



Mobile Pallet Racking



Storage Solution From
Your Reliable Warehouse Partner



Utilise every inch of your storage area

The Mobile Pallet Racking (MPR) system is a cutting-edge storage solution tailored to meet the high-density storage requirements of diverse customers. It features a pallet racking structure supported by a mobile undercarriage system that travels along rails installed on the floor, suitable for both new and existing buildings. The motorised undercarriage, operated by programmable PLC units, guarantees precise and efficient movement while maximising storage space utilisation by creating a single open aisle at any given time. Equipped with a user-friendly remote control - our MPR solution ensures effortless system operation and movement.

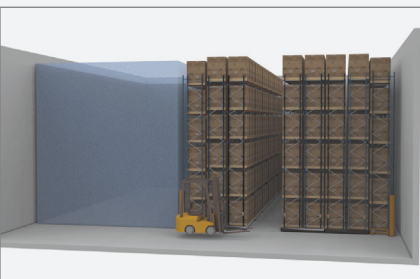
Specifically designed for cold room environments, our indigenous MPR solution offers an extensive array of accessories, prioritising safety through specialised features to protect both stored items and operators during seismic activity.

Comparison with SPR



Selective pallet racking

- Total storage area: **575 m²**
- Number of pallet positions: **1150**
- Floor space used: **74%**



MPR - Increased capacity

- Total storage area: **575 m²**
- Number of pallet positions: **2022**
- Floor space used: **74%**
Store **80 %** more pallets in the same space



MPR - Reduced storage area

- Total storage area: **575 m²**
- Number of pallet positions: **1150**
- Floor space used: **46%**
Store the desired pallet qty. in only **46 %** of the space compared to **74%**

Modes of Operation

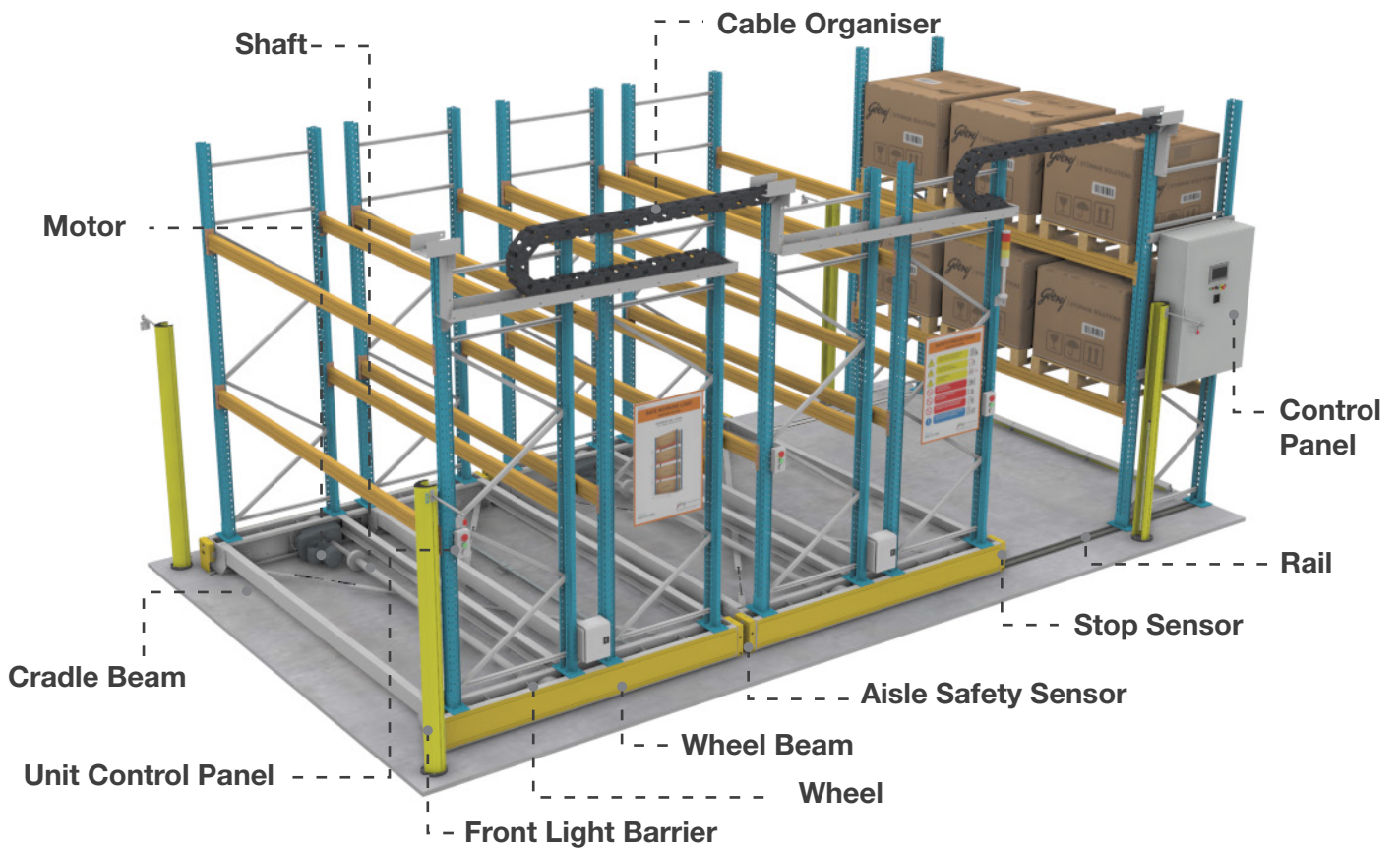
- **Semi-auto mode :**
The system will start with aisle check acknowledgment + aisle selection and stops automatically.
- **Remote mode :**
The system will start with aisle check acknowledgement+ aisle selection through remote and stops automatically.
 - **Aisle check** - For safety reasons check any person present in the aisle.
 - **Required aisle** - Select the required aisle number in the remote.
- **Emergency mode (Manual Operation) :**
Used in the event of a safety sensor error. This mode will operate without any safety features.
- **Inch mode (Manual Operation) :**
Used in the event of front sensor error. This mode will operate without a front safety light curtain.

