



MB FAST GATE & MB KIOSK SYSTEMS

FULLY AUTOMATIC BORDER & ACCESS CONTROL SYSTEMS



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MÜHLBAUER GROUP AT A GLANCE

MÜHLBAUER’S BUSINESS UNITS AND SITES

Founded in 1981 in the heart of Bavaria, the Mühlbauer Group has ever since grown to a leading global player in the fields of Parts & Systems, Semiconductor Related Products, Document Solutions & Equipment for Security Systems, and innovative Technologies for Electromobility and Flexible Solar Solutions. With around 4,000 employees, technology centers in Germany, Malaysia, Slovakia, the U.S. and Serbia, and 35 sales and service locations worldwide, Mühlbauer created a strong competence network around the globe.

Our global corporation continuously invests in the most modern innovations and creative ideas to enhance our competences and to provide you with optimized solutions. We aim to protect the environment with our advanced technologies and make life easier for countless people.

Our business unit **SECURITY®** is established as a competent partner for the implementation of security systems for identifying and verifying both documents and individuals. Our clients benefit from more than three decades of experiential value which we have gained during the realization of over 300 ID projects worldwide.

Our in-house precision part production **MPS** – Muehlbauer Parts & Systems – guarantees unlimited flexibility and the highest customer satisfaction.

Our business unit **AUTOMATION** does not only develop and assemble individually customized production systems, but also offers intelligent software solutions for production automation (Industry 4.0). Vision inspection technologies as well as semiconductor and RFID applications complete our comprehensive portfolio.

Our youngest and currently most dynamic division **NEW TECHNOLOGIES** brings unique machinery requirements to our series production. For the e-mobility industry, we have been offering highly efficient production lines for the manufacture of pouch cells and prismatic cells for lithium-ion batteries, as well as MEAs & stacks for fuel cells of renowned automotive manufacturers since 2022. Another promising area in this business field is our expertise in precise material handling, which enables us to provide innovative production concepts for solar cells on flexible surfaces.

There is no “can’t do” at Muehlbauer. We tailor your solution!



Mühlbauer
Bosnia & Herzegovina



Mühlbauer
China



Mühlbauer
Germany



Mühlbauer
Malaysia



Mühlbauer
Serbia



Mühlbauer
Slovakia



Mühlbauer
USA



MPS
Precision Parts & Surface Engineering



AUTOMATION
Production Equipment & Systems



WORLD OF SECURITY®
Government & Technology Solutions



MÜHLBAUER SELF-SERVICE-DEVICES COMPETENCE

Mühlbauer has been building self-service devices for more than ten years. The main target is to address the dedicated needs of our customer closing the gap between producing and personalizing ID documents and facilitating the ID documents in the field.

A wide variety of use cases and application scenarios can be found in the wild – from attribute verification such as checking age while shopping, over ID verification at government offices, to classic border crossing using a passport.

Documents are used in national and international contexts requiring to follow latest international and national document standards, like ISO 18015, ICAO Doc 9303 and furthermore.

The self-service approach does not only affect the verification of documents but also serves for supporting the application process for reliable and secure ID documents.

The Mühlbauer ecosystem is able to address these steadily increasing security demands and comfort perfectly by offering modular and interconnected components along the full life cycle of an ID document.

MB GET-ID DATA ENROLLMENT SOFTWARE SYSTEM

- ICAO-compliant enrollment

MB STEEL READER MOBILE DOCUMENT & PERSON VERIFICATION SOFTWARE

- Our mobile document verification including biometric face verification

MB BGCU BORDER GUARD CONTROL UNIT

- The Border Guard Control Unit to supervise the collection of MB FAST GATES



MB FAST GATE

ABC Gate (double door) – Automated Border Control gate with two doors and various sensors for document and biometrical verification.

Boarding / Access Control Gate (single door) – Automated gates for access control with lower security requirements and for supervised environments.

Item Tracking and Verification Gate (RFID gate) – single door gate with an RFID reader to track and trace RFID tags, for secure warehousing, weapon handling etc.



