trolley Standard Size

ITEM NO	LITERS	SPECIFICATION Length/width/height (mm)	BEARING KGS	WHEEL SIZE	SURFACETREATMENT (FINISHED)				20HQ	40HQ
					ZINC WITH EPCEY	ZINC	CHROME	PWDD COATING		
RF-04	125 L	910x555x1010	110	4"	Y	Y	Y	Y	200	540
RF-05	150 L	990x585x1040	110	5"	Y	Y	Y	Y	150	400
RF-06	180 L	1070x655x1040	120	5"	Y	Y	Y	Y	150	400

- Special steel tubes make the bottom structure of barrows fast and beautiful.
- Hit preventing shield is installed at the corner of net basket it can prevent friction of barrows and other objects effectively.
- Using special fixed setting so that the handle will not revolve.



Supermarket Shopping Basket



RSB - 2001



RSB - 2002



RSB - 2003



RSB - 2004



RSB - 2005



RSB - 2006

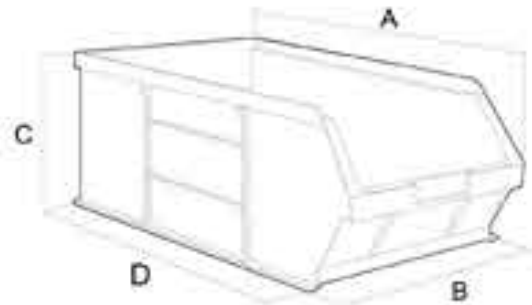


RSB - 2007

Plastic Stacking Bin



Plastic Stacking Bin



Ref. No.	Nominal Overall Dimensions				Volume Based on A B & C	No. Of Louvers Used
	A	B	C	D		
Pb2	165	102	76	152	78cu.in.	3
Pb3	241	152	127	197	285cu.in.	6
Pb4	356	203	127	298	560cu.in.	9
Pb5	356	203	178	298	784cu.in.	12

Plastic Bin Advantages			
 <p>CODE - 2250 size - 175x300x150</p>	<p>Plastic Bin Manufactured from high Quality anti static grade polypropylene. Used in Hanging louvered panels, shelves, racks and trolley, Ideal for live storage or conveyor applications. Semi - open front, smooth finishing and clean inside faces to eliminates dust traps. Provisions for holding identification card Resistance to most industrial solvents and virtually indestructible Reinforced base and edge to ensure safe stacking and handling Available in five standard sizes and four attractive colours. Utilized cubic load capacity stackable</p>		 <p>CODE - 2249 size - 102x170x74</p>
 <p>CODE - 2254 size - 340x510x250</p>	 <p>CODE - 2253 size - 340x510x200</p>	 <p>CODE - 2252 size - 260x400x200</p>	 <p>CODE - 2251 size - 260x400x150</p>

