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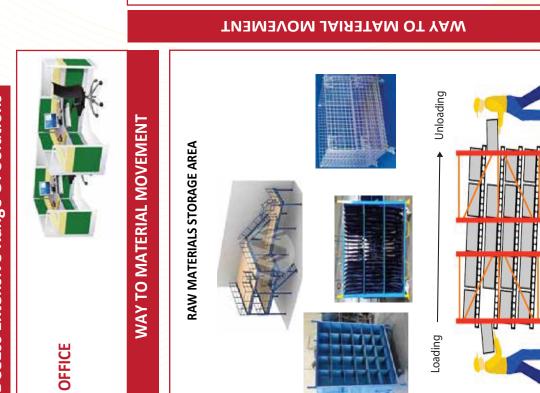


www.deeessengineers.com





# **DeeEss Extensive Range Of Solutions**













- **IIGS AND FIXTURES DIE STORAGE RACK**

**CONVEYOR SYSTEMS** 

WAREHOUSE DESIGN & CONSTRUCTION

**MEZZANINE FLOOR HIGH RACK** 

**CAGE BINS** 

**FIFO RACK** TROLLEYS

- CANTEEN REQUIREMENTS PIPING & PIPELINE
- DESIGN OPTIMIZATION SPECIAL SERVICES:

**FENCING** 

**ENGINEERING SOLUTION** EPC End to End solution provider - Storage, Industrial Packaging, Material handling, Warehouse Systems and EPC



**DOCK - 2** 











#### **WAY TO MATERIAL MOVEMENT**





 SAFETY FENCING SAFETY CHAIN

**EXPORT DISPATCH AREA** 

**PRODUCTION AREA** 

PRODUCTION AREA

BARRICADE • SAFETY

**EXPORT CONTAINERS** 

SCISSOR LIFT **HIGH RACKS** 

TRAYS

**DOCK-1** 

**ESR (EXPENDABLE STEEL RACKS)** 

Engineers India Projects Pvt. Ltd.

RETURNABLE PACKAGING SOLUTION FOLDABLE PLASTIC CONTAINERS CUSTOMIZED TROLLEYS **FOLDABLE METAL CONTAINERS** 

# Storage Solutions

- Selective Pallet Racking
- Adjustable Pallet Racking

DBR (Design Basis Report)

Concept design / Basic

Design

- Drive-In Pallet Racking
- **Push Back Racking Mobile Racking**

Design Analysis, Cost Optimization

Detailed Engineering

- **Cantilever Racking**
- **Gravity Flow Racking**
- **Rivet Shelving Rack** 
  - Mezzanine Racks ESD racks
- Cold Storage Systems
- long span storage racks
- long span shelving racks
- Medium duty racking systems Heavy duty racking systems
  - adjustable racking
    - - portable racking FIFO rack

Preparation of Bid evaluation

Vendor document review

Project management

service

Preparing of O&M manual

As-Built documentation.

Expediting

- Pipe and joint racks
  - **ESR Racks**
- Platforms Almirah

Support during Construction/

Commissioning

Site service

- Mezzanine floors
- Decking panels
  - Catwalks
- Wire decking

Pegion Racks

- Wire Shelving

# 'Mechanical, Civil, Electrical, I&C)

**Engineering service** 

# Warehouse Management

**EPC Division** 

Material handling systems

Industrial Packaging/

Warehouse, Packaging & Logistics Cost & Process Optimization & **Automation** 

Engineering, Procurement,

- Value Chain design Inplant Layout and
- IT enabled business **Material Handling**
- **Business Sustainability** process solutions
  - **Assessment**

Complete support for Tech Bid evaluation

for Quote) / Bidder list

Preparation of Layout, P&IDs

**REQ(Request** 

Contract / PO Preparation & Placement

Commercial negotiation

- Ке Real time Dash Boards of Performance Indicator (KPIs)
- Construction (EPC) 'Mechanical, Civil, Electrical, I&C) PEB
- Piping & pipeline
- Structural Works Insulations
  - ETP,STP,WTP
    - construction Warehouse

with partition

 Solar panel works constructions

# Plastic packaging Material

- · Metal, Plastic, Cloth, Vaccum 411 Type of packaging Material forming, Honeycomb
- Stretch Films, Bubble Pouches, LDPE Bags, HDPE Bags
- Returnable/Reuable/Secondary/ Contract Packaging solutions
  - Standard & Customized Bins & crates ESR - Expendable Steel Racks/ One Time Steel Packaging
- Mezzanine / platforms & Design Optimization Handrails.
- Trolleys, Pallets & Stillage
  - canteen equipments Complete kitchen/ Containers
- Customized Requirements
- Dock leveler, scissor lifts / goods
- All types of Lifting Systems

#### **Technical Specifications**

All basic structural components of the system such as frame (Assembly of upright, bracing and base plate), beam & decking panel are designed to a code of practices as recommended by European Racking Norms (EN/FEM/SEMA).

#### **DESIGN**

DEEESS uses the following standards, as applicable for design.

#### **Racking Codes:**

ANSI-MH-16.1-2008	Specification for the design testing & utilization of industrial
	steel storage racks (American)
BS EN 15512:2009	Steel static storage systems - Adjustable pallet racking
	sytems –Principles for structural design (European)
SEMA	Code of practice for the Design of Adjustable Pallet Racking(British)

#### **Structural Design Codes:**

IS 801 - 1975	Code of Practice for use of Cold-formed Light Gauge steel structural
	members in General Building Construction
IS 800 – 2007	General Construction in Steel - Code of Practice
BS 5950 – Part V	Structural use of steelwork in building - Part 5 - Code of Practice
	for design of cold-formed thin gauge sections (British)
EN 1993-1- Part 3	Design of steel structures. General rules. Supplementary rules for
	coldformed members and sheeting (European)
AISI -1996	Cold Formed Steel Design Manual –
	American Iron and Steel Institute (American)

#### **Tolerances:**

BS EN 15620 - 2008	Steel static storage systems - Adjustable pallet racking -
	Tolerances, Deformations and clearances (European)
SEMA Guideline No 2 -	Guide to Erection Tolerances for Static Racking (British)

#### **Technical Specifications**

#### **RAW MATERIAL**

Load bearing members of the system are made out of high strength HR steel having properties equivalent to grades specified by IS 2062:2011

The different types of material used for load bearing members such as uprights and beams are:

Steel type	Minimum guaranteed yield strength	Equivalent international standard
IS:2062 - E 350 / Equivalent	250 MPa	JIS 3101: SS 490 EN 10025 : S 355 JR DIN 17100 : St 52
IS:2062 - E 250 / Equivalent	250 MPa	JIS 3101: SS 400 EN 10025 : S 235 JR DIN 17100 : St 42
IS:3601 – 2006 / Equivalent IS:4923 – 1997 / Equivalent	210 Mpa	
IS :513 – 2008 / Equivalent	210 Mpa	JIS 3141

In addition to high strength, the raw material used for structural load bearing members, posses adequate ductility, to ensure toughness. The material also has the necessary impact strength for cold room applications up to -30 deg C.

