



Silova

TORNVIG CHRISTENSEN
MASKINER A/S

Storage Systems

Pallet Racking

The Strength of Simplicity

We design, calculate and manufacture storage systems, going from the most basic to the most sophisticated and advanced solution.

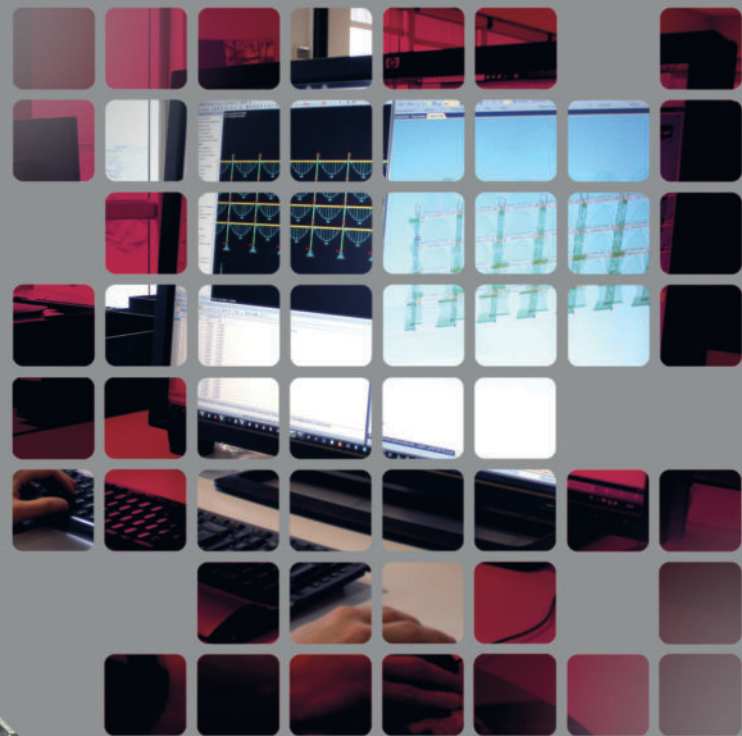
We guarantee the quality of our processes creating reliable products, to satisfy our customers storage needs.



Esnova Racks S.A. Head Office and Manufacturing Plant - 46.600 m²

INNOVATION

Innovation to develop new products and optimizing the existing ones.



LD

EXPERIENCE

We have a team with extensive experience in the logistics and handling industry.



TECHNOLOGY

Our machinery at your disposal.
We are equipped with the most flexible and advanced production systems.



QUALITY

Quality as a priority standard is established on each and every process Esnova develops.

The group invests in quality and safety and also promotes environmental respect.

- Quality management system certification (ISO 9001).
- Environmental management system certification (ISO 14001).
- Occupational health and safety management system certification (OHSAS 18001).
- CE marking certification acc. UNE EN 1090.
- Member of the European Federation of Material Handling FEM/AEM.







Pallet Racking

Ideal system for storage of palletized loads of multiple references.

- Direct access to every palette.
- It withstands heavy loads and reaches great heights.
- Adapts to your needs of storage-level area, dimensions, weights and volume of the goods.



PALLET RACKING SYSTEM

Industrial shelving system suitable for palletized goods of **multiple references**.

Characterized by being selective, it allows **immediate access** to all the loading units with no need to move or displace the other pallets, which favors the warehouse stock controls.

It is adaptable to the type of load to store, as they can be different sizes, containers, drums, pallets, it can be combined with shelves for picking, manual storage, pallet-drawers... It keeps the loads perfectly organized.



This is the storage option most universal and versatile that exists on the market, thanks to a wide range of products and accessories that facilitate the storage of all kinds of goods.

Furthermore, it's compatible with different models of lift systems (electric counter-balanced forklift, reach truck, stacker, bilateral tower, trilateral tower and trans-elevator).



Pallet racking system **adapts to any storage need**, and can have, for instance, double depth in the installation or allowing steps through thereof, etc...

The shelving with double depth allows us to keep a larger number of pallets thanks to the elimination of the center aisle. This option is recommended for products with various pallets by reference, as it's only possible to access directly to the first placed pallets.