Plastic Stacking Bin



CODE - 2258
Metal Cabinet with Bins

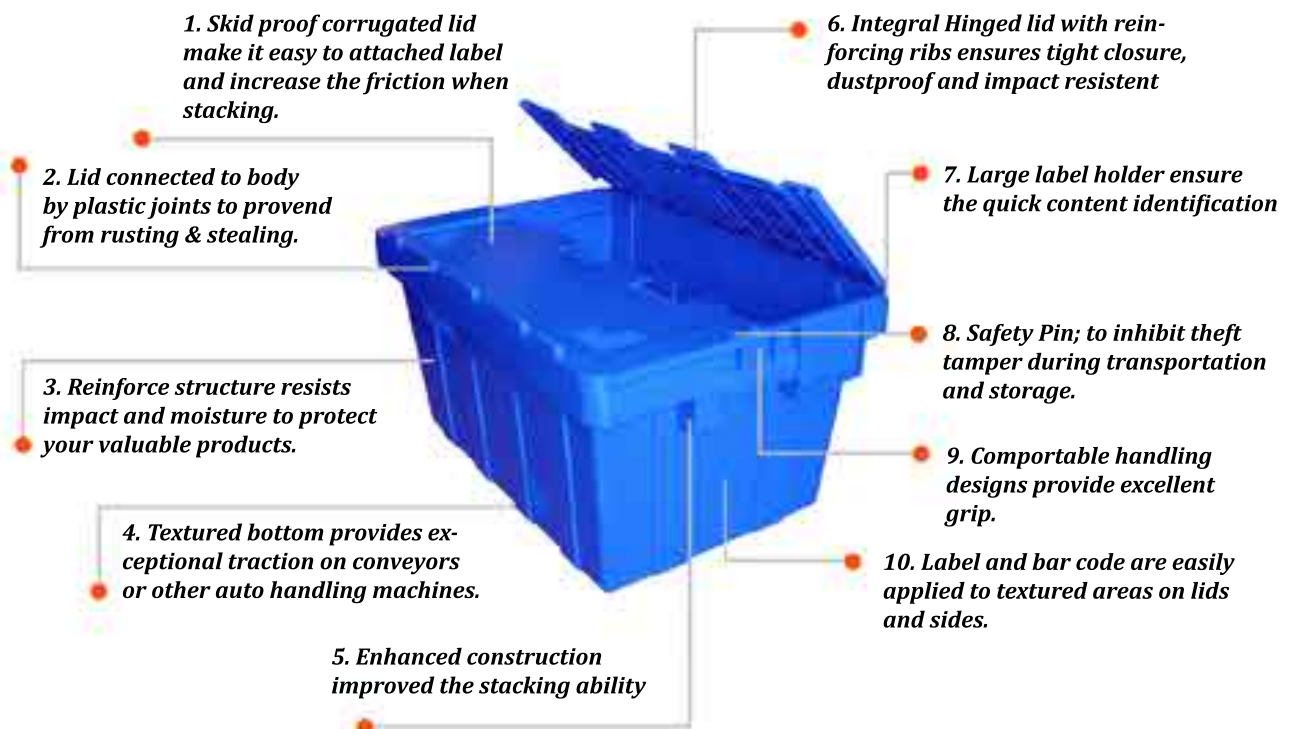


CODE - Stand 2261
size -1050 x 860 x 1800



Usefull in warehouse that handle multiple and small sized such as parts. warehouse workshop and manufacturing plants, They can be used as independent units for classification and storage, or they can be joined by a union clip to form a compact drawer system, when placed in shelving. the ease and the speed of locating products is significantly improved. They are made of polysterene, which makes them long-lasting and highly cost effective.

Plastic Box Bin Container



Plastic Box Bin Container

Size - 400mm x 600mm x 365mm



Size - 400mm x 600mm x 230mm



Size - 400mm x 600mm x 416mm



Size - 300mm x 400mm x 220mm



Size - 400mm x 600mm x 355mm



Size - 400mm x 600mm x 410mm



industrial Steel Cabinet & Trolley



*Stationary steel drawer
with filling rack*



*Stationary
Metal Drawer*



*Drawer Box Single
Sided Stand*



Hobby Stand



Metal Trolley with Drawers



*Table Office
Stationary Metal Drawer*

Industrial Steel Cabinet & Trolley



Code - 2259
Trolley with Drawers



Code- 2260
Trolley with Drawers



Code- 2271
Metal Trolley with Drawers



Code - 2270
Metal Trolley with Drawers



Code - 2263
Material Cabinet



Code - 2264
Locker Cabinet



Code - 2269
File Cabinet

Industrial Steel Ladder



RIL- 2035

Heavy Duty Rolling Ladder



RIL- 2036



*Light Duty
multi-purpose Ladder
RIL- 2037*



*Cantilliver Ladder
RIL- 2038*



*Standard
Crossover Ladder
RIL- 2039*

The image shows a vast quantity of blue plastic pallets stacked in a warehouse. In the foreground, a single pallet is shown in detail, featuring a grid of square holes on its top surface and four vertical legs. Behind it, the pallets are stacked into tall, uniform columns that stretch into the background, creating a strong sense of depth and repetition. The lighting is bright, highlighting the texture and color of the plastic.

Plastic Pallets

Plastic Pallet



Dynamic Load



Racking Load



Static Load



Plastic Pallet



Dimensions	Standard color	Weight (kg)	Truck load	Static load (kg)	Dynamic (kg)
120cmX100cmX15cm	Green, Gray, Blue, Red, Yellow	22	Pcs 408	7000	2000
120cmX80cmX15cm	Green, Gray, Blue, Red, Yellow	12.5	Pcs 680	3000	900