Note:

Emergency mode and Inch mode should be used only for maintenance purposes.

Benefits

- A dense storage system with 100% selectivity
- Maximizes space utilisation by eliminating fixed aisles
- 80% increase in storage capacity over conventional racking
- 40% increase in operational area
- Compatible with any MHE for easier operation
- Suitable for Pharma, F&B, Chemical and Paints, Manufacturing and Cold storage segments



Range

Bay Load	Upto 30 Tons
No. of Under Carriages	Upto 14
Length of Under Carriages	Upto 70 Meters

Features



Operating temperature:
-30° to 45° C



Max load on carriage:
700 tonnes



Carriage speed:
4-5 m / min



WMS Integration



Noise level:
< 70 DB



Maximum height:
upto 12m

Special Features

Ventilation Mode : Creates an environment for better aeration of the SKU stored by creating equally spaced aisles. Enables efficient water distribution during fire emergencies.

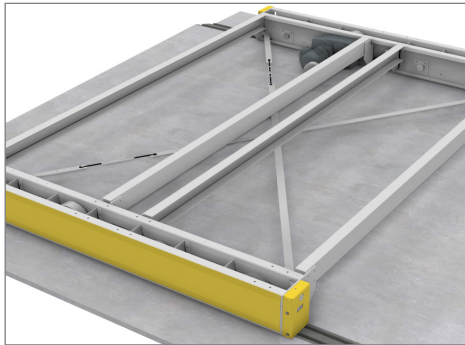
Picking Mode : Allows simultaneous opening of multiple aisles, streamlining SKU retrieval for improved efficiency.

Automatic Lighting : Saves energy by lighting only active aisles, also activates all lights in case of emergencies.

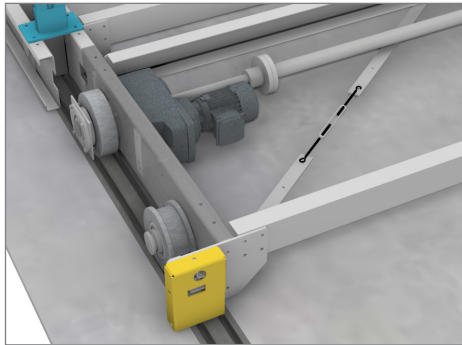
MHE Count : The Sensor Automatically counts the number of MHE movements in and out of the system



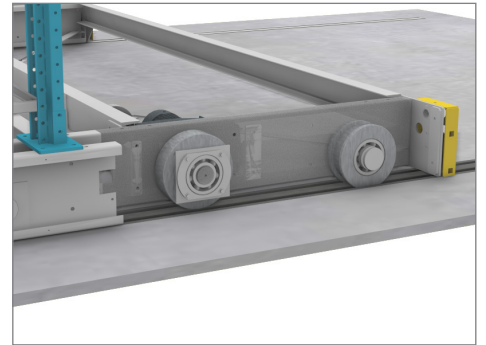
Mechanical Components



Understructure on Rail



Motor & Wheels



Bearings

Rails :

- Facilitates undercarriage movement and can be installed on both new and existing floors.
- Accommodates floor variations up to 6 mm as per EN standards.
- Two types of rails, Guide and Plain rails.

