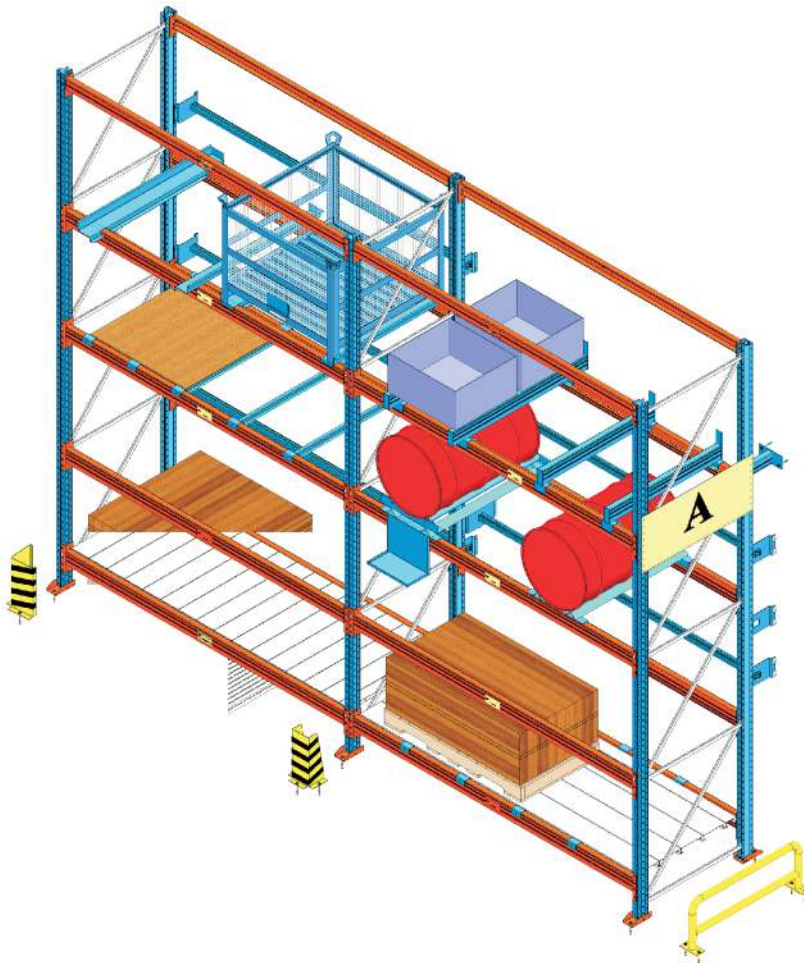


## Heavy Duty High Rise Storage Rack

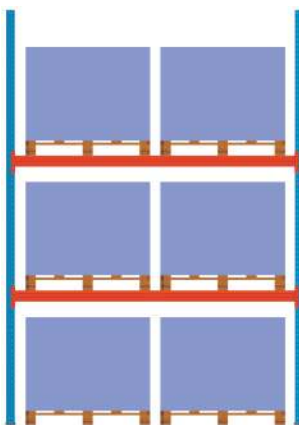


### Terminology :

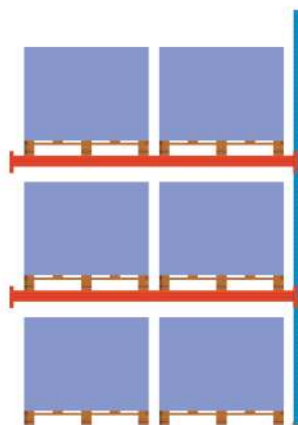
- Pallet shelving systems are used for storing mainly palletized goods.
- Pallets and containers are arranged on top of or next to one another to save space.
- It is possible to assemble the elements into single shelf units as well as large systems according to existing space and inventory requirements. The pallet shelving systems are designed to provide virtually any required load capacity.
- This is a Modular & Static Palletizing Racking System used for storing heavy loaded pallets & boxes in a systematic manner using available ground space & vertical space.
- It is an innovative and versatile design, having rolled sections of high storage capacity with a variety of storage types.
- System having design features define the stability, rigidity, flexibility, safety and ease of assembly.
- Direct access to each and every stored pallet.
- Easy to control inventory.
- Each and every pallet can be removed without relocating other pallets.

For designing the system Pallet Types & Sizes are more important for the consideration.