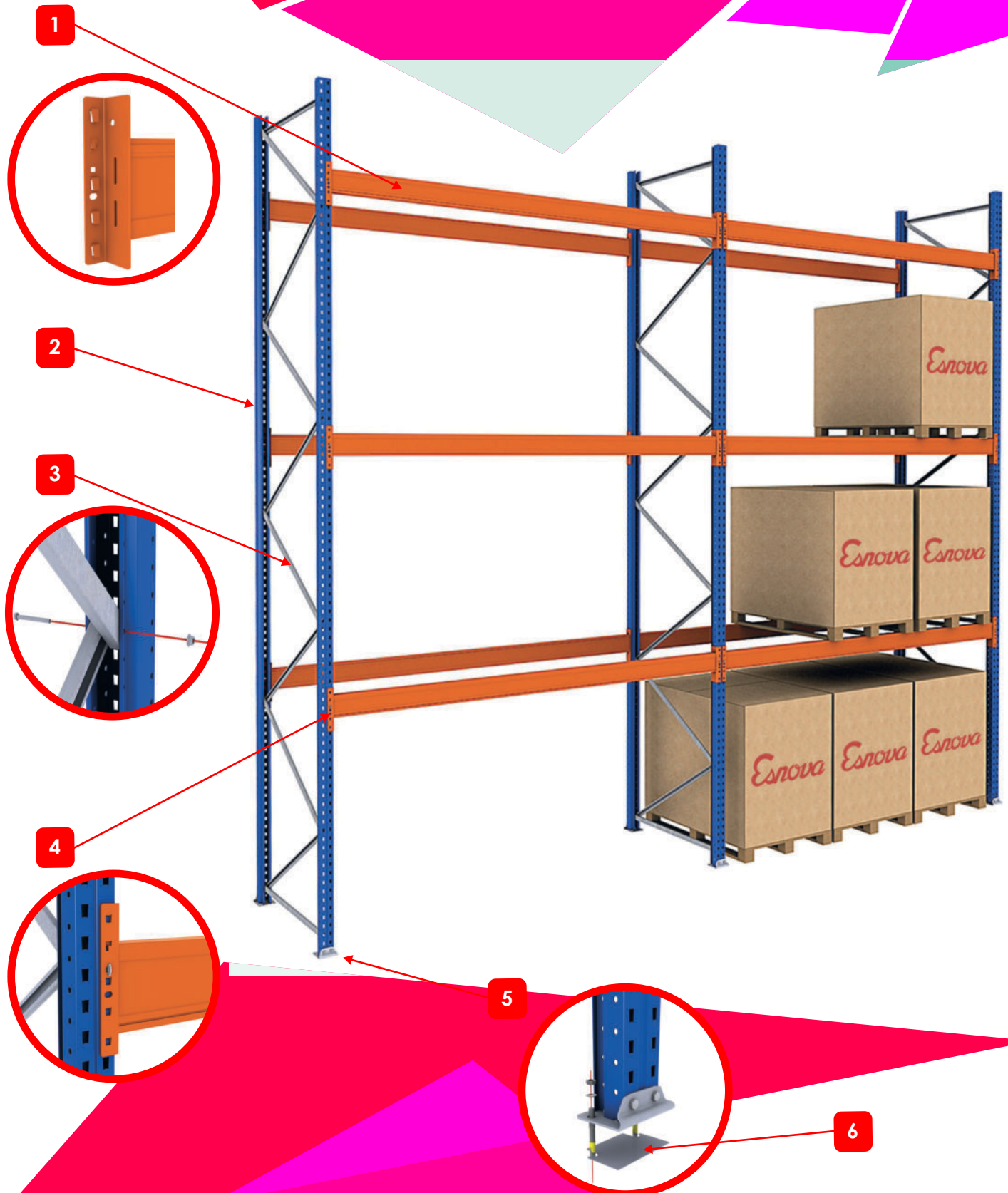


Being modular, **the installation is quick and easy**, as well as the replacement of parts and every types of expansions. You will be always in time to make changes in the installation according to your needs, allowing at all times the most suitable distribution.



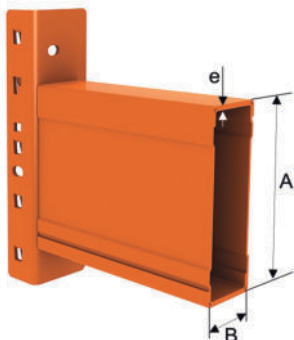
SYSTEM COMPONENTS

The structure of a Pallet Racking shelving consists of the following elements:





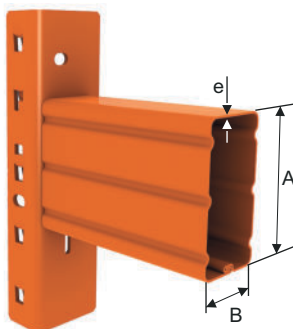
EGN BEAM
FOR DUO CONNECTOR



Dimensions* (A x B x e)	Connector
EGN 135x50x1,5	DUO
EGN 140x50x1,5	
EGN 140x50x2	
EGN 150x50x1,5	
EGN 150x50x2	
EGN 165x50x1,8	

*Dimensions in mm.

