



Storage solutions since 1947

# PALLET SHUTTLE SYSTEM

Semi-automatic high density storage solution



**Key Benefits**

- 230% more capacity than traditional pallet racking
- No need for specialist fork lift trucks
- Pallets up to 1500Kg
- Temperature range -30°C to +45°C
- Eliminates damage inside the racking structure
- Low battery - automatically returns to entrance
- Lightweight radio control handset, simple to use
- Display on handset for information

**Pallet Shuttle System**

When considering a high density storage system look no further than the Pallet Shuttle System. Operating in a racking structure, similar to Drive-in, this system uses a remote controlled, semi-automatic, moving platform to place and retrieve pallets. The Pallet Shuttle System removes the need for forklift trucks to enter the storage lanes, eliminating the risk of damage to the uprights within the channel and offering a cost effective storage solution.

The Pallet Shuttle System is ideal for warehouses storing goods with a bulk stock profile and is suitable for a wide range of temperatures. This high density solution can significantly reduce the size of a warehouse required and ultimately cut running costs.

Different pallet types can be used together and located at varying distances between each pallet. Storage lanes can be in excess of 50m in length making the Pallet Shuttle System one of the most efficient bulk storage solutions compared to alternative pallet racking configurations.



**Why consider a Pallet Shuttle System?**

This system reduces the overall storage area needed in a warehouse for goods.

The system can be used for both mixed and bulk storage and is ideal for both LIFO and FIFO operations, removing many of the limitations associated with Drive-in systems.

Specialist fork lift trucks are not required.

Racking System	*Warehouse 100m x 100m x 9m with 1.1m high Euro pallets
Standard Wide Aisle Racking	20,000 pallets
Pallet-Flow System	36,000 pallets
<b>Pallet Shuttle System</b>	<b>46,000 pallets</b>

The table above shows an example of the number of pallets that can be stored with different racking systems in a fixed size warehouse.



## Structure & Operation

### Pallet Racking Structure

The Shuttle runs on specially designed rails supported by standard Dexion pallet racking frames, fitted with special support beams.

Requiring only 350mm clearance above a loaded pallet and a standard 1350mm opening, this is an optimum use of space.

Entry widths can be adjusted to accommodate various pallet sizes and load overhangs.

### Shuttle operation

The shuttle is easily moved between channels, by the forklift truck operator.

Simple, instructions are sent to the shuttle by the operator using the radio control unit.

The shuttle can determine the dimensions of the pallet load and adjust itself before lifting and moving it. After placing a pallet in the channel at a predetermined distance from the adjacent pallet. The shuttle will automatically return to the front face to receive the next load.

This can take place while the truck operator is collecting the next pallet for loading, making efficient use of the operators time.

The shuttle is powered by a rechargeable longlife lithium battery with a 4 year lifespan and a quick charge time. Each charge lasting up to a maximum of 12 hours. However, should a battery run low the shuttle will stop what it is doing and return to the front face for changing.



### PALLET SHUTTLE FEATURES

- Powerful, light weight shuttle at 180Kg - 220Kg
- All functions operated from radio control handset
- In-lane pallet counting function
- Lithium battery -12 hrs per charge
- Simple and quick battery change overs
- Short battery recharge time
- Battery recharge station provided



## Pallet Shuttle Specification\*



Longlife lithium battery removed for recharging

\*Shuttle by Autosat

Max. Load	1500 Kg
Pallet Depth	800 - 1200mm
Pallet Width	1000 - 1200mm
Speed (metres/minute)	With load: 30-33 m/min Without: 63-66 m/min
Channel Length	In excess of 50m can be achieved
Temperature Range	-1°C to -30°C or 0°C to +45°C
Operational Time	Up to 12 hours
Battery	Lithium Ion MNC 24v, 53 Ah
Battery recharge time	3 hours (80%), 5.5 Hours (100%)
Battery life expectancy	4 years (min 900 recharges)
Remote Control Display	O-LED (suitable for coldstores)
Warranty	2 years
The Pallet Shuttle System is a CE marked system and is produced in the EU.	

### LIFO or FIFO?

The Pallet Shuttle System is ideal for cross docking and consolidation areas, either LIFO or FIFO.

In a FIFO operation, it is possible to have 2 shuttles operating in the same lane, controlled from both ends. A non-collision mode is available.



### HOW MANY SHUTTLES?

The number of pallet shuttles required depends upon;

- No. of pallets moved per hour
- Length of the channels
- Time required to off load and return

**Contact our sales team for advice.**

### Handset Features



- Automatic or Manual control function for operation of the shuttle
- Information from the shuttle is shown on the handset
- Lightweight, rechargeable, radio control handset
- Easy operator usage, shuttle can be controlled from inside the truck
- A handset can control up to 8 shuttles
- Continuous operational in and out mode is available
- Water and dust repellent in accordance with IP65 standards



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