Hand Pallet Specification



Steel Pallet Container



Folding pallet container

Step 1



Step 3



Step 2



Step 4



Steel Pallet



RSP- 101



RSP- 102



RSP- 103



RSP- 104

Industrial Steel Pallet Container



RISPC- 2007



RISPC- 2008



RISPC- 2009



RISPC- 2010



RISPC- 2012



RISPC- 2013



RISPC- 2014



RISPC- 2015



RISPC- 2016

Push Cart Roll Container



RPCRC- 2017



RPCRC- 2018



RPCRC- 2019



RPCRC- 2020



RPCRC- 2021



RPCRC- 2022



RPCRC- 2023



RPCRC- 2024



RPCRC- 2025

Industrial Push Cart



RPC- 2026



RPC- 2027



RPC- 2028



RPC- 2029



RPC- 2030



RPC- 2031



RPC- 2032



RPC- 2033



RPC- 2034

Chrome Hanging & Shelving System



Some of Finish Project



Some of Finish Project



Some of Finish Project



Some of Finish Project



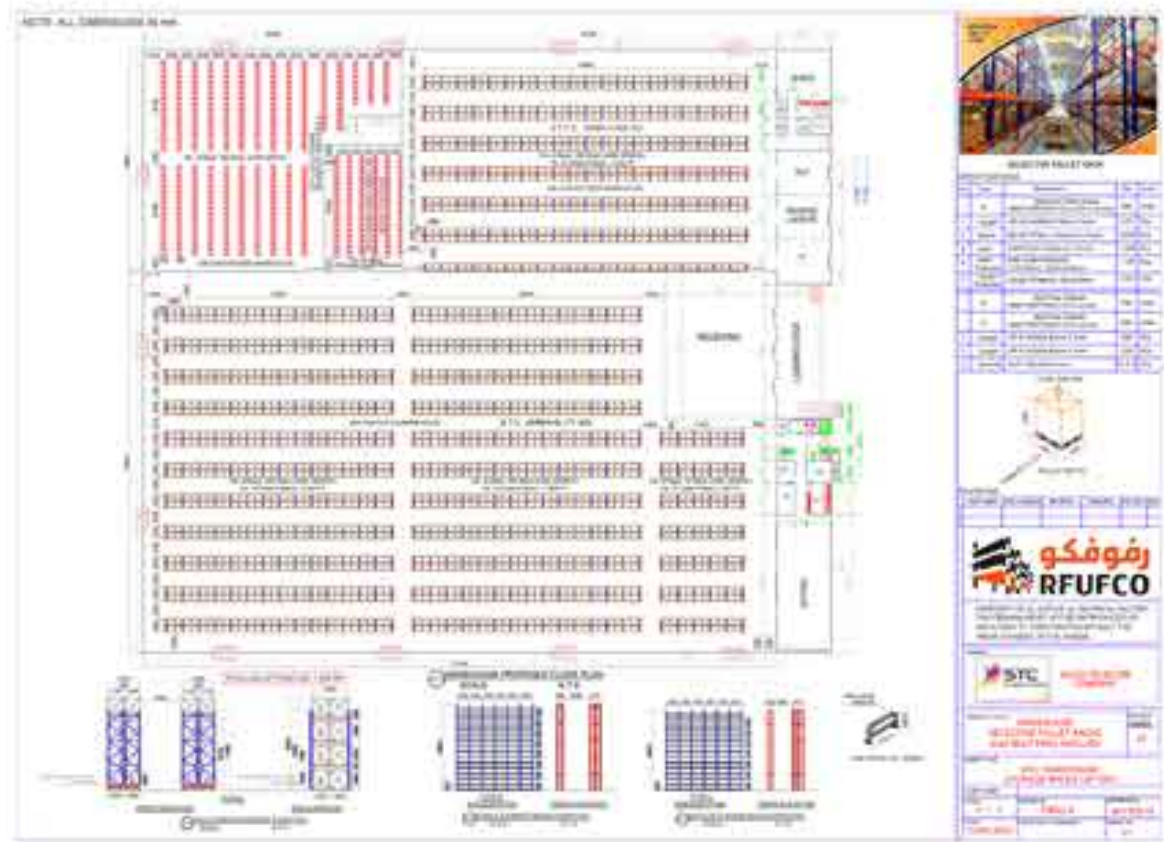
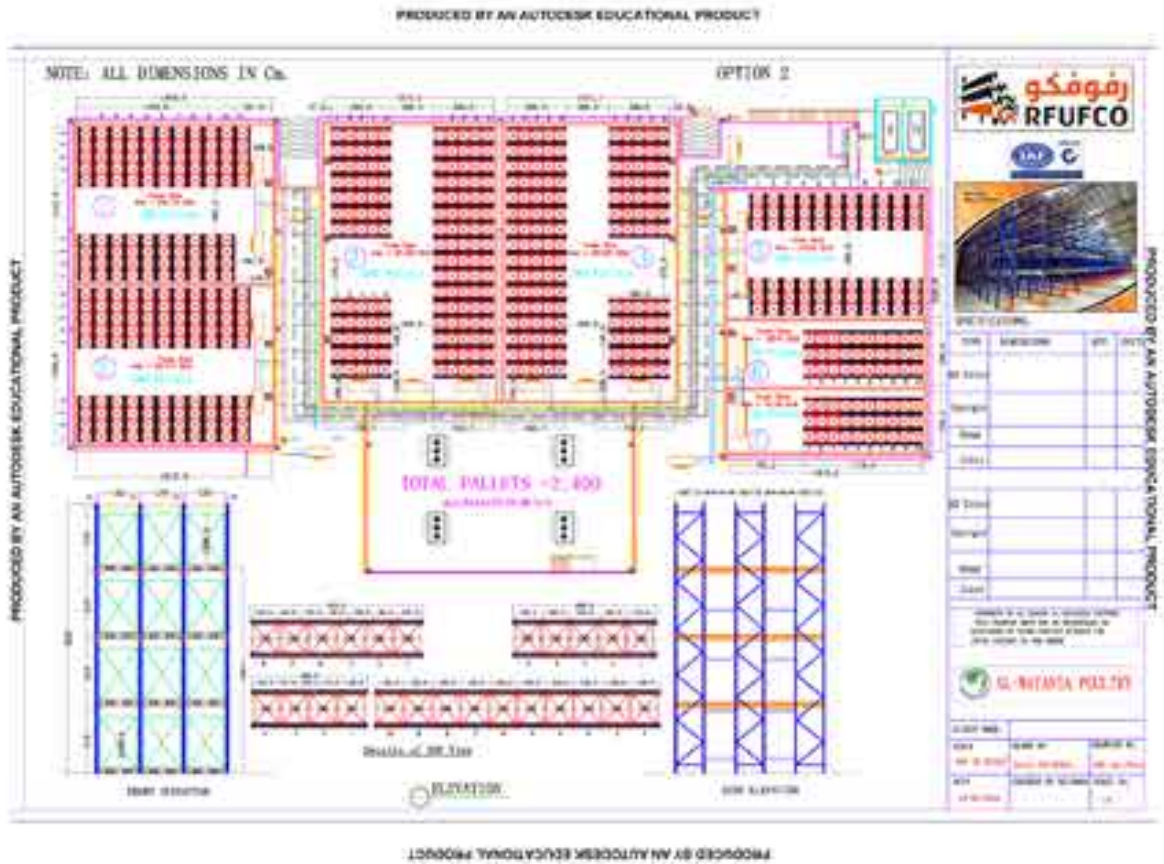
Some of Finish Project