LNS BEAM
FOR DUO CONNECTOR

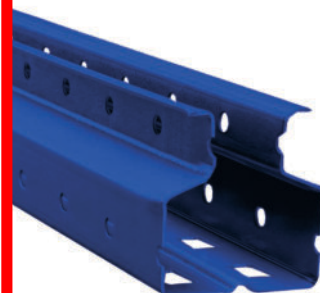


Dimensions* (A x B x e)	Connector
LNS 60x50x1,5	DUO
LNS 80x50x1,5	
LNS 100x50x1,5	
LNS 110x50x1,5	
LNS 120x50x1,5	
LNS 130x50x1,5	

*Dimensions in mm.

Best Performance up to
2700 mm beam length
and 1000 kg/pallet weight.

Standard finishing
Orange 2004



UPRIGHT ER

Standard finishing
Pregalvanized
Blue 5019

Medidas: ver página siguiente



HORIZONTAL
DIAGONAL GZ

Standard finishing
Pregalvanized



SAFETY
CLIP

Standard finishing
Pregalvanized

PLK5



NBP4



FOLDED BASE
PLATES

Standard finishing
Pregalvanized

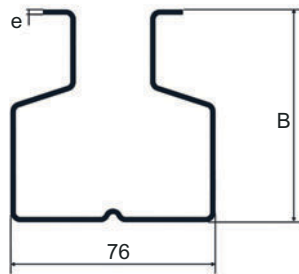


SHIM
PLATES

Standard finishing
Pregalvanized

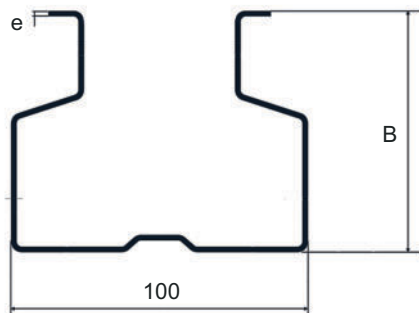
TYPE OF UPRIGHTS

UPRIGHTS 76M Y 76A



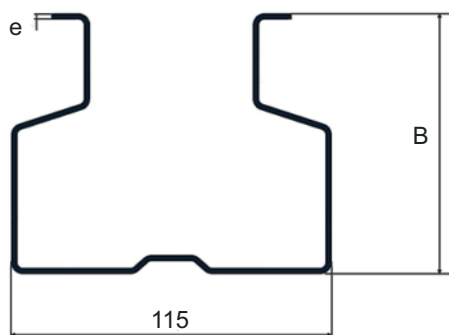
Description	Dimensions (76 x B x e)	Frame profile	Base
ER76M18	76 x 63 x 1,8	CZ 36	NBP4 PLK5
ER76A18	76 x 79 x 1,8		
ER76A20	76 x 79 x 2,0		
ER76A25	76 x 79 x 2,5		

UPRIGHTS 100A Y 100B



Description	Dimensions (100 x B x e)	Frame profile	Base
ER100A18	100 x 81 x 1,8	CZ 42	PLK5
ER100A20	100 x 81 x 2,0		
ER100A25	100 x 81 x 2,5		
ER100B20	100 x 105 x 2,0		
ER100B25	100 x 105 x 2,5		
ER100B30	100 x 105 x 3,0		

UPRIGHTS 115C



Description	Dimensions (115 x B x e)	Frame profile	Base
ER115C25	115 x 126 x 2,5	CZ 50	PLK5
ER115C30	115 x 126 x 3,0		
ER115C35	115 x 126 x 3,5		

Frames

Depth (mm.)	800* - 900 - 1000 - 1100*
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*Standard Depth

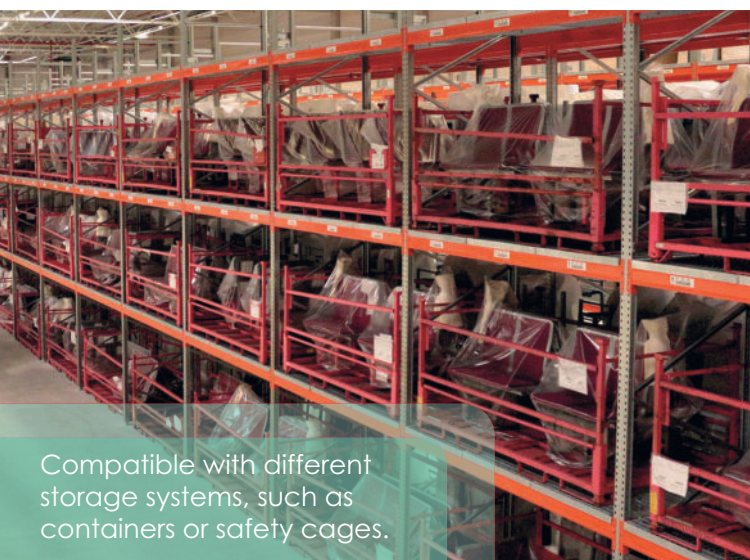
Finishing

Painted: Blue 5019

Pregalvanized



The load can rest on pallets, metallic mesh, chipboard, pallet supports...