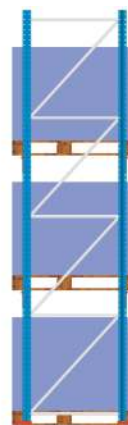
Rack consist mainly Frame, Load member & its accessories



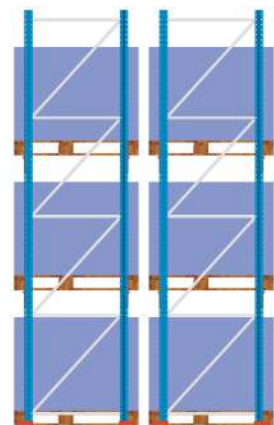
Main Module



Add-on Module



Single Row



Back to Back Row

# HIGH RISE STORAGE SOLUTION

## Upright Frame

### Upright :

- It's an 11 bends bottle section made from cold- rolled which permits addressing several required variable frame capacity.
- Equally spaced rectangular slots at 50 mm pitch, makes the system more flexible.
- It enables structural rigidity and a high load capacity of 24 Ton up to 12 meter height.

Deep Blue

RAL 5015

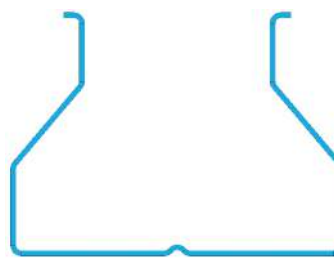
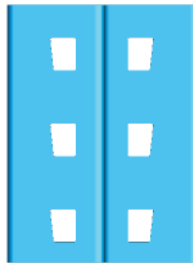
### Features :

- Optimum solution for efficient, orderly and flexible pallet and piece goods storage.
- Metal bracket height-adjustable in 50 mm increments.
- Longitudinal and traverse storage possible.
- Closed box sections ensure high stability.
- Stands consisting of cold worked profiles which are bolted on the floor on-site.

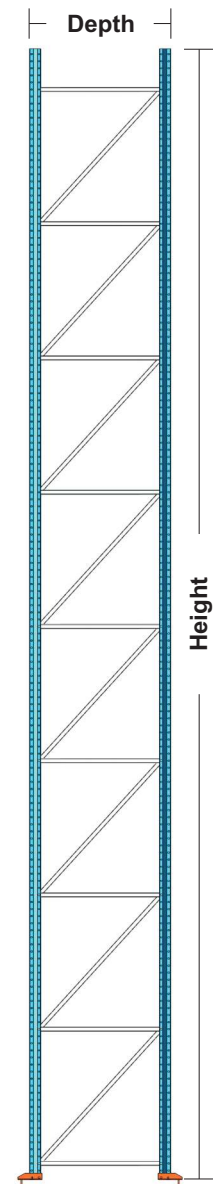
### Types : 1) 80.80 Upright



### Types : 2) 110.80 Upright



Frame Type	Frame Depth (mm)	Frame Height (mm)
F 80.80 F 110.80	600 800 1000 1200	1500
		2000
		2500
		3000
		3500
		4000
		4500
		5000
		5500
		6000
		6500
		7000
		7500
		8000



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### Shoe Plates

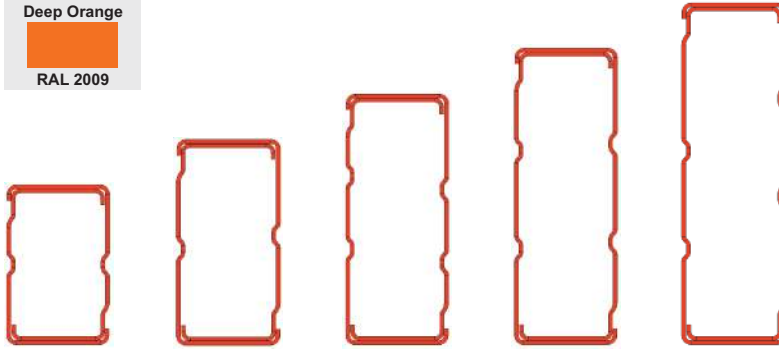
Deep Orange  
RAL 2009



- These are Deep Orange powder coated plates designed for high tensile strength.
- Where floors are uneven, complete range of packing shims ensures absolute surface accuracy.

