

Bedford Electrical

CASE STUDY

Powering Efficiency with 2000kg Electric Pallet Trucks

Customer: Amazon SNG1

Location: Leicestershire

Core Service: Electrical

Sector: Transport & Logistics



Project Details

Client Overview

Our client, Amazon, has 66 delivery centres across the UK, allowing parcels and packages to be distributed to their end destination promptly. The objective was to implement control for communication and real-time announcements to all staff members across warehouses.



Project Overview

Our team installed a solution to support 12 Electric Pallet Trucks (EPTs), each weighing 2000 kg, while ensuring minimal disruption in this busy operational environment. Additionally, we designed and installed a customised electrical infrastructure, along with 5S line marking, to establish designated parking locations. This case study outlines how we successfully met the challenges of working within Amazon's SNG1 while optimizing the warehouse's operations.



The Challenge

Heavy Load:

The 12 Electric Pallet Trucks, each weighing 2000 kg, required a robust and reliable power supply, with considerations for both safety and efficient operation.

Busy Operational Environment:

Installing and integrating the power infrastructure while the warehouse remained operational posed logistical and timing difficulties.

Power Accessibility:

Ensuring that the electrical infrastructure can handle the heavy power load while staying accessible and efficient within the space constraints of the warehouse.

Organisational Clarity:

The 5S line marking is needed to create clear, designated parking zones for the heavy-duty EPTs without interfering with ongoing workflows.

Safety and Compliance:

All installations had to adhere to Amazon's strict safety standards while ensuring minimal disruption to operations.



Solution 1

Electrical Infrastructure for 2000kg EPTs:

- Installed a dedicated power distribution box to supply 12 EPTs, ensuring a reliable power source that could easily handle the demands of 2000kg EPTs.
- Designed and installed 12 strategically positioned double sockets to minimise clutter and ensure each EPT charged with minimal effort. The sockets were durable and capable of safely managing the heavy-duty truck loads.
- Conducted thorough testing to verify that all installations could handle the substantial power load required by the 2000kg EPTs, ensuring operational safety.



Solution 2

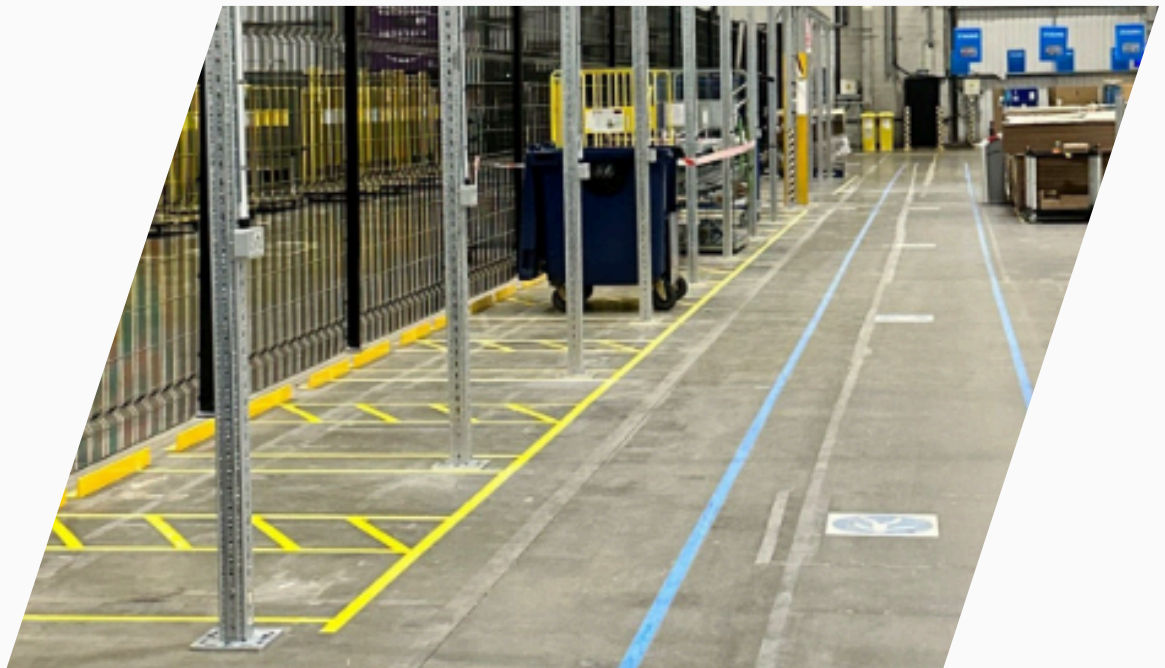
5S Line Marking for EPT Parking:

- Implemented 5S line marking to create clear parking zones for each 2000kg EPT, ensuring they were parked in designated areas to avoid congestion.
- Used durable, high-visibility floor markings that made the parking spaces easy to identify, even during peak traffic times in the busy warehouse.
- Carefully coordinated parking bay locations to minimise disruption to other operational workflows, taking into account the size and weight of the EPTs.

Solution 3

Safe and Efficient Installation:

- Conducted installations during off-peak hours to avoid disruptions, ensuring the safety of workers and preventing interference with ongoing sortation activities.
- Followed Amazon's rigorous safety standards during installation, including temporary barriers to secure the workspace and prevent accidents.





Results

This project delivered a range of positive outcomes:

- **Increased Efficiency:** The new infrastructure ensures that all 12 heavy-duty EPTs, weighing 2000 kg, operate seamlessly, supporting faster and more efficient material handling.
- **Improved Organisation:** The 5S line marking delineates parking zones, reducing clutter and increasing operational flow in the busy sortation centre.
- **Safety Compliance:** All electrical installations and operational practices complied with Amazon's safety standards, providing a secure environment for workers and equipment.
- **Minimal Disruption:** The project had minimal disruptions to daily operations despite the complexity of working in a busy environment.



Client Satisfaction:

The successful installation of 12 Electric Pallet Trucks (2000 kg each) with a robust power infrastructure and 5S line marking significantly enhanced efficiency and organization at Amazon SNG1.





Conclusion

This project highlights our capability to execute complex installations in demanding environments while maintaining high safety standards and minimising disruption.



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