Cradle Beam :

- The beam can be designed to suit various load applications.
- Guarantees precision and reliability, reducing the risk of bow, camber, and twist.

Wheel Beam :

- Consists of wheels and channels on which the superstructure assembly takes place.
- Modular bolted design for easy maintenance.

Wheels :

- Heat-treated wheels with smooth surface finish reduce friction, ensure extended lifespan, and superior skew control.
- Diameters from 190 to 240 mm, and widths from 55 to 100 mm, to suit various applications. Three-wheel types—Guide, Plain, and Drive.

Bearings :

- Heavy-duty bearings from reputed brands are permanently lubricated for longer life.
- Double-sided cap shields the bearings from debris and dust.

Motor :

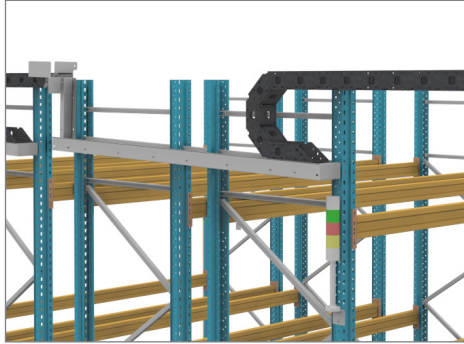
- Motors from reputed brands for reliable performance.
- Compact, integrated motors with wheel beams optimize space, without compromising pallet positions.
- Protective covers to safeguard against damages during operations.



Electrical Components



Control Panel



Cable Organiser



Remote Control

Control Panel :

- Hub for all electrical connections and to be located within 20 meters (approx.) from the system.
- System incorporates Siemens PLC and Display, with high-quality sensors, ensuring top-notch performance and reliability.

Wiring System :

- Our plug-and-play wiring system facilitates simplified installation and easy maintenance.
- Cables are concealed and contribute to a more organised setup.

Cable Organizer :

- Protects cables and ensures operational safety.
- No civil support is required as it is supported on the system itself.

Remote Control :

- Wireless remote to control system movement.
- Simplifies bay selection thereby saving time and effort.

Safety Features :

Sensors : A wide array of safety sensors with extensive sensing ranges for operator and system safety.

- **Aisle Safety Sensor :**

The rays traverse the entire length of the undercarriage. The mobile carriage halts when individuals or objects within the aisle come in contact with the undercarriage.

- **Stop Sensor :**

Stops the movement of the undercarriage at a defined position to avoid collisions between carriages.






- **Area Sensor :**

Covers the entire open aisle area and ensures safety by halting the system on detecting any movement within the coverage area.

- **Front Light Barrier :**

Automatically halts the system when the light barrier is interrupted.

The Godrej Promise

 <p>Industry leader</p> <p>60+ years of storage experience</p>	 <p>Design capability</p> <p>Adherence to all global design codes, EN, RMI FEM, EN/SEMA certifications</p>	 <p>Product range</p> <p>15+ solution systems</p>	 <p>Manufacturing capability</p> <p>6000+ tons of steel processed every month</p>	 <p>Reach</p> <p>25+ countries catered</p>
---	---	--	---	---

Where actual magic happens!



Innovation and Design centre



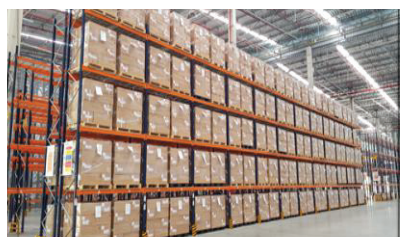
State-of-the-art manufacturing facility



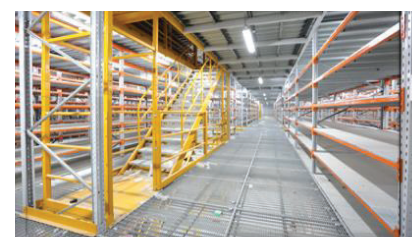
Comprehensive in-house testing facility

Palletised and Picking Solutions

Our solutions have evolved with years of experience. Our highly trained installation team, backed by a world-class production facility, enables us to provide you with market-leading storage solutions.



Racking systems



Shelving systems