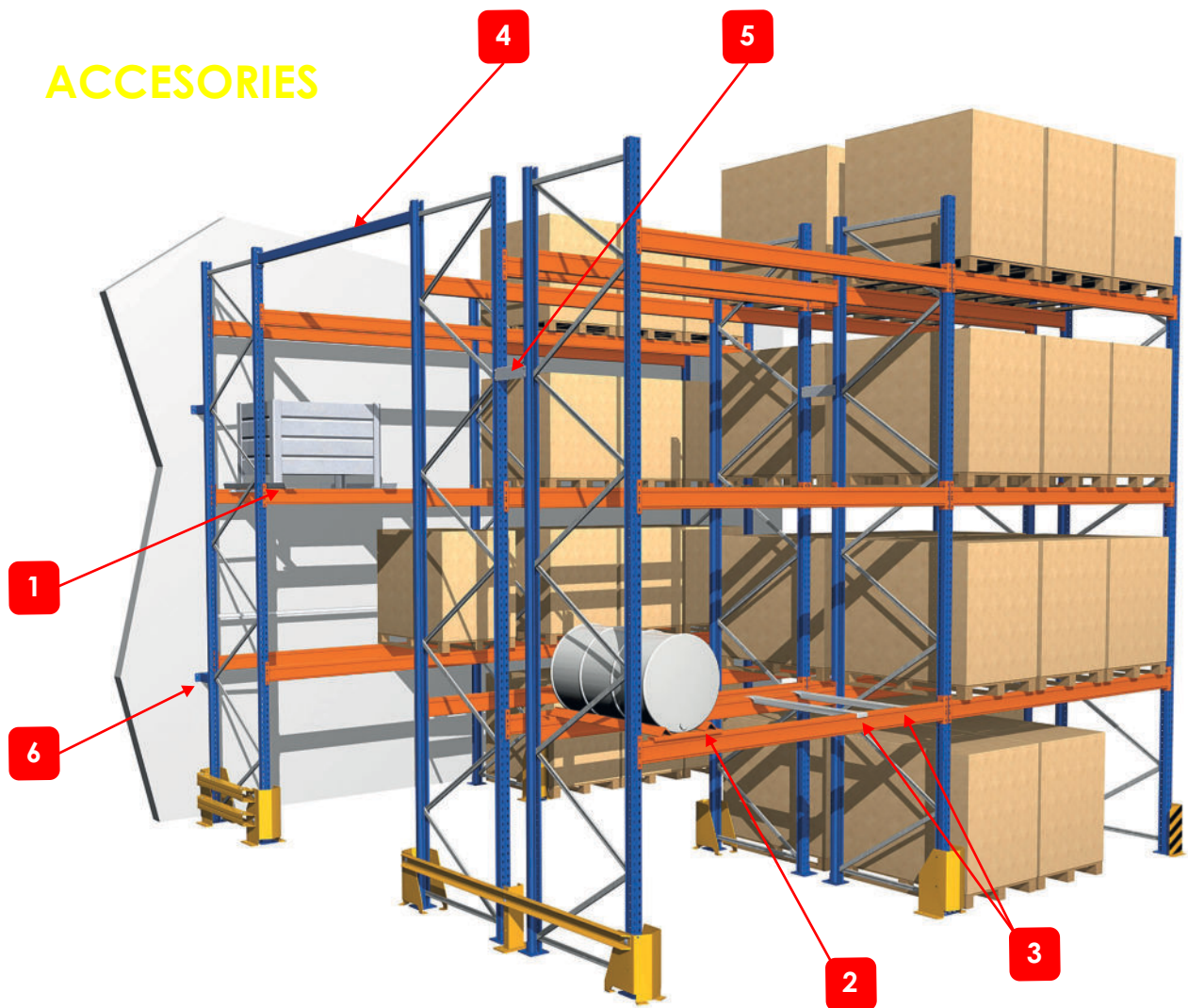


Compatible with different storage systems, such as containers or safety cages.



We adapt to your storage needs.

ACCESSORIES



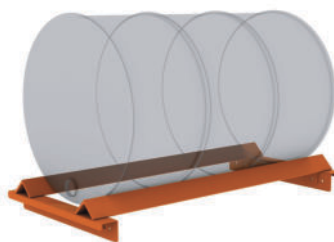
Container Support SC

1



Drum Cradles SB

2



Pallet Support

3

Mod: TPCZF

Mod: TPCZ

Mod: TPCZF-A
For chipboard fixation



Aisle spacer

4

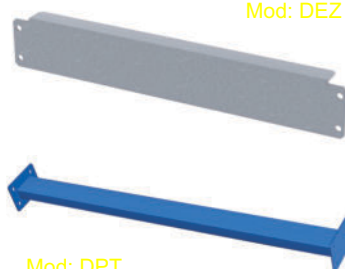


Mod: VTS

Frames spacer

5

Mod: DEZ



Mod: DPT

Wall spacer

6

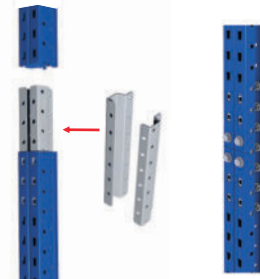


Mod: DWT

Back Stop LTC



Frame Splice



Example for upright ER76

Pallet Stop

To fix chipboards on beams.