### Load Members

Deep Orange  
RAL 2009

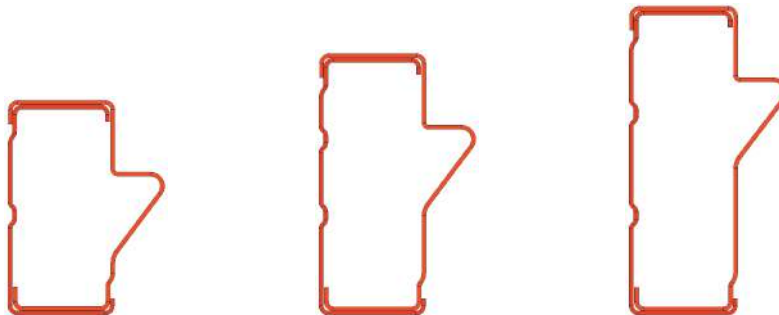


#### CC- Section

- These are Deep Orange Powder coated box type Profile section made from cold-formed coils
- Also these are a loading part of the rack connected to the frame by its connector.

#### Characteristics

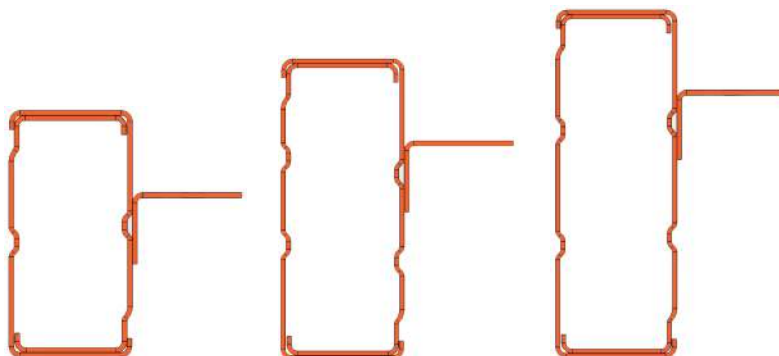
- These sections are used when the pallets having runner at its base & to be placed just on the load beams.



#### CN- Section

#### Characteristics

- These box sections are used when placing the boxes, cartons & loose items forming a shelf of Decking panel.



#### CCA- Section

#### Characteristics

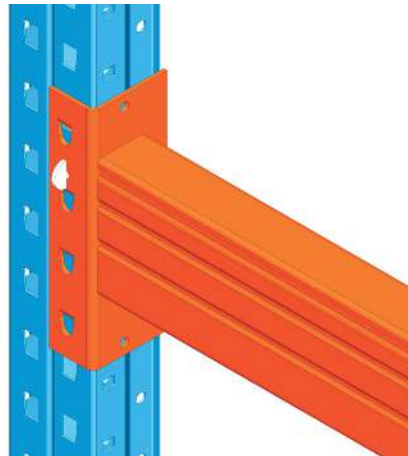
- These box sections are used when placing the boxes, cartons & loose items forming a shelf of Decking panel

## HIGH RISE STORAGE SOLUTION

Load Member	Pallet Front Size (mm) Lengthwise	Pallet qty (In No's)	Length of load member (mm)
CC / CN / CCA	800	2	1900
		3	2800
	1000	2	2300
		3	3400
	1200	1	1500
		2	2700
	1300	1	1500
		2	2900
	1400	1	1600
		2	3100
	1500	1	1700
		2	3300

### Connector with Locking Pin

- These are weld, with the load members at its either sides, for adding the structure's superior rigidity to get locked with uprights.
- Locking pin- Ø 6 x 40 mm L
- Locking pins are provided with load members for both side to prevent accident.

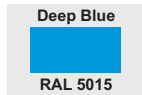


Deep Orange  
RAL 2009

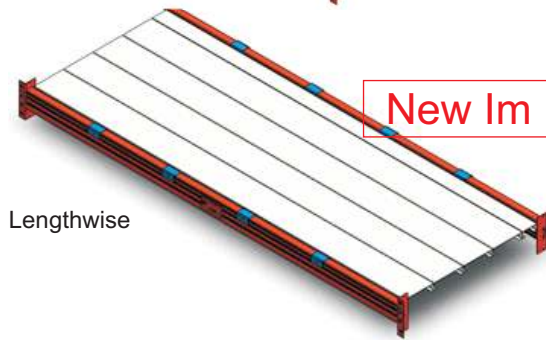
**Note :** The load is assumed to be uniformly distributed across the length of the load member.  
The maximum permissible deflection is 1/500 of the length for all load members.

