

# AUTOMATED MATERIAL HANDLING SOLUTIONS

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**AEDLER**<sup>®</sup>  
LOGISTIK SOLUTIONS



# **INNOVATIVE AUTOMATED SOLUTIONS**







AEDLER Logistik Solutions is a leading automation solutions provider of Air Cargo, Material Handling and Car Park Systems. With more than 30 years of experience, our material handling portfolio covers a full range of all solutions from manual operation to fully automated, robotically supported operations, consisting of, but not limited to- Air Cargo Handling Systems, Modular Warehouse Equipment, Express Handling Systems, Industrial Facility Automation and Autonomous Vehicle Transport systems.

With Head Offices in UAE, Germany, Malaysia and Singapore to cover the Middle East, African, European and Asian markets we ensure a reliable network of suppliers providing world-class engineering and IT solutions for our clients worldwide.

AEDLER designs Automated Storage and Retrieval Systems (ASRS) for the computerized storage and retrieval of goods in the Cargo handling, manufacturing, stock-keeping and distribution facilities where space is scarce and efficiency and high throughput are a must.

Our company is abreast of regulatory requirements and has developed new processes and innovative technology to support next generation cargo and logistics/material handling systems- using technology solutions that improve throughput, enhance real time data capture with embedded security functionality expediting each step in the logistics process.



With ISO 9001, AEDLER qualified engineering and project management professionals specialized in:

- Pre-Project Planning
- Complete Design of Material Flow
- Simulation
- Information Technology & QA/QC-Quality
- Schedule Planning
- Implementation
- Training & After Sales Support



# **AIR CARGO HANDLING SYSTEMS**







### **Elevated Transfer Vehicles (ETV)**

The Elevating Transfer Vehicle is a state of the art, automated air cargo system that combines versatility, efficiency and safety. The ETV is built on a central rail system for the efficient storage and retrieval of all types of ULDs and Air Cargo Pallets on multiple levels using friction driven motorized roller decks with a capacity of up to 14,000 kgs.



### **Automated Storage & Retrieval Systems (ASRS)**

The ASRS is designed for the computerized storage and retrieval of goods in the cargo and distribution facilities where space is limited and efficiency and high throughput is required. All our ASRS installations have two storage and retrieval machines per aisle for redundancy and high stock turnover.



### **Transfer Vehicles (TV)**

Transfer Vehicles are the traditional rail mounted prime movers for transporting, storing and retrieving cargo horizontally on a single level. The ULDs are moved on and off the racking by interconnecting the integrated roller conveyor with external roller decks. Our Transfer Vehicles can transport two containers simultaneously.



### **Lowerable Workstations**

Our Lowerable Workstations enable efficient build-up and breakdown of 10ft, 15ft and 20ft ULDs. The workstation consists of 10ft Roller-Decks built on a scissors lift with reinforced bearings and rollers. This system is also equipped with a weighing scale registering the load on the platform.



### **Truck Docks**

The Truck Dock consists of roller decks integrated with a tandem hydraulic scissors lift mounted on a rail vehicle. This allows loading and unloading of vehicles/trucks of different heights at different loading positions. This system comes with a scale and can be connected to the warehouse with different solutions.



### **Pallet Hoists**

Pallet Hoists are designed to utilize the available vertical space in the warehouse with no additional requirements of civil works. By installing Hoists, we create an additional storage level which leads to maximum utilization of the space. The flexible design ensures a user-friendly interface between the different warehouse levels.