Chipboards Stop

To be used with Crossmembers type TPCZF.



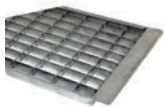
Horizontal Bracings



Vertical Bracings

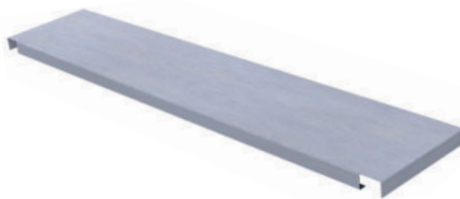


Shelf Grating (between supports)

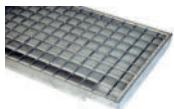


Steel Pannels PMRK 4

Pregalvanized
For EGN beams



Shelf Grating (over supports)



Pallet-Drawer

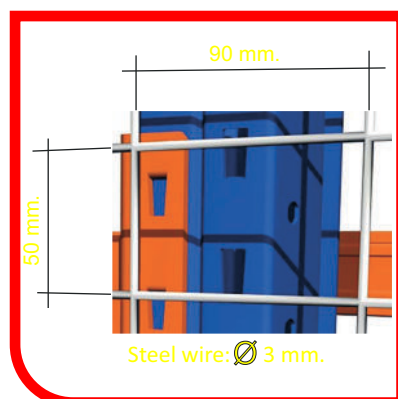
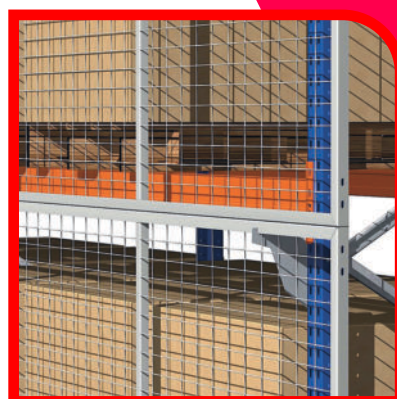


Picking levels

For manual storage:
- With chipboard
- With metal panel M66

ANTI-COLLAPSING MESH

Electrowelded mesh pannels are used as security closings in aisle or transit areas to avoid goods from falling.



