

ABLE MK2
Automated Baggage Loading Equipment



ABOUT US

Founded in 1995, AAT Automation GmbH specializes in innovative automation solutions across various industries, including conveyor systems, automated warehouses, robotics, production and recycling facilities, and autonomous guided vehicles (AGV's).

Since 2021, AAT has been a proud member of DREßLER BAU, bringing its automation expertise to the group.

AAT is acknowledged for both its technical expertise and its reliability as a partner for ambitious automation projects. Our multidisciplinary team of experts collaborates closely with clients to understand their specific needs and offer comprehensive support from concept to realization.



Daniel Kaiser (l.) and Roman Kaiser (r.)

Roman Kaiser CEO
Marketing, Sales and
Business Development

Daniel Kaiser COO/CTO
Technology and Technical
Development



INTRODUCTION

While the automation of baggage handling systems at airports – from the check-in counter to the make-up area and from the point of unloading to the baggage claim – has reached impressive levels, the process of baggage loading and unloading itself at most airports to this day remains manual.

Our mission is to revolutionize airport operations through innovative, efficient, and reliable solutions for automated baggage loading and unloading.

THE NEXT GENERATION OF BAGGAGE LOADING

ABLE Mk2 (Automated Baggage Loading Equipment Mark 2), developed by **AAT Automation GmbH** in Karlsruhe/Germany, is the latest advancement in automated baggage loading.

ABLE Mk2 represents a significant leap forward, building on the experience gained with its predecessor, **ABLE** (Mk1), which has been in operation at two of the biggest international airports in Europe for over a decade and to date.

During this time, **ABLE** (Mk1) has demonstrated its functionality and reliability by successfully loading more than 60 million pieces of passenger luggage in real airport operations.

TIMELINE



1995

Founded by Roman Kaiser in Karlsruhe, Germany



2005

Entry into the Grenzebach Group, start of **ABLE** (Mk1) development



2007

Deployment of the first **ABLE** (Mk1) robot cells



2015

Exit from Grenzebach Group, re-established as AAT Automation GmbH



2020

Restructuring phase with a focus on the Airport industry



2021

Entry into the Dreßler Group, start of **ABLE Mk2** development

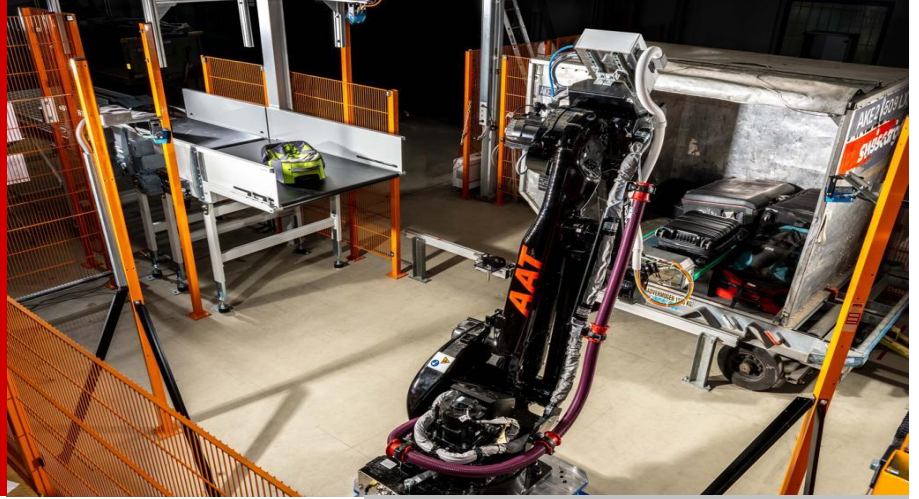


2024

ABLE Mk2 ready for market launch



WHY TO USE ABLE?



BENEFITS OF USING AN ABLE SYSTEM:



SAFE ENVIRONMENT

ABLE MK2 meets international industry safety standards.



MOBILE USER INTERFACE

Operated via a mobile device for greater flexibility and user convenience.



PREVENTS INJURIES AND HEALTH RISKS

ABLE prevents injuries and overexertion, protecting the health and safety of employees.



FULFILL CUSTOMER REQUESTS

Data collection can be tailored to meet specific needs of airports, airlines and ground handlers.



REDUCTION OF LABOR COSTS

By automating the loading process, airports can reduce their reliance on human labor and address the shortage of skilled workers. A single supervisor will be able to oversee multiple ABLE cells.



AI ENHANCED

An AI training system utilizing machine learning (ML) over time will enhance loading efficiency.

HUMAN VS. ABLE

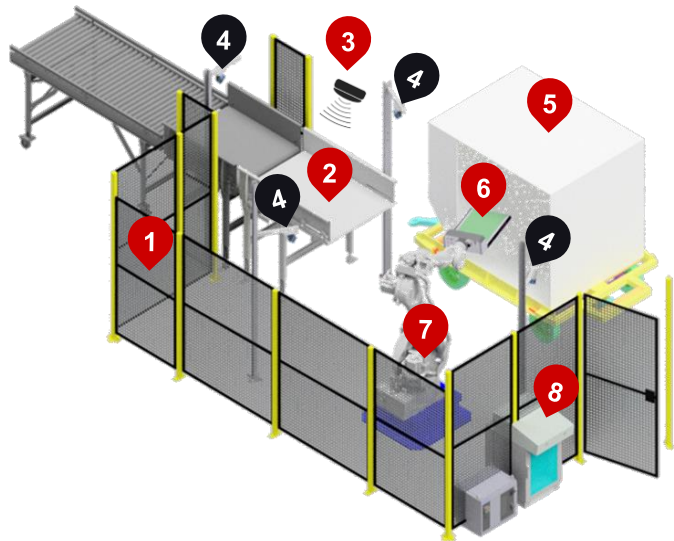
Human workers can load many tons of baggage.

But how long can they endure this?

The ABLE system can load several tons of baggage 24/7.

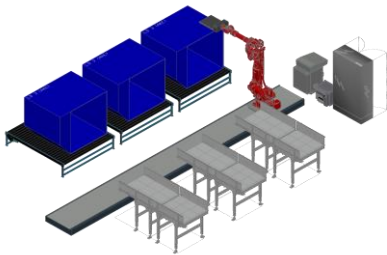
ABLE MK2 (STANDARD MODULE)

- 1 Safety Fence
- 2 Pick-Up Conveyor
- 3 RFID Scanner
- 4 Camera System
- 5 ULD Loading Position
- 6 Gripper
- 7 6-Axis Robot
- 8 HMI



Subject to change according customer needs.

HARDWARE PACKAGES (OPTIONAL MODULES)



Fenceless



Linear Axis



Tool Changer

SERVICE PACKAGES (OPTIONAL)



Training Courses



24/7 Hotline & Remote Support



System Updates



Maintenance



BAGGAGE CHARACTERISTICS

Standard Baggage	Minimum	Maximum	Average
Length	300 mm	1000 mm	700 mm
Width	300 mm	750 mm	500 mm
Height	50 mm	650 mm	400 mm
Weight	2 kg	40 kg	18 kg

ABLE MK2 HANDLING CAPACITY

Handling Capacity	Seconds-per-Bag	Bags-per-Hour
CART	10,000	360
AKE	11,250	320
AKH	12,000	300

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