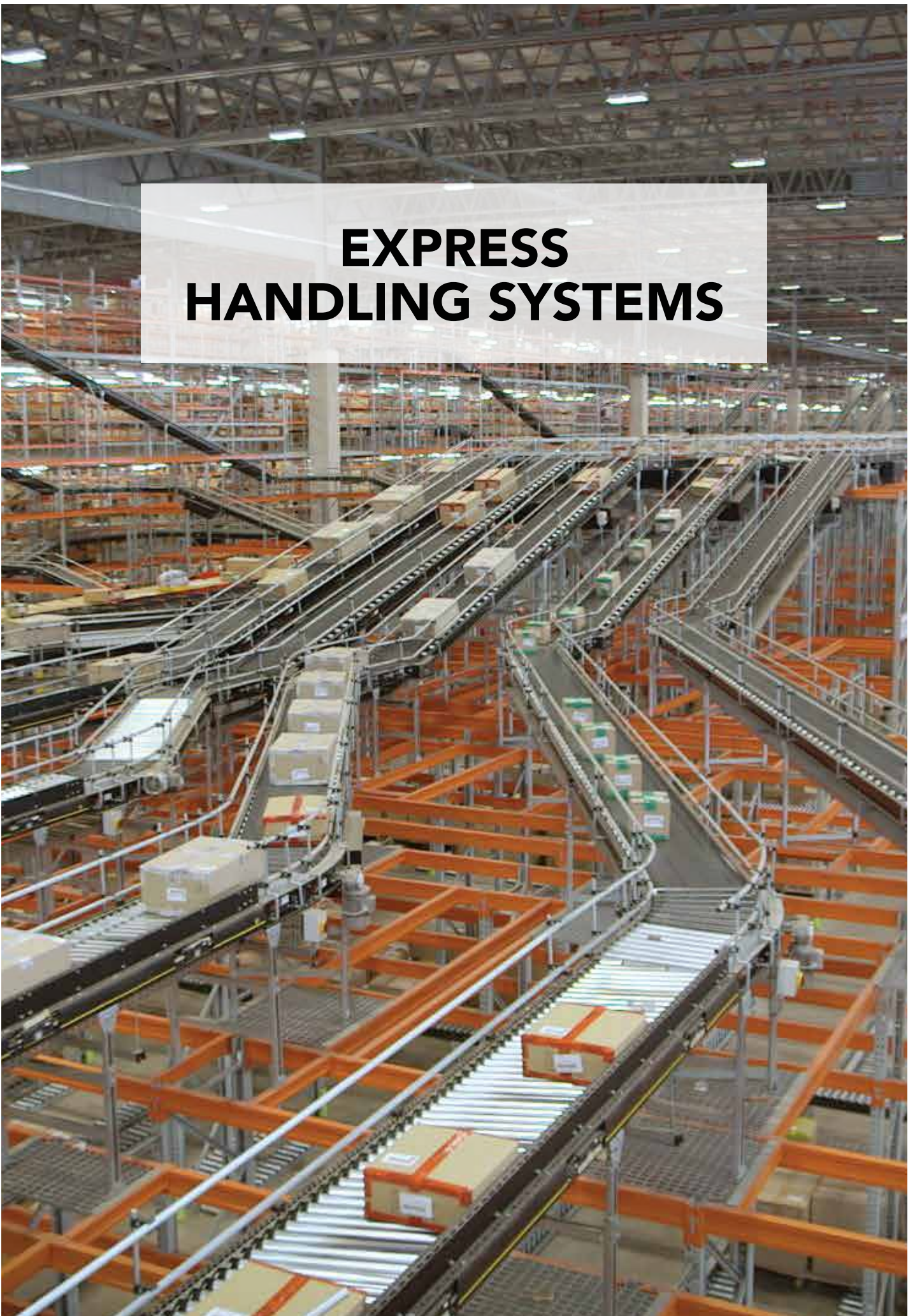


### **Portals & Conveyors**

Portals measure and capture volume, appearance and weight of cargo in a continuous process. The automated sorting, weighing and identification of parcels are done by belts and roller conveyors with an interface to the client portal. This is a modular concept that allows easy installation in new and existing cargo facilities.



# **EXPRESS HANDLING SYSTEMS**







### **Ball, Castor, Gravity & Roller Decks**

Designed to manually and safely transfer the cargo pallets and ULDs in omni-directions within the warehouse by interfacing with cargo handling equipment. The modular design depends on the customers' requirements. The decks are equipped with accessories such as weighing scales, ram protections and volume measuring devices.



### **Heavy Duty & Curve Conveyors**

Conveyors are adaptable and used widely in different industries. They are particularly suitable for the transport of packed and unpacked unit loads of a variety of shapes and sizes. Long life and high reliability as well as smooth running at a low noise level allows the successful handling of loads in materials flow applications.



### **Mini Load Storage Systems**

The Mini Load is a high-density tote buffer designed to maximize vertical storage space while maintaining a compact footprint. A high-speed Storage/Retrieval machine move loads safely to support picking operations. Multiple input/output and integration options are available to streamline material flow.



### **Input & Output Stations**

Input/Output station of an automated storage and retrieval system is a set of conveyors designed to interface with the automated storage mechanism for the delivery of totes or pallets efficiently and safely to the picking stations and vice-versa. The workstations can be fitted with Volume Scanners, Scales, Barcode Readers and Contour Checks.



### **ULD Pallet Movers**

The ULD pallet mover allows to transport heavy goods around the warehouse safely on the Slave Pallets. It is equipped with three forks for stability and a load capacity of 7.5 tons. Our ULD pallet mover enables the user to do the build-up/break-down of ULD on the pallets efficiently and minimizes damage to the ULD.