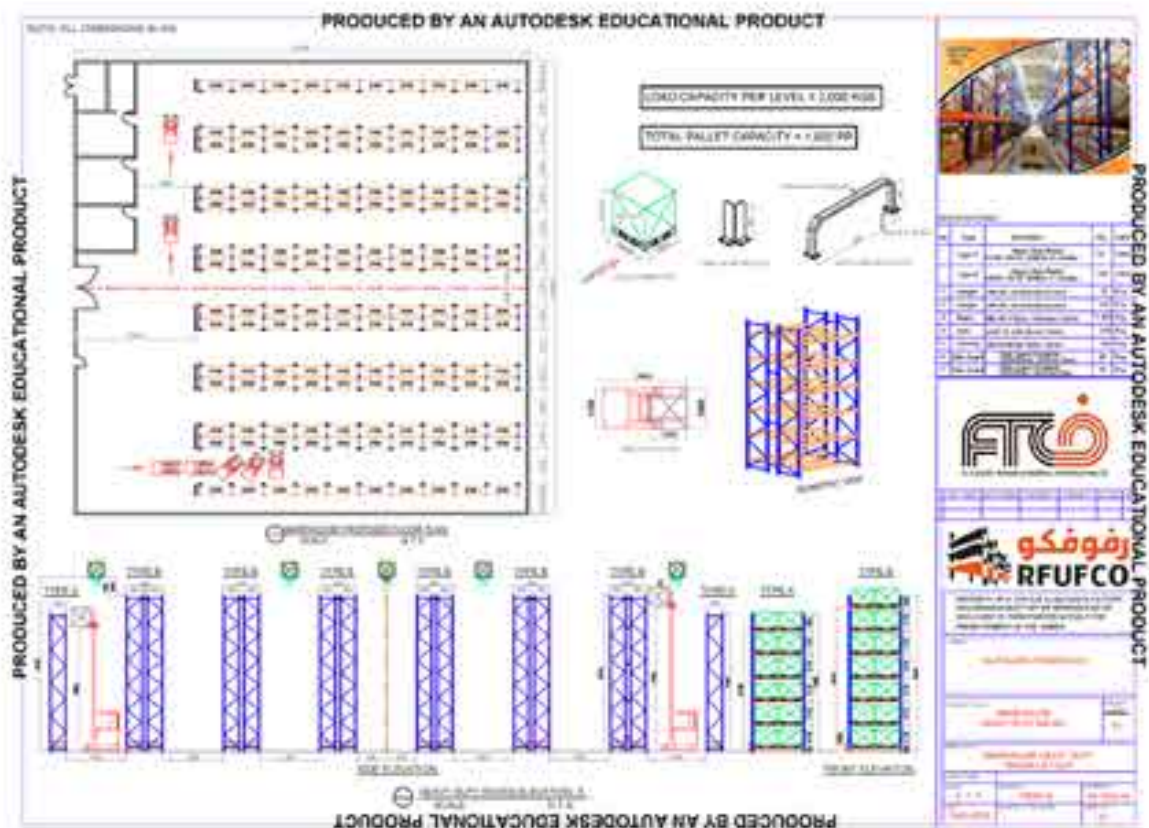
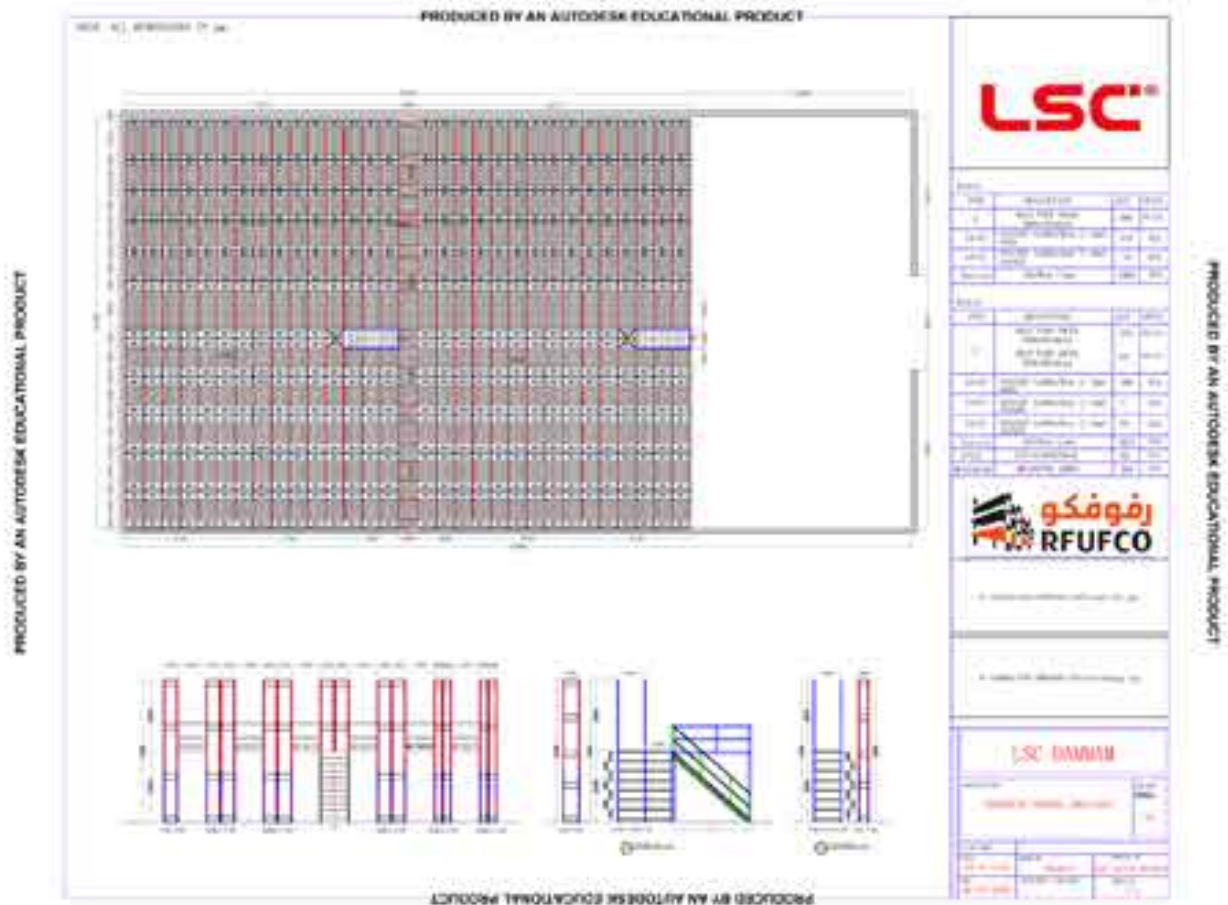
Some of finish project fixing