#### **FASTENERS**

All fasteners used are of grade 8.8. These are with galvanized finish to suit industrial atmosphere

#### SURFACE FINISH

For long life and protection from corrosion, All Powder coated components are given a thorough anti-rust treatment. The dry film thickness (DFT) after powder coating would be on between 35-70 microns.

### **DeeEss – Storage Solutions**









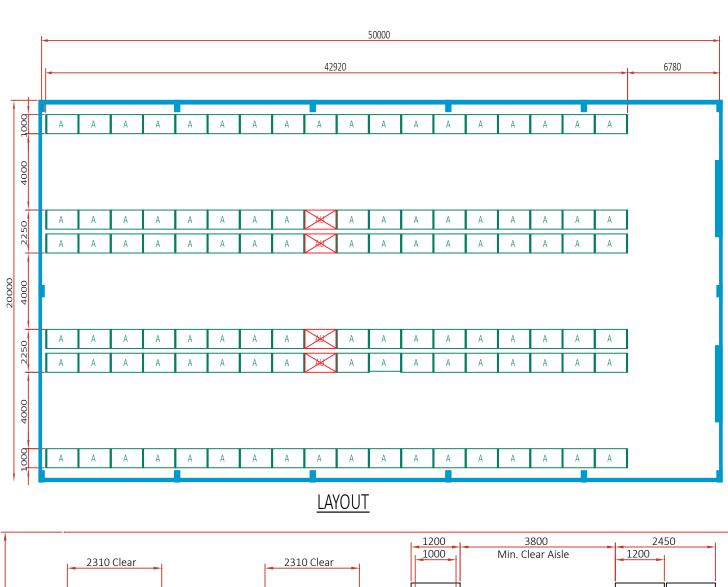


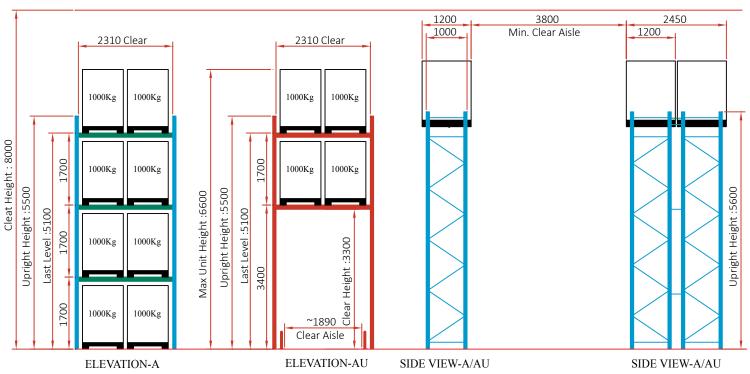




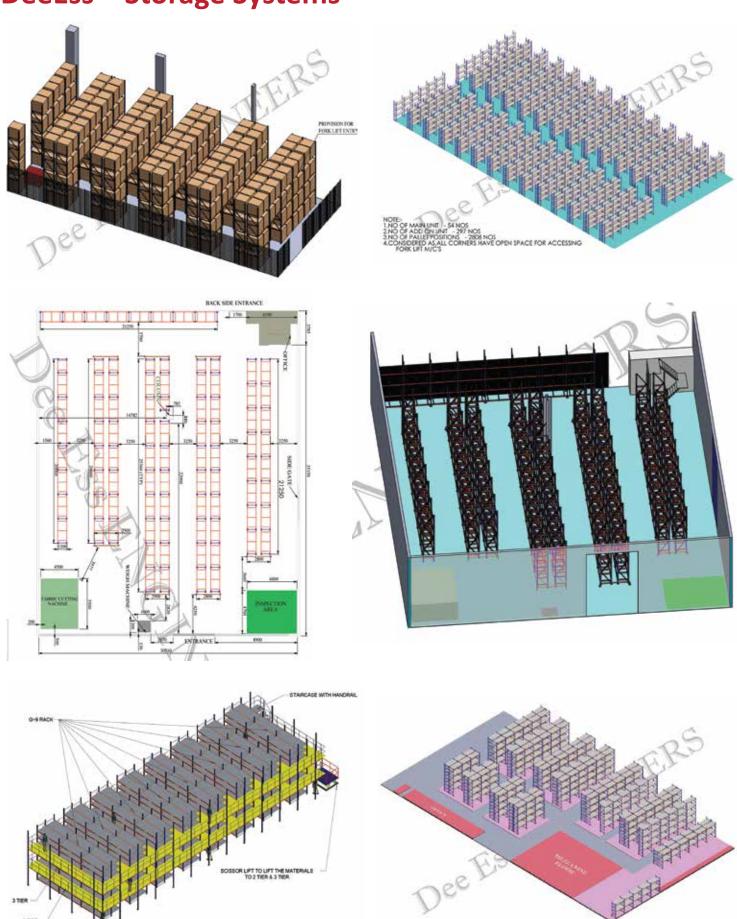


### Selective pallet Rack design

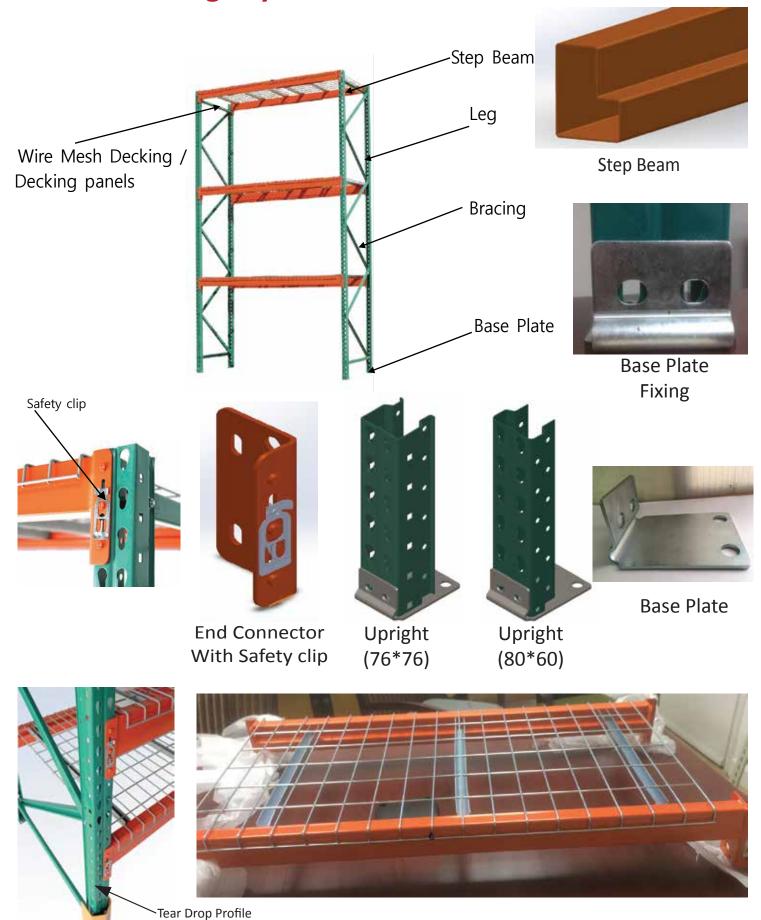




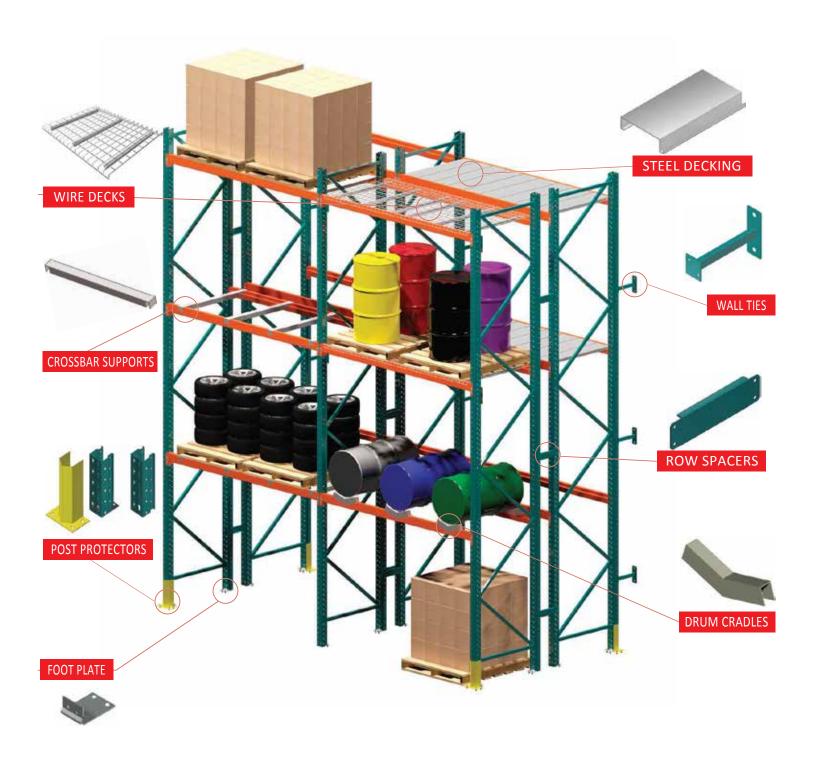
# **DeeEss – Storage Systems**



#### **DeeEss – Storage Systems**

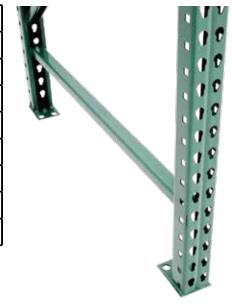


# **Selective Pallet Racking**

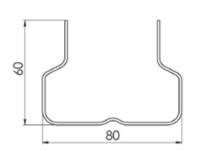


### **Tear Drop Columns -**

Upright type	32 & 33
Profile	OMEGA
Profile Width	80mm, 76mm
Profile Depth	60mm, 76mm
Number of Bend	8, 10
Beam Adjustability	50mm
Mfg Process	Single sheet Roll Forming
Finish	Powder coated/Galvanized
Color	RAL 6000 (Patina Green)

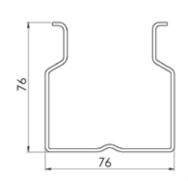


#### **Tear Drop Profile 32**





#### **Tear Drop Profile 33**





Tear Drop Column Loading Capacity (32 Profile)					
Beam Spacing	32S 32F 32E				
914	6486	7384	8283		
1066	6386	7185	8083		
1219	6187	7085	7883		
1373	6087	6886	7684		
1524	5987	6786	7584		
1676	5787	6586	7385		
1828	5688	6486	7285		
1987	5489	6287	6985		
2134	5289	5987	6686		
2286	4990	5588	6287		
2438	4690	5289	5888		

Beam spacing is the measurement fBetween Two intermediate Columns. Use whichever beam spacing is greater for determining frame capacity. Materials meet or exceed AISI / RMI capacity and deflection requirements