### **Slave Pallets**

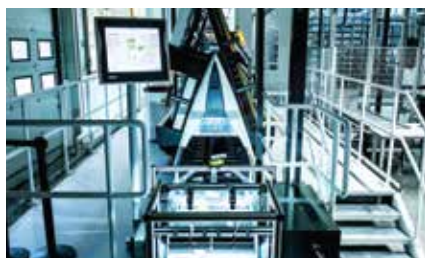
The Slave Pallet is used in Air Cargo to transport, loading and unloading of ULDs. The usage of the Slave Pallets is very versatile. It can be used as a mobile Workstation for build-up and break down of ULDs and Cargo Pallets. Slave Pallets are designed for heavy loads for transportation of up to 6.8 tons.



# PHARMA HANDLING SYSTEMS







### **A-Frames**

The fully automated A-Frame picking system handles rapid processing of complex orders. It guarantees the greatest productivity and an optimum material flow. Medicines are filled into the channels and automatically deposited in the order container. It provides a significant reduction of manpower and shorten order transit times.



### **Shuttle**

The Shuttle is the perfect storage system for medicines and guarantees maximum throughput and system availability. The Shuttle covers all the key processes of the modern automated warehouse including storage, consolidation, buffering, picking and handling of returns.



### **Pharma Stores**

The Pharma Store is a sophisticated storage and picking system that can be used along the entire pharmaceutical supply chain, whether in wholesale or for pharmacies. It covers everything from automatic goods-in and space-effective storage to automated processes and stock management.



### **Robotic Picking**

Robots are equipped with various grippers and AI-based object recognition that enable the system to handle a broad article range leading to a considerable increase of performance. AEDLER offers an extensive range of robotics solutions that can be smoothly integrated in existing facilities.



### **Automated Storage & Retrieval Systems (ASRS)**

Storage and Logistics Automation via an ASRS thrive in applications where high volumes of inventory move in-and-out of distribution operations. Storing with ASRS provides accurate and direct access to pharmaceutical products at all times. ASRS increases throughput and efficiency, saves space and reduces building costs.



### **Paperless Picking**

AEDLER offers paperless picking technology, from Radio Frequency Picking to Voice Picking to guarantee an accurate order fulfillment in the manual picking areas. Terminals indicate the article, location and picking quantity, minimizing the time required for picking. Our solutions boost efficiency and quality in order fulfillment.



# **E-COMMERCE HANDLING SYSTEMS**







### **Micro Fulfillment Centers (MFC)**

Micro fulfillment Centers are popular in e-commerce and food retail industry as an alternative to manual fulfillment and offer major competitive advantages in terms of last mile and delivery costs. The shuttles retrieve and deliver the totes to a picking station where they can be assembled into an order ready for delivery.



### **AGVs & AMRs**

Automated Guided Vehicles (AGVs) and Autonomous Mobile Robots (AMRs) are used for horizontal transport, storage and retrieval of goods that increase productivity while offering a versatile solution for material and layout freedom. Our AGVs are modular, scalable and adaptable to new and existing facilities.



### **Shuttles**

The warehouse shuttle system is the right choice for logistics applications demanding the highest performance in order fulfillment as well as maximum flexibility. The Shuttle can be tailored to customers' performance targets, making the system the ideal solution for automating online retail or omni-channel distribution.



### **Workstations**

AEDLER Workstations stand out for their efficiency, error-free order processing and optimal ergonomics increasing employee satisfaction and safety. Our workstations can also be used for returns processing, inventory, repacking and consolidating goods. These systems eliminate travel time and use less labour.



### **Sorters**

Sortation systems automatically identify items and divert them to the appropriate zone. This enables warehouses, distribution centers and manufacturing facilities to increase throughput, decrease cycle times and reduce costs. AEDLER sortation systems can be easily scaled and integrated with larger order fulfillment systems and software solutions.



### **Conveyors**

Conveyors are the ideal solution to handle parcels, documentation and merchandise of all shapes and sizes. In E-commerce facilities, conveyors are used for automatic packaging labelling, sorting, distribution and management of returns. AEDLER conveyors increase productivity and reduce delay product shipments.





■ **Europe**

Hagenauer Straße 59  
65203 Wiesbaden, Germany  
Tel: +4961197869059

■ **South East Asia**

172 Race Course Road #02-04  
Singapore 218605  
Tel: +6563921877

■ **Kuala Lumpur, Malaysia**

A-01-22 Ekocheras Office Suites No. 693, Batu 5  
Jalan Cheras, 56000 Kuala Lumpur, Malaysia  
Tel: +60328569788

■ **Middle East & Africa**

Grosvenor Business Tower, Office 805  
Barsha Heights, Dubai, United Arab Emirates  
Tel: +97142869617



[www.aedler.com](http://www.aedler.com)  
[info@aedler.com](mailto:info@aedler.com)

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