Some of Project Autocad Layout



Some of project Autocad Layout





Guns Racking Storage

Gun Racking Storage



Isometric view



Single Sided Stand



Double Sided Stand

Promotional Display Stand



Promotional Display Stands



RFS - 001



RFS - 002



RFS - 003

Promotional Display Stands



RFS - 004



RFS - 005



RFS - 006



RFS - 007



RFS - 008



RFS - 009



RFS - 010



RFS - 011



RFS - 012

Promotional Display Stands



RFS - 013



RFS - 014



RFS - 015



RFS - 016



RFS - 017



RFS - 018



RFS - 019



RFS - 020



RFS - 021

Promotional Display stands



RFS - 022



RFS - 023



RFS - 024



RFS - 025



RFS - 026



RFS - 027



RFS - 028

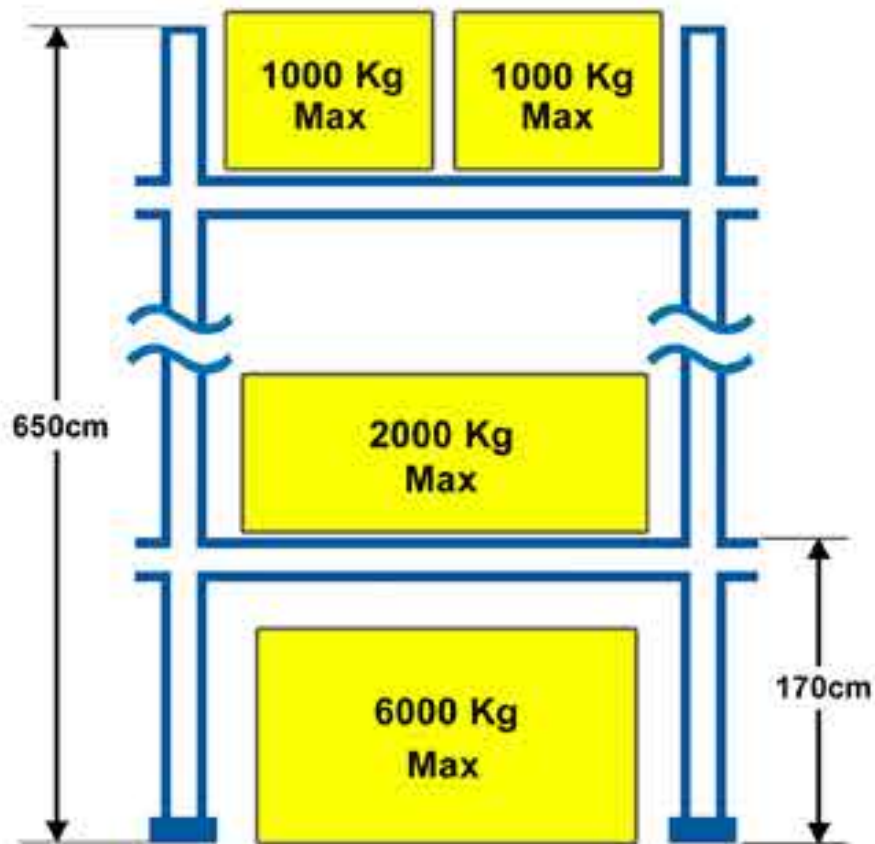


RFS - 029



RFS - 030

Interlock Racking Load Notice



Conduct regular inspections to check for:

- Correct application and use;
- Loads within allowable safe limits;
- Accidental damage, or dislodgement of Structure Components.



**DO NOT CLIMB
PALLET RACKING**



**REPORT ALL DAMAGE TO
THE RACKING SAFETY
OFFICER**



Refer To SEMA
'Code of Practice for the
Use of Static Pallet Racking'



Do not alter the structure without either:

- checking effects against
- manufacturing technical data,
- obtaining approval from supplier.



If in doubt
ALWAYS
Contact Supplier