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Tear Drop Column Loading Capacity (33 Profile)									
Beam Spacing	Beam Spacing         33S         33F         33E         33T         33H         33B         33A								
914	7883	8981	9979	72075	13172	14470	15867		
1066	7684	8782	9780	11875	12873	14170	15467		
1219	7584	8582	9580	11576	12574	13871	15168		
1373	7385	8382	9380	11376	12374	13571	14869		
1524	7185	8183	9181	11077	12075	13272	14470		
1676	7085	7983	8981	10877	11875	12973	14170		
1828	6886	7889	8782	10678	11576	12773	13971		
1987	6686	7584	8482	10278	11077	12174	13372		
2134	6387	7285	8083	9780	10578	11675	12773		
2286	5987	6786	7584	9180	9979	10977	11975		
2438	5688	6387	7085	8582	9380	10278	11177		

Beam spacing is the measurement fBetween Two intermediate Columns.

Use whichever beam spacing is greater for determining frame capacity.

Materials meet or exceed AISI / RMI capacity and deflection requirements

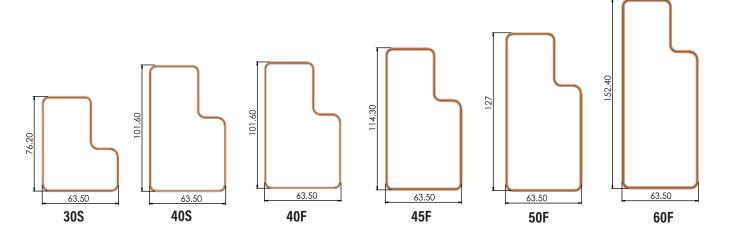
# **Step Beams**

Type of profile	Step Beam
No of Lip connector	3 & 4
Height	76, 102, 114, 127, 152.5 mm
width	63.5mm
Mfg Process	Single sheet Roll Forming
No Of Bend	6
Locking Mechanism	Safety clip
Finish	Powder Coated- Glossy Finish
Color	RAL 2000(Orange)



BEAM VARIANTS						
Length	<b>30S</b>	<b>40S</b>	40F	45F	50F	60E
MM	KGS	KGS	KGS	KGS	KGS	KGS
1219	3221	4491				
1524	1891	2845				
1829	1429	3143	3629			
2135	1248	2252	2601	3143		
2438	911	1843	2268	2806	3881	
2743	719	1456	1747	2217	3066	
3048	582	1179	1415	1798	2484	4164
3658	405	818	982	1247	1725	2892

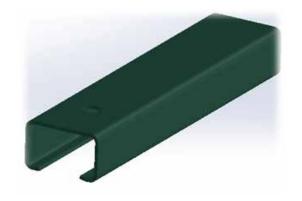
Beam spacing is the measurement from the floor to the top of the first beam level and then to the top of the next beam level. Use whichever beam spacing is greater for determining frame capacity.