## HIGH RISE STORAGE SOLUTION

### Decking Panel



Depth wise



Lengthwise

- This GI Sections of 220 mm width made from cold rolled sheets are provided when the storage is bulky or heavy, such as cardboard, boxes & cartons spread over the beams of Nose section by either parallel to load beam or parallel to the depth of rack frame.
- Decking panels provide the ideal storage for loose & small items.
- These are screwed with each other to form a strong base with bottom supports.
- Also provided with deep blue powder coated MS sheets.

Decking Panel-Parallel to Frame	Frame Depth	Decking Panel Length	Decking Panel Width
	500	395	160
	600	495	160
	800	695	160
	1000	895	160
	1100	995	160
	1200	1095	160
	1300	1195	160

### Grating



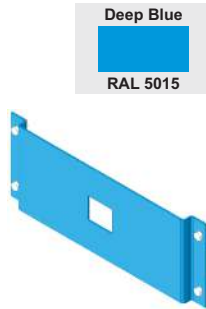
- This Zinc plated & welded bar grating is basically used when the pallets contains oil sinking material and also provides a better grip to the material
- Made by welding with flat steel and bars (Ø 8 mm), Steel bars of spacing (50 x 50) mm on both lengthwise & depth wise on 30 mm high.


## HIGH RISE STORAGE SOLUTION

### Accessories

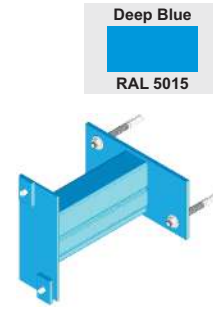
#### Frame Spacer

- This deep blue powder coated Sections of length 250 mm are used to separate & maintain the clearance between two frames where Back to Back Rows of racking are installed.
- These are mounted at every 1.5 meter height of the Rack which is necessary for Racks rigidity.



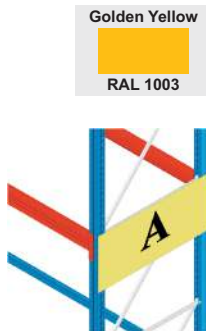
#### Wall Spacer

- This deep blue powder coated Sections of length 150 mm are used to separate & maintain the clearance between frames & wall.
- These are mounted at every 1.5 meter height of the Rack which is necessary for Racks rigidity.



#### Name Plate

- These Golden Yellow Powder coated plates are mounted on both end sides & for each row at a height of 3 me-ter of the rack for its identification.



#### Angular Name Plate

- These Golden Yellow Powder coated plates are mounted on both end sides & for each row at a height of 3 me-ter of the rack for its identification.



#### "L" Type Column Guard

- These golden yellow powder coated sections of height 400 mm & with Black Vinyl Strips are provided for protecting uprights against forklift impact in gangways.
- These are grouted with anchor fasteners & located at every end corners of rack.



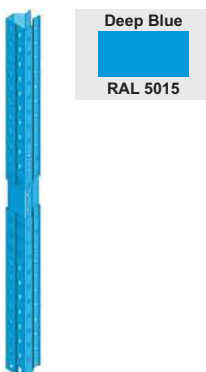
#### "C" Type Column Guard

- These golden yellow powder coated sections of height 400 mm & with Black Vinyl Strips are provided for protecting uprights against forklift impact in gangways.
- These are grouted with anchor fasteners & located at every upright exceeding corner.



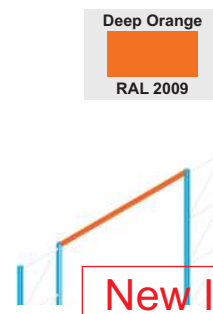
#### Frame Extension (Joinery)

- This Deep blue powder coated Sections are used to extend the heights of racks above 8 meters.
- **Size** : 500 L & bolted with the two upright.



#### Top Tie Member

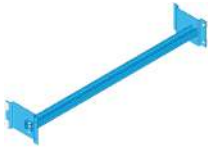
- This deep orange powder coated sections are provided for protecting racks from tilting also it provides stability of the racks by connecting each other at the top of the racks between Gangways.