PROTECTIONS

Single Protection RKN



Corner Protection DE



Single Protection PPN



It does not take space from storage cell

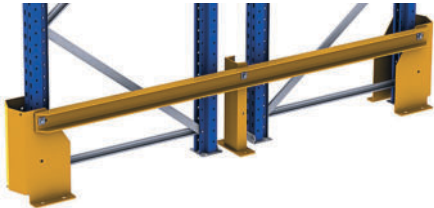
Full Frame Protection PBS RKN/U



Full Frame Protection PBS PPN/U



Full Frame Protection PBD RKN/U



Full Frame Protection PBD PPN/U



Full Frame Protection PBS RKN/C



Full Frame Protection PBS PPN/C



Full Frame Protection PBD RKN/C



Full Frame Protection PBD PPN/C

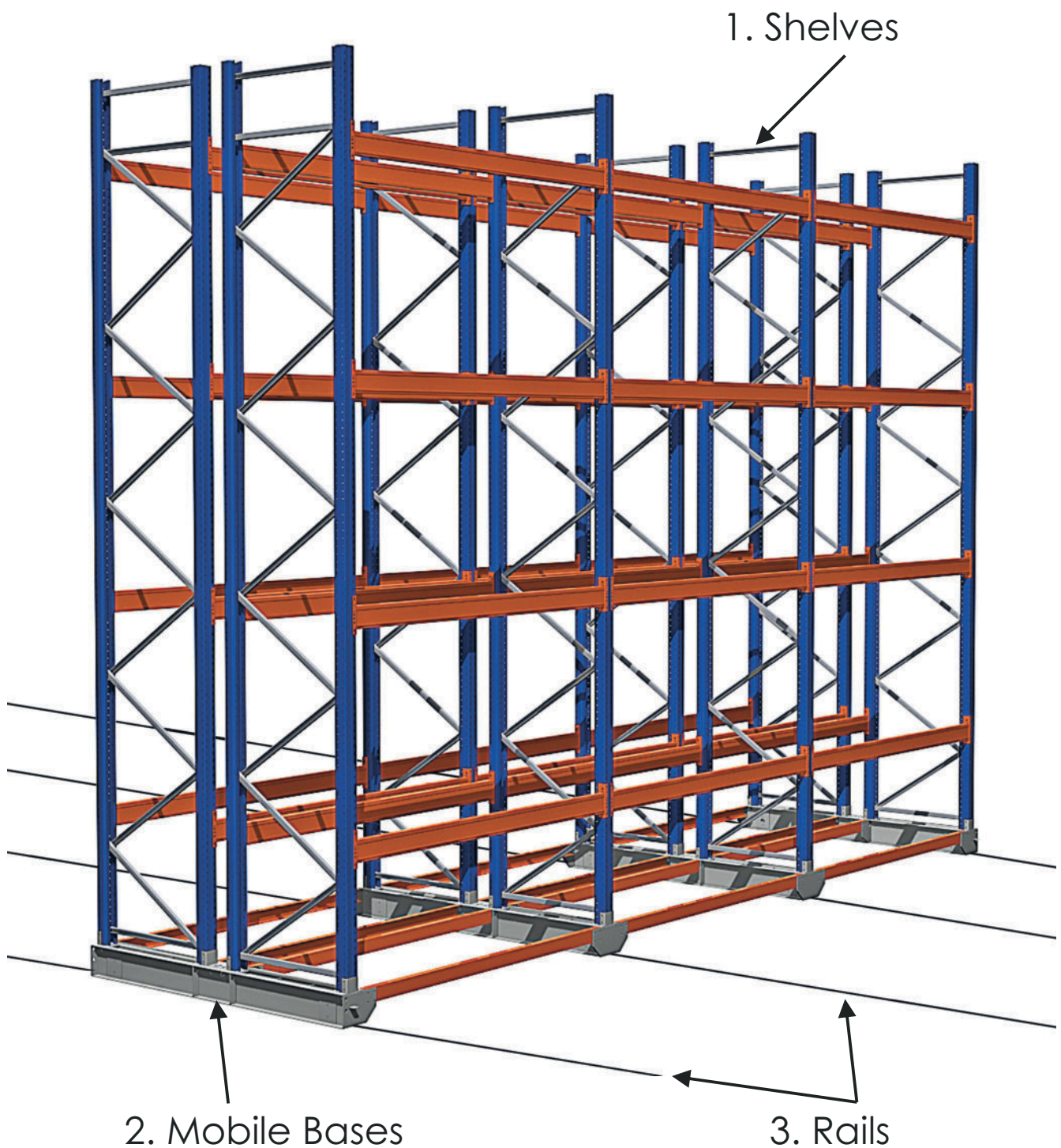


Timber frame protector



Mobile Pallet Racking

A Storage system with mobile bases is composed of single or double entry runs placed on a mobile metallic structure, which allows the movement of the shelves independently.



SYSTEM COMPONENTS

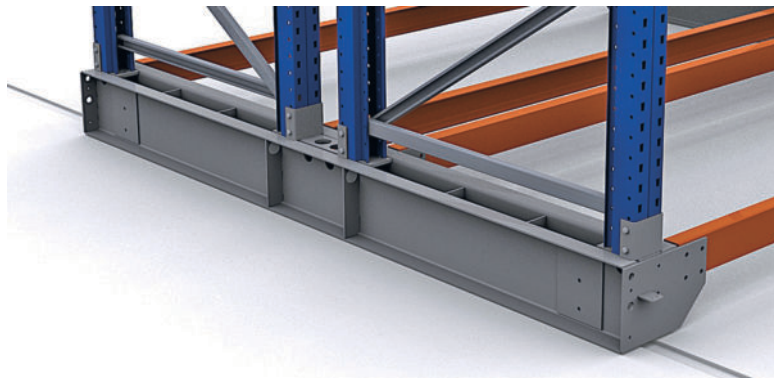
1. Shelves

This storage system is the metallic structure mounted on the mobile bases, and they are usually standard pallet racking, which is usually used to sustain heavy loads.



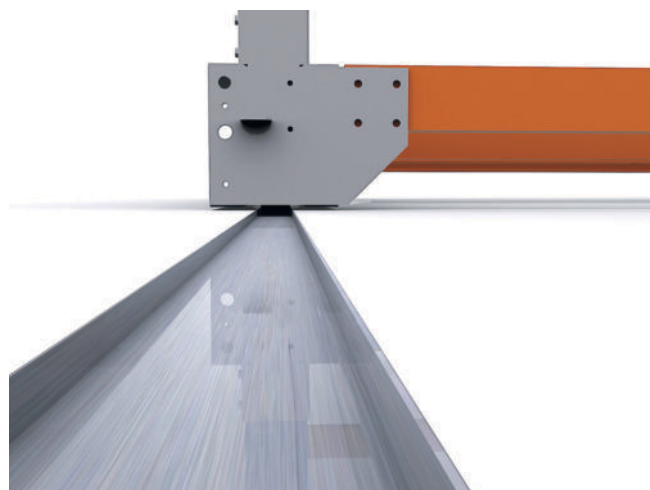
2. Mobile Bases

It is the metallic structure supported on wheels where the shelves are mounted, and they allow the movement of those racks.