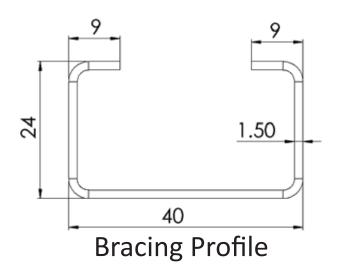


Materials meet or exceed AISI / RMI capacity and deflection requirements

# **Bracings**

Type of Profile	Lipped Channel
Profile Dimensions	40 x 24 x 9 mm
Mfg Process	Roll Forming
Number of Bend	4
Connection	Bolted Connection
Finish	Powder coated/ Galvanized
Color	RAL 6000(Patina Green)





<b>Bracing Standard Length Specifications</b>
557.6mm
801.7mm
862.4mm
1014.8mm
1034.3mm
1167.2mm
1163.6mm
1298mm
Customized length also manufactured as

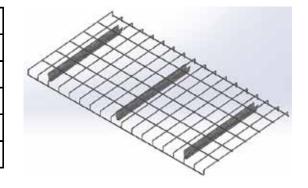




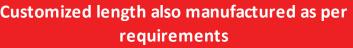
per requirements

#### WireMesh Deck

Length	1220 mm
Width	610, 914, 1067, 1168 mm
Height	25 mm
Mfg Process	Roll Forming(Bottom Profile)
Finish	Galvanized/ Powder Coated
Color	Galvanized



WireMesh Deck Specifications			
Width	Depth	Height	<b>Load Capacity</b>
mm	mm	mm	kgs
1220	635	30	1134
1220	940	30	1089
1220	1090	30	907
1220	1090	30	1270
1220	1240	30	907
Customized length also manufactured as nor			





#### Steel Deck -

Width	150/200 mm
Height	40mm
No of Bend	4 & 6
Mfg Process	Roll Forming
Connection	Interconnected
Finish	Powder Coated/ Galvanized
Color	RAL 2004(Orange)

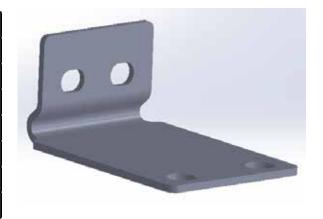




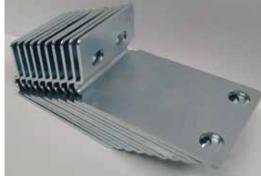


#### **Foot Plate**

Width	130 mm
Depth	89 mm
Connection	Grouting
No of Anchors	2 nos
No of Fasteners	2 nos
Mfg Process	Press Forming
Finish	Powder Coated/ Galvanized
Color	RAL 6000(Patina Green)









#### **Column Guard -**

Width	200 mm
Depth	130 mm
Height	305, 457, 610 mm
No of Bend	4 & 6
Mfg Process	Press Forming
Connection	Grouting
No of Anchors	4 nos
Finish	Powder Coated
Color	RAL 1023(Yellow)



# **Row Spacer**

Length	250 mm
Width	50.8 mm
Height	52 mm
Mfg Process	Press Forming
Finish	Galvanised

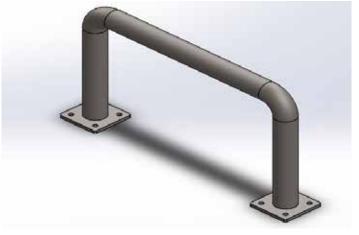




# **Row Guard**

Length	865 mm and customisable length
Height	512 mm and customisable height
Finish	Galvanised/Powder Coated
Color	

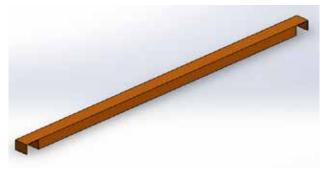




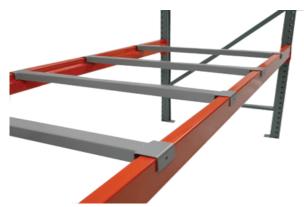


# **Pallet support**

Length	1108 mm
Width	40 mm
Height	40 mm
Mfg Process	Galvanised
Finish	Press Forming







# **Pallet Stopper**

Length	2375 mm
Height	25 mm
Finish	Powder Coated
Mfg Process	Press Forming
Color	RAL 6000(Patina Green)

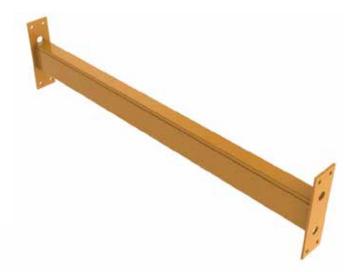


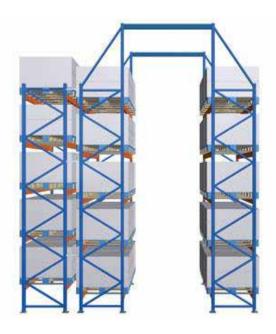




#### Aisle Tie Beam -

Length	2000 mm
Width	270 mm
Thickness	1.6 mm
Mfg Process	Roll forming
Finish	Powder Coated
Colour	RAL 2000(Orange)







**Catwalk** 





#### **Catwalk Flooring**

Catwalks Racking is a multi-level storage systems that are designed to use the vertical space in a warehouse by using catwalk aisles and employee access stairways. The storage and retrieval process is performed by the employees and eliminates the use of heavy equipment such as forklifts and order pickers.

Multi-level catwalk racking systems maximize storage density in your warehouse. Catwalk systems have narrow pick aisles, reduced cross aisles and less wasted warehouse space. These systems can be made from custom fabricated rack components or standard shelving components. Catwalk rack storage systems are composed of custom fabricated pallet rack components and provide for the maximum span and capacity.

Catwalk flooring can be made by using solid steel panels, steel grating and perforated steel deck panels.