## Accessories

### Single Pallet Arrestor

Deep Blue  
RAL 5015



- These are also known as pallet stopper & are mounted at back side of the rack.
- Such type of arrestor are mainly used where single row of racks are installed at every level of load member.
- These Deep Blue powder coated sections Bolted with uprights by a mounting Plate of 150 mm width & are

### Common Pallet Arrestor

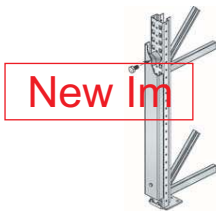
Deep Blue  
RAL 5015



- These are also known as pallet stopper & are mounted at back side of the rack.
- Such types of arrestors are mainly used where Back to Back row of racks are installed at every level of load mem-bers.
- These Deep Blue powder coated sections Bolted with uprights by a mounting Plate

### Upright Protector

Golden Yellow  
RAL 1003



New Im

- With rubber buffer, complete with assembly accessories. Surface painted in Yellow.
- Protects the lower area of the stand uprights against industrial truck damage.

### S-Type Support

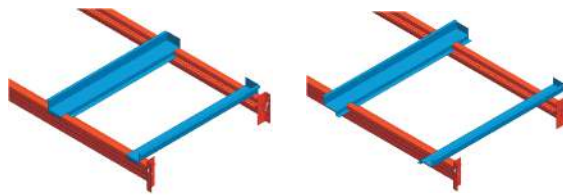
Deep Blue  
RAL 5015



- This Deep Blue Powder coated supports are necessary, when Placing pallets whose central runner are parallel to the load member and where the depth of the shelf unit is greater than that of the pallets.

### Z-Type Pallet Support

Deep Blue  
RAL 5015



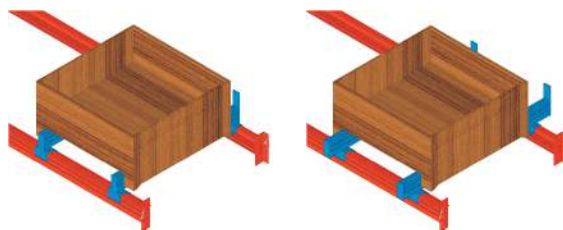
Z-200 Type

Frame Type

- a) This Deep Blue Powder coated supports are necessary, when placing pallets having 4 legs & whose pallet depth is greater than or equal to the frame depth.
- b) Back stopper of height 50 mm are provided to prevent pallet overturning.
- c) This supports are also of 2 types i.e.
  - +200 mm to the frame depth (100 mm either side).
  - Flush Type equal to the frame depth.

### Pallet Riser

Deep Blue  
RAL 5015



Z-200 Type

Frame Type

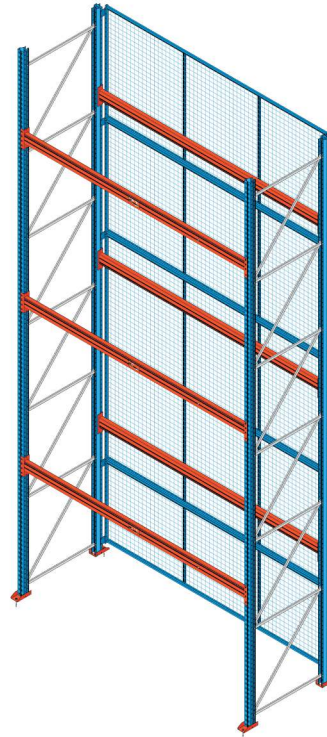
- a. This Deep Blue Powder coated supports are necessary, when placing wooden Boxes, Bins & pallets having flat base with no provision for fork entry.
- b. Back stopper of height 50 mm are provided to prevent pallet overturning & Sliding.
- c. This supports are also of 2 types i.e.
  - i. +200 mm to the frame depth (100 mm either side).
  - ii. Flush Type equal to the frame depth.

## HIGH RISE STORAGE SOLUTION

### Accessories

#### Safety Wire Mesh

- According to the BGR 234 guidelines (occupational safety regulations), shelving systems must be secured with Safety Wire mesh to prevent inventory items from falling down; this applies to traffic ways and work areas. Surface powder coated in Deep Blue, without fastening accessories.



Deep Blue  
RAL 5015

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#### Labeling for HD Racking

1. **Label versions colors** : white.  
Opposite surface normal or retro-reflective, self-adhesive or magnetic
2. **Position indication** : with one or more digits, numerical or alphanumerical
3. **Control number** : with or without, inverted or normal
4. **Barcode** : with or without, different barcode types, different label positions (left, right, top, bottom),  
with or without readable information
5. **Font colors** : black, blue, red.  
Different font heights, font types with or without serifs
6. **Spaces / Separators** : with or without, various characters
7. **Logo / Company ID** : with or without text or graphics
8. **Frame** : with or without Frame
9. **Position arrow** : with or without, indication to top or bottom, different label positions (left, right)

