



### introduction

Since launching Joloda Air Cargo Equipment in 2024, Joloda Hydraroll has continuously refined its solutions to support both local and global operators with advanced, automated Air Cargo Handling systems.

One of the first major installations under this new division took place at Schiphol Express, a leading provider of air cargo handling and transport services at Schiphol Airport in Amsterdam, Netherlands. The installation of an automated air cargo handling system was designed to streamline operations, making the loading and unloading process faster and more efficient.

In this case study, we explore the details of this installation—introducing the client, outlining their challenges, presenting the proposed solution and system features, highlighting the benefits of implementation, and gathering feedback from Schiphol Express.









### the client

Schiphol Express provides comprehensive logistics services, including cargo handling, temporary ULD storage, sorting, and transportation for freight forwarders, airlines, and logistics providers. Operating from Schiphol and Eindhoven Airport, the company ensures efficient and secure air freight transport across the Netherlands.

Schiphol Express manages the entire logistics process, from loading and unloading goods in first-line warehouses to transportation and delivery across the country.

# the challenge

For this installation, Schiphol Express needed a more efficient and reliable solution to speed up trailer loading and unloading, allowing them to handle greater air cargo volumes. Their existing system had become worn out and needed replacing with a modern version featuring the latest technology.

The manual unloading of air cargo, such as ULDs and PMC pallets, was time-consuming and labour-intensive, leading to increased trailer turnaround times and higher operational staffing costs.

They sought a system that could streamline operations, reduce manual handling risks, and enhance overall efficiency in air cargo transfers between trailers and warehouses.





### the solution

To address Schiphol Express's challenges, Joloda Hydraroll designed, manufactured, and installed a fully integrated system consisting of a 20ft Truck Dock and two 10ft Powered Rollerbed positions. While these components may appear as separate systems, they function as a single, cohesive unit. The main reason for choosing this configuration was to enable Schiphol Express to prepare or unload a full truck load (four 10ft positions) efficiently.

### Truck Dock

The Truck Dock system facilitates seamless cargo transfer between trucks and warehouses. It features hydraulic height and sideways adjustment for precise truck-to-dock alignment, ensuring a smooth transition of cargo between the trailer and warehouse. Additionally, it is equipped with motorised rollers, forming a powered rollerbed that moves cargo efficiently down the length of the truck dock.

Schiphol Express opted for a 20ft Truck Dock, allowing two 10ft PMC pallets or one 20ft pallet to be unloaded from the trailer simultaneously. Once the pallets reach the end of the truck dock, the operator hydraulically lowers the dock to align with the Powered Rollerbed system.

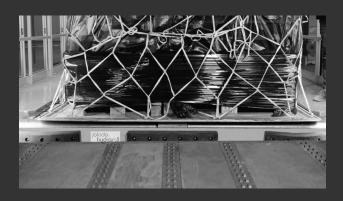
The motorised rollers then propel the loads along the

system before the cargo is unloaded and processed in the warehouse.

The Truck Dock was also specified with a winch, enabling the towing of air cargo from trailers in cases where pallets become stuck, even if the trailer is fitted with Pneumatic Rollertrack (PRT), Modular Rollerbed Systems (MRS), or Powered Cargo Rollers (PCR). Since all air freight trailers are equipped with rollerbeds as a minimum standard, the winch serves as a backup to ensure smooth operations.

To further optimise operations, the Truck Dock operator panel was equipped with a door switch, ensuring that









### the solution

the roller shutter door is fully open before the system can be operated. This feature reduces the risk of door damage during loading and unloading.
Additionally, trailer detection is integrated into the Truck Dock. The system automatically detects when a trailer is correctly aligned and ready to receive freight, further improving efficiency and safety.

### **Powered Rollerbed**

The Powered Rollerbed system consists of two 10ft rollerbed positions that work in conjunction with the Truck Dock, ensuring the entire system functions as one integrated unit. This setup allows a full trailer load

of four 10ft PMC pallets to be unloaded or preloaded simultaneously, maximising efficiency.

The Powered Rollerbed's motorised rollers propel air cargo further into the warehouse, eliminating manual handling and accelerating the workflow. The system was also equipped with weighing scales, enabling air cargo to be weighed and labelled with a printed sticker before further processing.