PERFORATED STEEL DECK FLOOR



**CHEQUERED FLOOR** 



STEEL GRATING FLOOR

# **DeeEss – Storage Systems** –

















# **DeeEss – Storage Systems -**











#### **Erection Photos**

















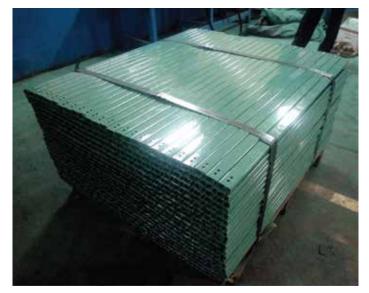
















































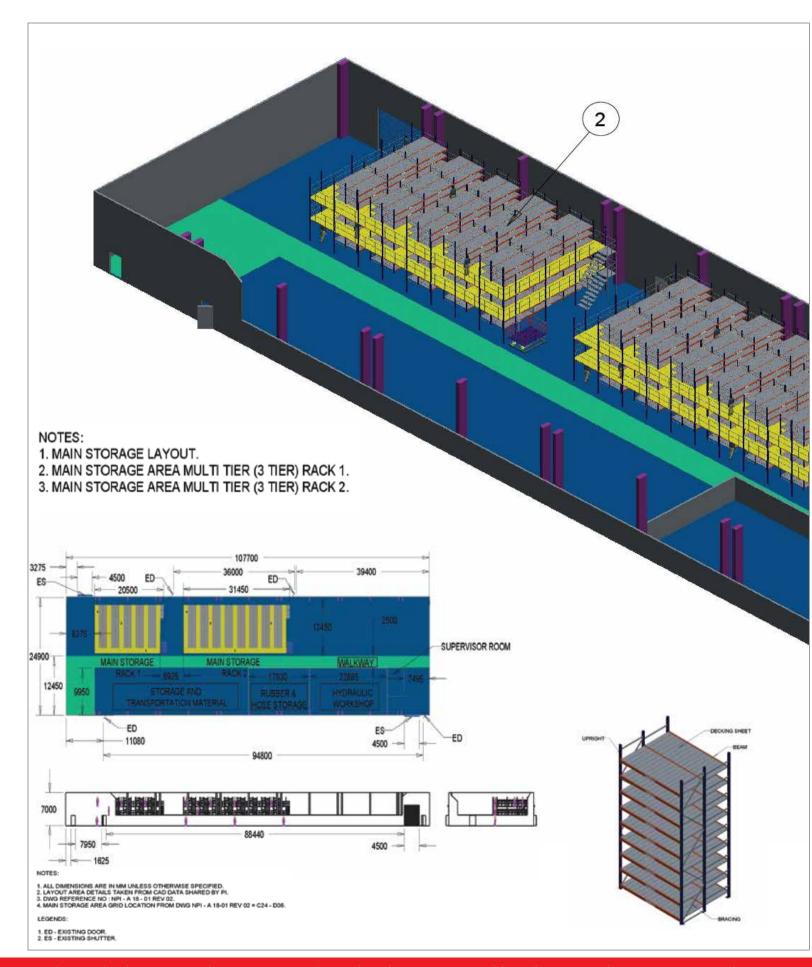




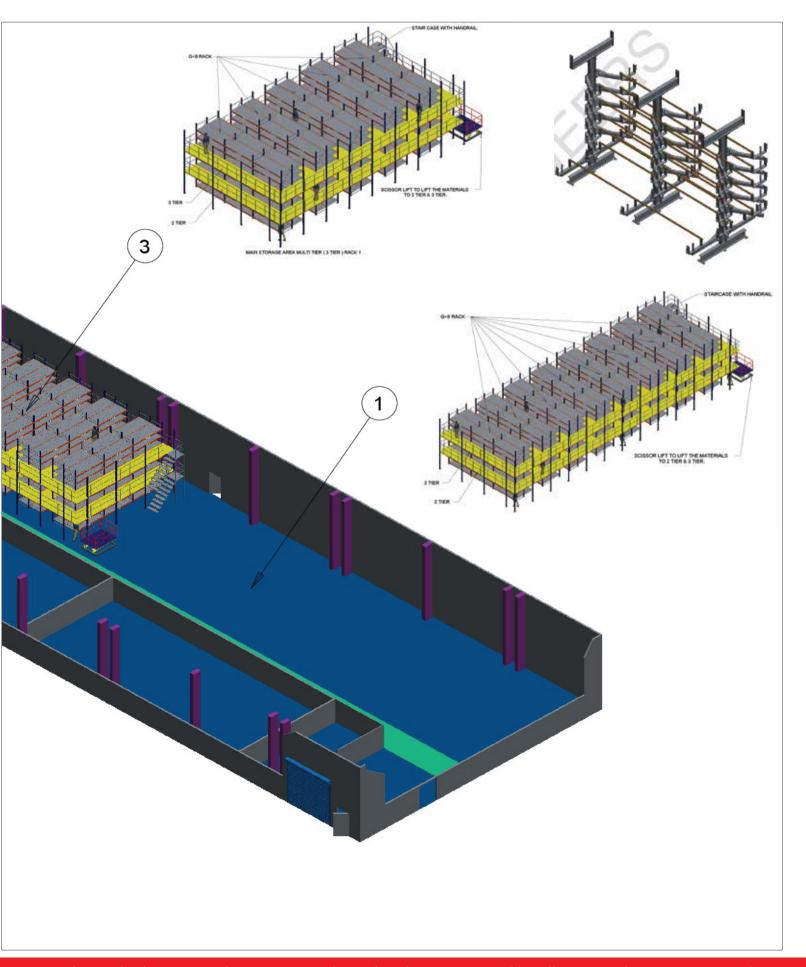




# **DeeEss – Material Handling & Storage Systems**



# **DeeEss – Material Handling & Storage Systems**



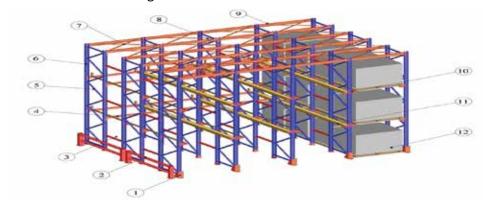
#### **DRIVE IN RACKING**

This system is base on the storage by accumulation principle, which enables the highest use of available space in terms of both area and height. Drive-in racking is designed for the storage of homogenous products. It accommodates a large number of pallets for each SKU.

Two management systems are available: the drive-in system, with only one access aisle, and the drive-through system, with access to the load from both sides of the rack. The system is frequently used in cold stores (refrigeration and freezing) which require maximum use of space for the storage of products in a controlled temperature.

#### **Benefits of Drive-in Racking**

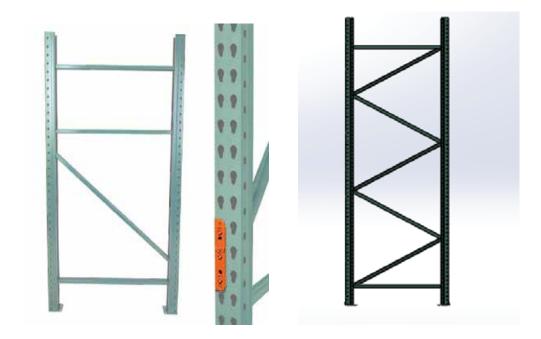
- Perfect for storing large quantities of similar sized items
- •Often used in a cold store environment
- •Suitable for FILO operations
- •Can be operated with a reach truck or counter-balanced fork lift truck
- •Ideal for bulk storage