MB KIOSK SYSTEMS

APC KIOSK (document & FRS kiosk) – Automated Passport Control kiosk to readout an electronic travel document, verify the validity, may check watch lists and perform biometric face verification.

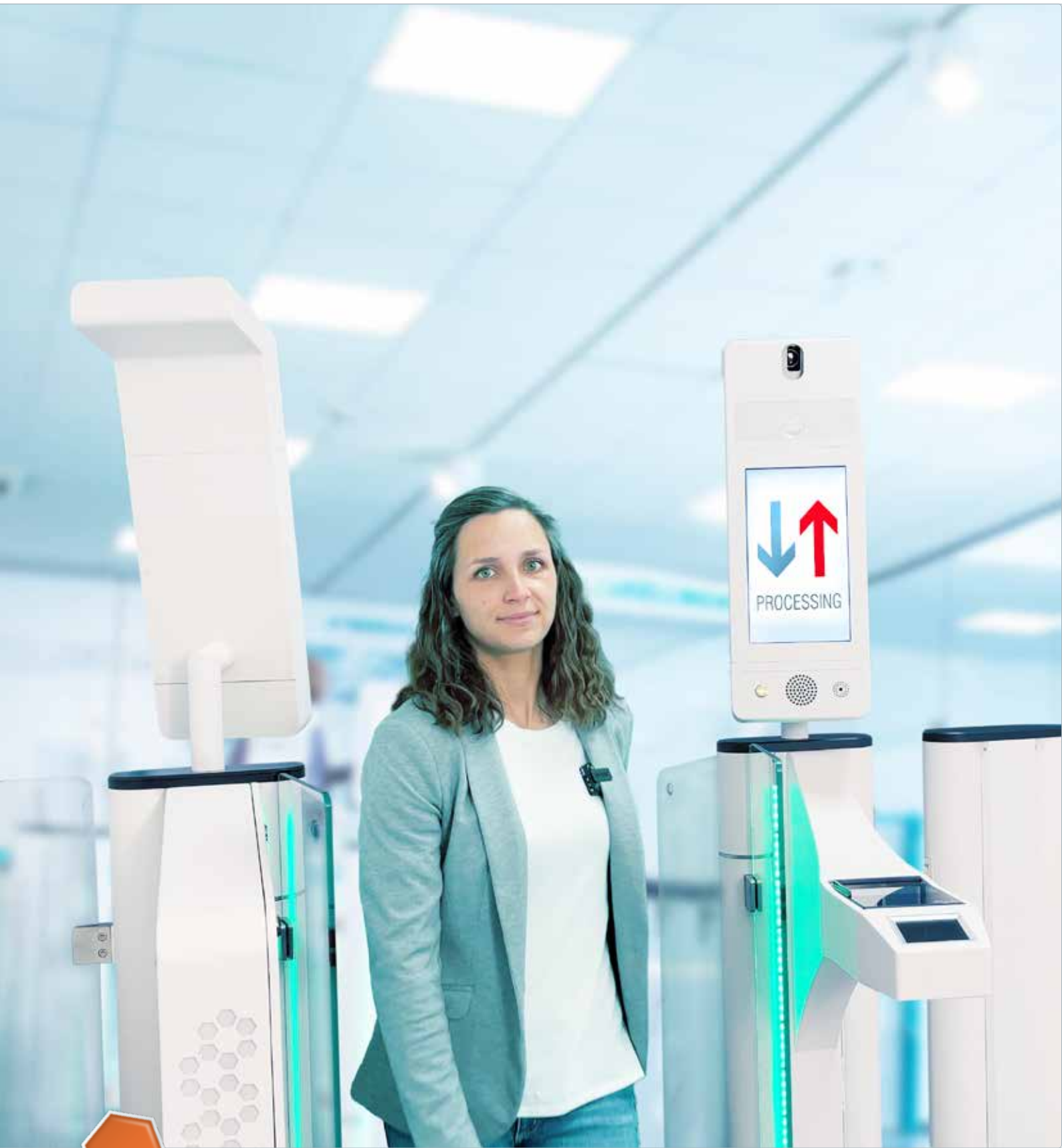
ABC KIOSK (document & FRS kiosk & declarations and visa check) – Automated Border Control kiosk to readout an electronic travel document, verify the validity, may check watch lists and perform biometric face verification. Additionally perform further customer-specific workflows like filling out declarations, reading visas, or handling visa applications.