3. Rails

Those are the steel profiles inserted in the floor whereby the wheels of the mobile bases move through.



MAIN FEATURES

When the reduction of the space is the main criterion or necessity when developing the required storage solution, this option with mobile bases is the most adequate.

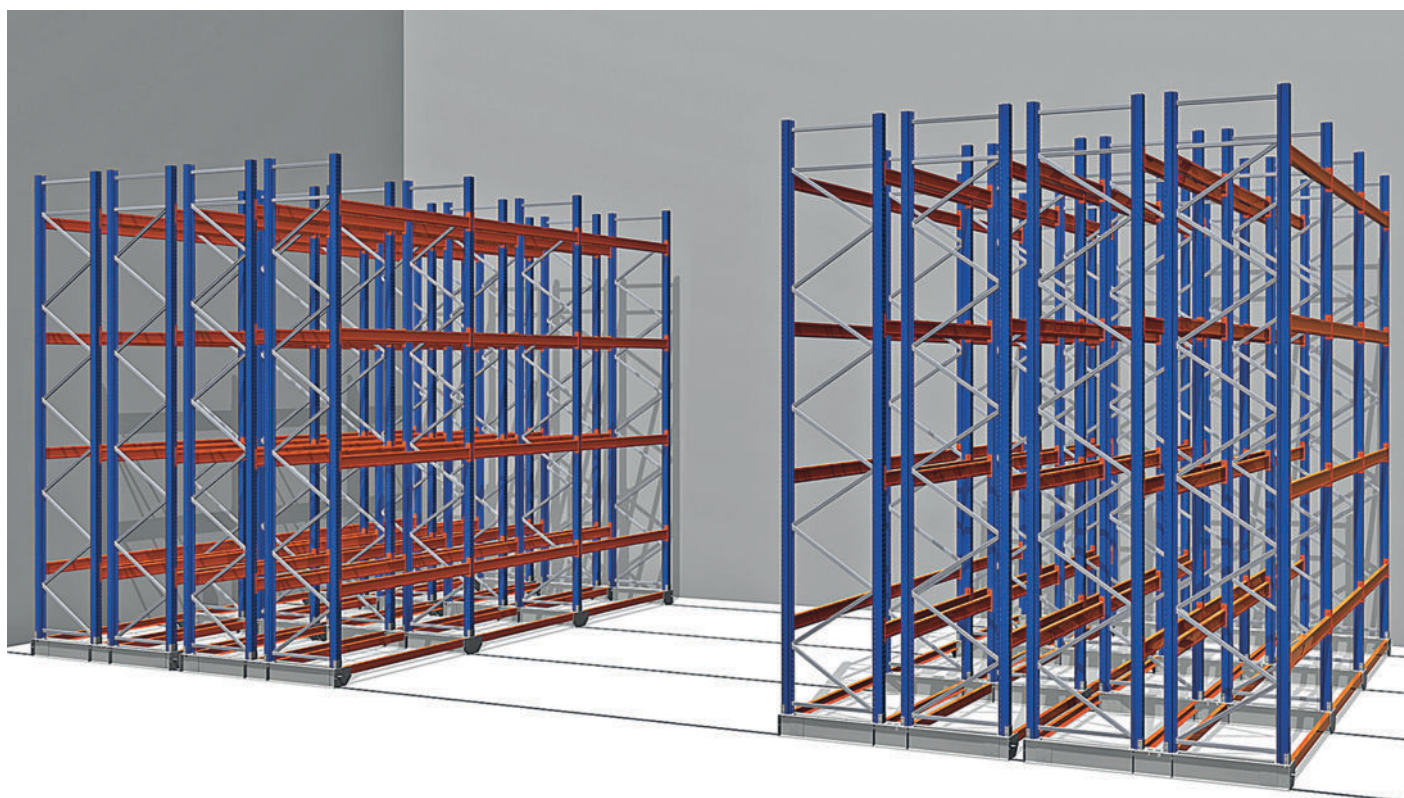
A pallet rack with mobile bases is the ideal system for cold stores (for both refrigerated and frozen goods) where the cost of storage (frozen cubic metre) is too high, since this system allows the maximum use of the space possible.

This system with mobile bases increases the storage capacity and reduces the free space in the warehouse by eliminating the aisles except one and by allowing the direct access to each pallet.