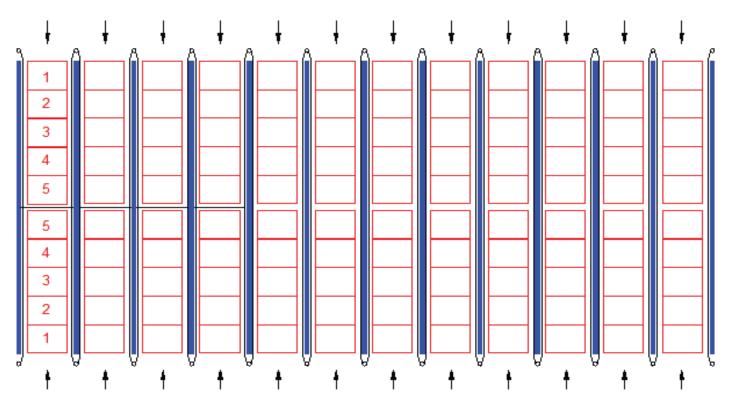
1	Upright Protector
2	Safety Guard
3	Spacer
4	Beam
5	Bracing
6	Upright
7	Top Bracing
8	Top Pull
9	Top Beam
10	Support arm
11	Guide Rails
12	Pallets

#### **FRAME**

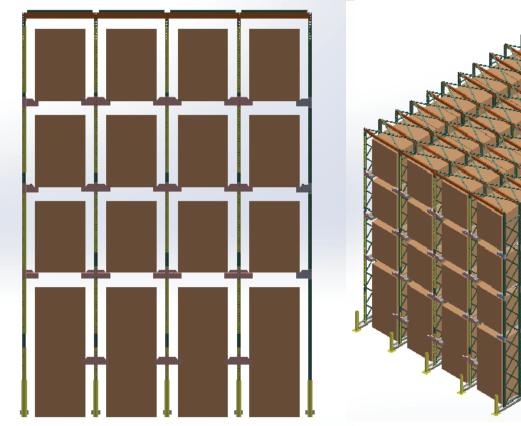
The frame is one of the basic elements of Drive in compact racking. These frames consist of 2 uprights, their corresponding diagonals, baseplates.



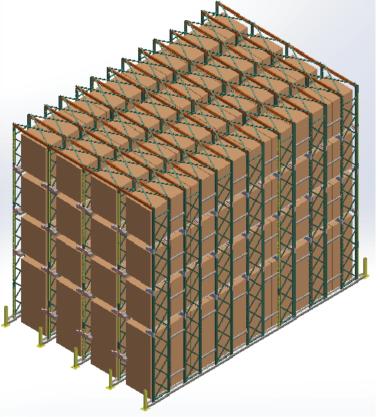
#### **DRIVE IN RACKING**



PLAN VIEW-DRIVE IN RACK SYSTEM







ISOMETRIC VIEW-DRIVE IN RACK

#### **TOP BEAM**

The top beam joins the frames in the upper area crosswise, to secure the structure by creating gantries. .The beams must be placed in all the compact racking aisles.





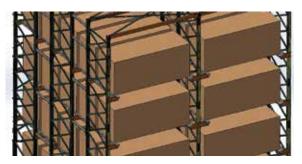
#### **GUIDE RAILS AND PROTECTORS**

Guide rail is a steel rail at floor level that runs along the whole aisle. Its objective is to guide the forklift when it enters the structure and protect it against possible impacts. It helps to separate the forklift from the Drive in compact racking.



#### PALLET SUPPORT RAILS

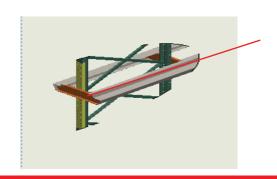
Pallet support rails are the horizontal profiles on which the pallets on each level of the Drive in racking system are supported. They are metal and are perpendicularly secured to the upright by means of the brackets.





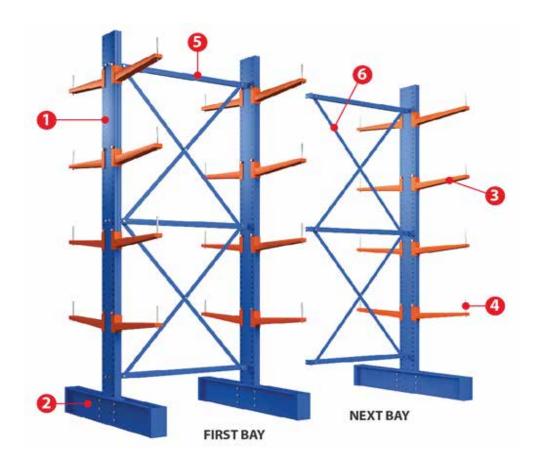
#### PALLET SUPPORT ARM

There are two types of arms, which are single arm (left side and right side single arms) and double arm. The single arm is used in each side of the racks, while the double arm is used in between.



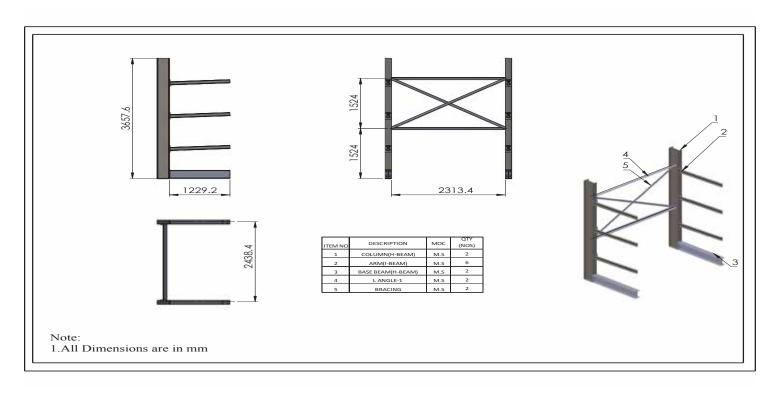
PALLET SUPPORT ARM

# **Cantilever Racking System**



- 1 Cantilever Column
- 2 Cantilever Base
- 3 Cantilever Arm
- 4 Arm Stopper
- 5 Horizontal Bracing
- 6 Diagonal Bracing

# **Cantilever-design**



#### **Cantilever Racking System**

#### **CANTILEVER RACK APPLICATIONS:**

Cantilever racking is primarily used for storage of bulky, oversized, long loads such as timber, plasterboard, steel trusses & piping, PVC carpet.

#### **CANTILEVER COMPONENTS:**

**Uprights** – Uprights are the vertical beam that supports the arms.

**Base** – The uprights connect directly into the base most commonly bolted, providing the stability and support for the uprights to bear the load.

**Arms** – Racking arms are the horizontal beams that support the load when stored. They can be set at different angles depending on storage requirements.

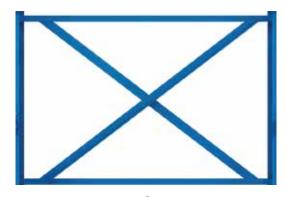
**Braces** – Braces connect and support the uprights, creating strength and rigidity







**BASE BEAM** 



HORIZONTAL BRACING&DIAGONAL BRACING

#### **ADVANTAGES**

- Relativity easy to install and reconfigure.
- •Ideal for long loads, reducing handling times and improving productivity as stock is more accessible
- •Can store products vertically up to 6 metres high.