Automation plays a key role in making this a one-person operation. Photocell sensors automatically shut off the motors to prevent air cargo from being propelled beyond the length of the Truck Dock

or Powered Rollerbed system, ensuring controlled and efficient cargo handling.











# system features



### 1. Hydraulic Height & Sideways Adjustment:

Precise truck-to-dock alignment, ensuring a smooth transition of cargo between the trailer and warehouse.

### 2. Motorised Rollers:

Forms a powered rollerbed that moves cargo efficiently down the length of the truck dock.

### 3. 20ft Truck Dock:

allowing two 10ft PMC pallets or one 20ft pallet to be unloaded from the trailer simultaneously.



### 4. Truck Dock Winch:

Enables the towing of air cargo from trailers in cases where pallets become stuck. Since all air freight trailers are equipped with rollerbeds as a minimum standard, the winch serves as a backup to ensure smooth operations.

### 5. Door Switch:

Ensures that the roller shutter door is fully open before the system can be operated. This feature reduces the risk of door damage during loading and unloading.

### 6. Trailer Detection:

The system automatically detects when a trailer is correctly aligned and ready to receive freight, further improving efficiency and safety.



### 7. 2 x 10ft Rollerbed Positions:

Work in conjunction with the Truck Dock, ensuring the entire system functions as one integrated unit. This setup allows a full trailer load of four 10ft PMC pallets to be unloaded or preloaded simultaneously, maximising efficiency.

### 8. Motorised Rollers:

Propels air cargo further into the warehouse, eliminating manual handling and accelerating the workflow.

### 9. Weighing Scales:

Enables air cargo to be weighed and labelled with a printed sticker before further processing.



### 10. Photocell Sensors:

automatically shut off the motors to prevent air cargo from being propelled beyond the length of the Truck Dock or Powered Rollerbed system, ensuring controlled and efficient cargo handling.

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# the benefits of implementation

The installation of Joloda Air Cargo Handling Equipment delivered significant operational improvements for Schiphol Express, including:



# 1. Increased Efficiency The automated system reduced unloading times from manual handling to just minutes per truckload.



2. Scalability
The modular design allows for future expansion as cargo volumes grow.

## **3.** Improved Reliability The robust construction ensures durability under high-demand conditions.



**4. Enhanced Safety**Reduced manual handling minimised the risk of workplace injuries.



**5. Lower Labour Costs**Automation decreased reliance on manual labour for cargo handling.



### the feedback



**Christophe Darras**Operations Manager

Christophe Darras, Operations Manager at Schiphol Express commented on the installation, stating:

"The installation of the air cargo handling equipment has transformed our operations. The automated system has significantly reduced trailer loading and unloading times, improved workflow efficiency, and enhanced safety for our team.

The equipment has integrated with our existing processes seamlessly, allowing us to handle higher cargo volumes with greater reliability. This investment will be instrumental in optimising our logistics capabilities and performance."



**Bart Sloot** Sales Manager

Bart Sloot, Sales Manager from Joloda Air Cargo Handling Equipment, commented:

"The installation of our Truck Dock and Powered Rollerbed system at Schiphol Express demonstrates how automated air cargo handling can transform efficiency.

By reducing manual handling and increasing loading speed, we've helped Schiphol Express streamline its operations and improve service reliability. We're proud to support their continued success in the air cargo sector."

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### conclusion

The team at Schiphol Express sees how this new air cargo handling system has increased productivity and reduced turnaround times since implementing the new system. Operators have noted a smoother workflow, and the ability to handle higher cargo volumes has improved service levels for their clients. The seamless integration with existing logistics processes further reinforced the effectiveness of the installation

By installing Joloda Air Cargo Handling Equipment's Truck Dock and Powered Rollerbed system, Schiphol Express has optimised its air cargo handling operations. This solution has streamlined workflows, improved efficiency, and reduced operational costs, reinforcing Schiphol Express's position as a leader in air cargo logistics.

As global air freight demand continues to grow, businesses seeking to enhance cargo handling efficiency can rely on Joloda Hydraroll's proven expertise and innovative solutions.





# if you have any questions, please get in touch!





Learn more about Joloda Hydraroll... watch our video

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