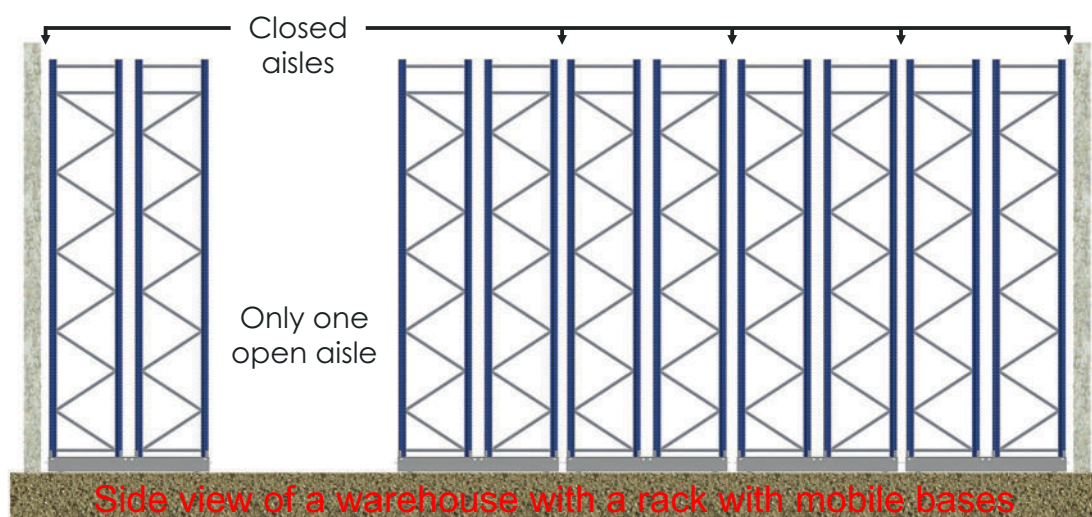
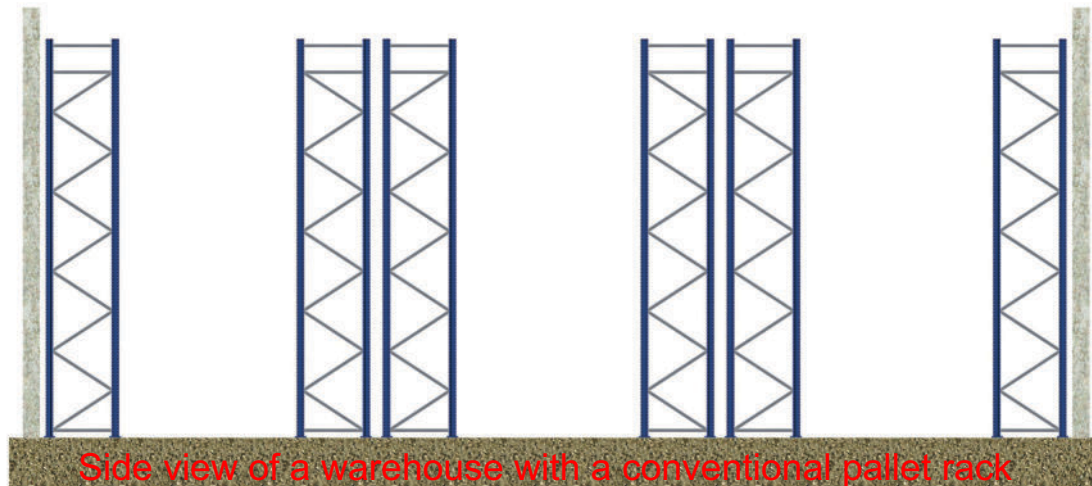
It is very simple in terms of its use, since the shelves are installed on the mobile bases, which allows the movement of each run laterally through the rails fixed to the floor, thus avoiding the existence of unnecessary aisles, but always having direct access to each pallet or store goods. The aisle which needs to be accessed is selected manually or by remote controller.

This system allows the storing of a huge number of different references, and it is compatible with other storage systems such as picking in bottom levels.

It also guarantees the safety of people working there and the preservation of the goods in good conditions.



The main advantage of a mobile base racking against a conventional pallet racking system is the possibility to use efficiently the space to store goods in a warehouse, since the existence of those mobile bases let the reduction of aisles considerably, which can be aimed to store more goods.



Master/individual control panel and Safety. These mechanisms ease the movement of the different runs of shelves by leaving free the space to act as the aisle for this particular run. Safety devices used to avoid the crushing or entrapment of operators when each run is being moved.

Esno

TORNVIG CHRISTENSEN
MASKINER A/S



Ask for our product catalogs!

Light and Medium Loads:

Manual Rack
Riveto Shelving System
Slotted Angle Shelving

Large Loads:

Pallet Racking
Drive In
Shuttle Cart
Cantilever
Rack Clad Building
Robotized Systems

Handling:

Containers

Safety

Modular Guards

Esno
SOFTWARE

Warehouse Management Software:

How to organize a warehouse?

This software specially designed to the warehouse management is the perfect IT tool to have a logistic control of your storage space.

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Management System
ISO 9001:2008
ISO 14001:2004
OHSAS 18001:2007
EN 1090

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