#### **MEZZANINE**

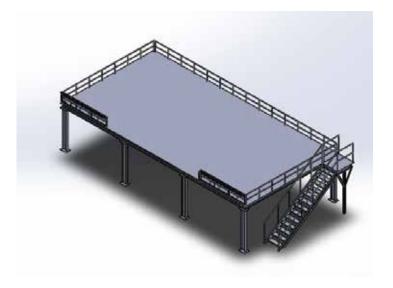
Mezzanines are efficient, quick to install and profitable, maximizing the use of a building's space while creating a distinct separation between two spaces. This optimizes space to a maximum for the least cost and without requiring a building permit. Adding a Mezzanine can be the most economical way to increase warehouse space without the cost of a conventional building expansion

#### **Advantages:**

- Multiplies surface space in industrial premises.
- Adaptable to the specific needs of the client, thanks to the great variety of sizes available, types of floors, construction systems, etc.
- Quick to assemble and easy.
- They can be complemented with a variety of shelving system.

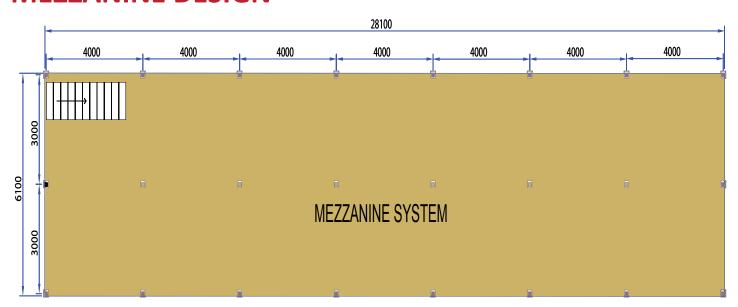




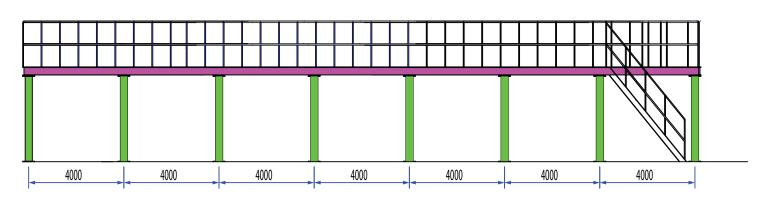


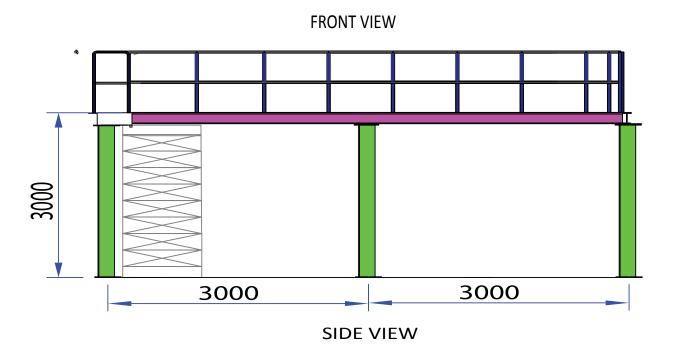


### **MEZZANINE DESIGN**



LAYOUT
PLAN VIEW-MEZZANINE SYSTEM





### **MEZZANINE FLOOR TYPES**

### **Types of Mezzanine flooring**

### 1. Wooden Flooring:

- Good strength and durability
- •Treated hardwood for mezzanine floors last for years
- Provide better acoustics
- Easy installation

WOODEN FLOORING

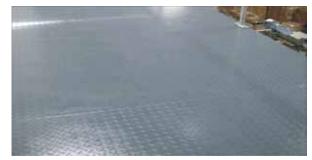
### 2. Steel decking:

- •moisture resistance, enhanced strength, and stiffness.
- •secure and solid resistance to foot traffic.
- •It is designed in a way to withstand weather conditions better than any other type of decking material.

Steel floor plate has a raised surface (Chequered steel decking), which provides excellent anti-slip function.



STEEL DECKING



CHEQUERED STEEL DECKING

### 3.Steel Grating

- •Steel grating lets light, air, heat, and other fluids pass through the surface of the deck.
- •durable, strong, and low on maintenance.

Steel Grating comes in two variants. They are Steel grating and Perforated steel grating



STEEL GRATING FLOORING



PERORATED STEEL GRATING FLOORING

#### **ACCESSORIES IN HAND RAILS**

### 1.Swing Gate

The Swing Gate allows for incredibly convenient opening and closing for mezzanine access. The swing gate system can be provided in single or double swing gate design. The Swing Gate will be designed to swing inward in order to ensure employees can safely operate the system atop the mezzanine deck.





1.SWING GATE

### 2. Sliding gate:

Similar to Swing Gates, our Slide Gate acts as a handrail until the mezzanine needs to be loaded or unloaded, but then the section can be rolled along the edge of the adjacent railing. This gate type allows for a convenient opening while not restricting the work area.





2.SLIDING GATE

### 3. Up and Over Gate

The up and over gate is operated with a swing mechanism, that insures the operator is always safely behind a barrier as the gate is opened and closed. This type of gate offers complete edge protection at all times.





3.UP AND OVER GATE

#### **STAIRCASE**

Straight stairs are stairs without any changes in direction. On longer flights of stairs, a landing is inserted to break up the flight.







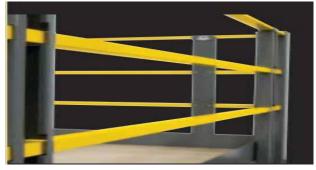
2.STAIRCASE WITHOUT LANDING

#### **MEZZANINE HAND RAILS**

All mezzanine floors require edge protection for health and safety purposes on all exposed edges. Edge protection is a critical part of any mezzanine floor design, as they need to be secure and robust. Most people will reach out for a handrail when ascending or descending stairs, and having a suitable handrail can help to reduce accidents by supporting individuals in regaining their balance if they slip or fall.



HAND RAILS



### **GOODS LIFT**



Warehouse goods lift is used in to move materials from one floor to the other e.g from the mezzanine, rack storage in warehouses, supermarket etc.Mezzanine goods lifts are suitable for both indoor and outdoor use, flexible and quick to install. They are highly customizable, enabling users to fit their goods exactly to meet their needs and requirements.

### SCISSOR LIFT \_\_\_

Scissor lift is one of the most frequently used aerial work platforms which is required to work at heights safely. It is useful to perform not only various tasks such as cleaning and painting, but also it is used in many construction and industrial installation applications

Scissor lift is commonly used to work in narrow spaces where one has to move around at heights in order to perform various tasks safely



#### **CHUTE**

Chutes are ideal for load transfer from level to level quickly and efficiently without interrupting the conveyor process. The spiral design would guide the speed of the material, thereby allowing it to pass every level at a constant speed. There are ideal to used in multitier structures with more than one level.







SPIRAL CHUTE



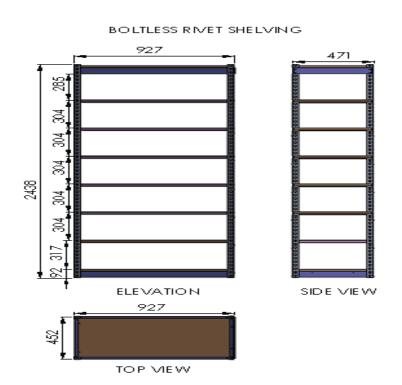
### **RIVET SHELVING**

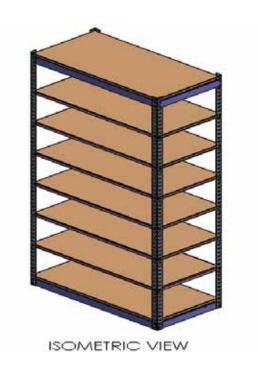


One of the most popular storage solutions that we offer is our Boltless Rivet Shelving. With a wide range of sizes, capacities, and design layout options, it is perfect for both warehouse and office applications.

#### BENIFITS OF RIVET SHELVING

- Boltless
- Easy Self Assembly
- Economical & Flexible
- Finished in Attractive Colors.
- Interchangeability of parts
- Provides clear Access from all sides





### **RIVET SHELVING**



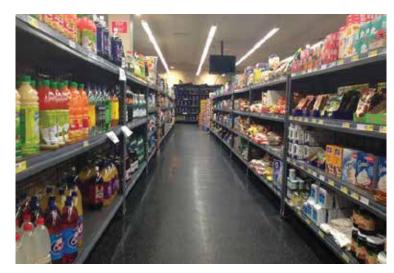


### **RIVET SHELVING APPLICATIONS**









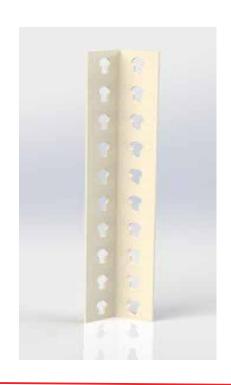




•Used as upright post for standard rivet shelving units

Length	Customisable
Thickness	2 mm/1.8 mm/1.6 mm
Finish	Powder Coated





### **DOUBLE RIVET BEAM**

- Double rivet beams are used to establish unit stability and provide shelf support on all sides.
- Provides higher capacity than single rivet beams but uses more vertical space between shelves.

Double rivet beam					
mm	Inch	mm	Inch		
305	12	762	30		
381	15	914	36		
457	18	1067	42		
610	24	1220	48		
1524	60	2438	96		
1829	72				





#### SINGLE RIVET BEAM

A single rivet beam is primarily used as an intermediate shelf support when maximum vertical space between levels is needed and/or capacity is less.

Single rivet beam				
mm	Inch	mm	Inch	
305	12	762	30	
381	15	914	36	
457	18	1067	42	
610	24	1220	48	





### **DECKING**

•There are various types of decking that can be used on shelving such as particle board, wire decking, steel decking, etc.

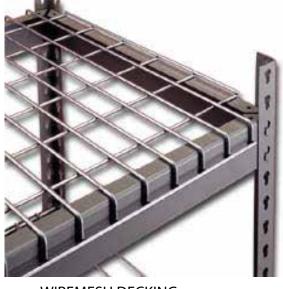
wire decking - great balance of support, load capacity, and cost.

Board decking- for lighter loads

Steel decking - for maximum durability, easy to remove



PARTICLE BOARD DECKING

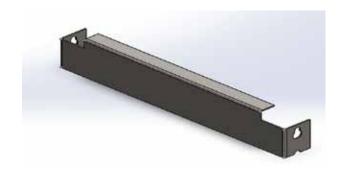


WIREMESH DECKING



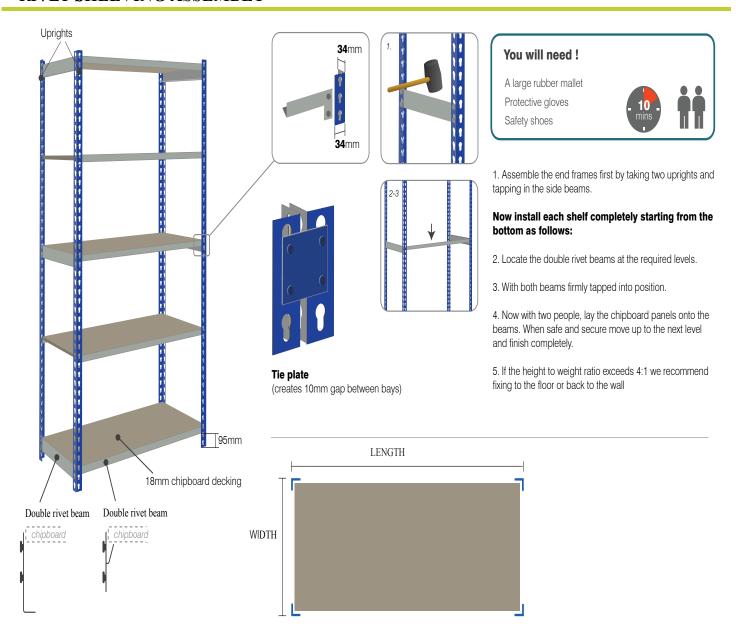
STEEL DECKING

### **CENTER SUPPORT**



 Used to provide additional shelf support front-to-back by bolting between double rivet beams at prepunched locations.
 Ideal for wider spans.

#### RIVET SHELVING ASSEMBLY



### **RIVET SHELVING-PACKGAGING**













End to End solution provider - Storage, Industrial Packaging, Material handling, Warehouse Systems and EPC



### PRE-ENGINEERING BUILDING(PEB)

Pre-Engineered Buildings (PEBs) are the building components which are manufactured at a factory and assembled on site. Usually PEBs are steel structures and can be an alternative to conventional structural steel buildings

They are environmentally friendly and can be aesthetically designed with unique features. An estimated 20-30% can be saved on cost, as compared to conventional building

#### **ADVANTAGES**

- Reduce construction time
- Standard Light weight flexible frames
- Erection time is faster.
- Flexible of expansion.
- Significant saving in design, manufacturing and site erection cost.



# PRE-ENGINEERING BUILDING(PEB)





#### WAREHOUSE PEB STRUCTURE





PARKING SHADE PEB STRUCTURE





INTERIOR PEB STRUCTURE

### **DeeEss – Construction**











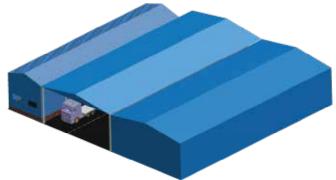






## **DeeEss – Construction**

















# DeeEss - Material Handling & Packaging Systems





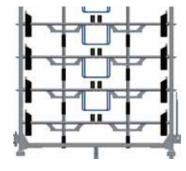
































# Manufacturing Expertise —————

























# **Events & Conference**



### **Customers - Partial**



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