I-Kiosk (enrollment) – supports supervised and unsupervised ICAO compliant enrollment processes for biometric ID documents.

Queue Kiosk (ticketing) – allows for vending access tickets for counters and offices in public service areas.



MB FAST GATE



FEATURES & ADVANTAGES

- | | |
|--|---|
|  Modular design |  Fever detection |
|  Multilane extension |  Document reader |
|  Bi-directional |  Inbuilt sensors |
|  Ergonomic shape |  Tamper-proof glass |
|  Intuitive user guidance |  Easy to integrate SDK |
|  Integrated LED |  Integrated computer |
|  Advanced integrated biometrics |  Made in Germany |

MB FAST GATE 

MB KIOSK 



IATA, FRONTEX & ICAO compliant



MB FAST GATE

FULLY AUTOMATED BORDER CONTROL (ABC) GATE

The MB FAST GATE system smartly combines modern, cost-efficient design and latest technology to speed up, facilitate and secure border and access control. The user-friendly, intuitive gates enable individuals a comfortable and fully-automated border crossing or access control process.

Thanks to their modular hardware and software architecture, Mühlbauer's FAST GATES allow for a high degree of customization flexibility: According to a project's individual requirements, single components can easily be replaced or extended. MB FAST GATES can be integrated in a highly versatile structure and with multiple backend systems.

MB FAST GATES provide high-speed, multi-biometric verification of individuals. ID documents are checked electronically and optically according to completeness, validity, correctness and holder authenticity in a fully automated way.

Live data is either verified with data, which is stored in the chip and in the document (autarkic mode) or matched with external databases such as watch lists, national databases, AFIS and FRS systems (integrated mode).

To further increase the security level of Mühlbauer's FAST GATE series, the gates can be equipped with a comprehensive

online video surveillance system to support traveler separation and avoid incidents such as multiperson access, climb-over or break-through.

In addition, objects left behind can easily be recognized and monitored. Along with these supplemental features, MB FAST GATES achieve the highest possible security standards. All of the MB FAST GATES components are arranged ergonomically to support passengers to understand the gate's operation and guide them through an intuitive border management process which:

- Reduces human failures to a minimum and
- Ensures a seamless and fully-automatic border management

As MB FAST GATES are used by human beings and thus process sensitive personal data, privacy is a major concern. Therefore, the MB FAST GATE'S system is designed according to security standards such as:

- Best Practice Guidelines of IATA, FRONTEX and ICAO
- Privacy by design
- Made in Germany



KEY MODULES

- | | | |
|---|---|---|
|  Card reader |  Iris scan (option) |  Multilane mode ready |
|  Passport reader |  Fever detection (option) |  Inbuilt tailgating detection |
|  Face verification |  Fingerprint reader (option) | |

FEATURES & ADVANTAGES

KEY FEATURES

- Fully transparent side glass walls
- Transaction time: approx. 15 seconds
- Advanced integrated biometrics
 - » Face verification unit
 - » Configurable face capture volume
 - » User guidance display
 - » Illuminations
 - » Capture speed – approx. 2 seconds
- Options
 - » Liveness detection
 - » Iris verification
 - » Fever detection
- Fingerprint reader – Single finger, 4-4-2 capture unit
- ICAO-compliant full page document reader
- Inbuilt tailgating technology
- Individually customizable on demand
- Easy to integrate into third-party software/systems
- Border guard monitoring station

TECHNICAL DATA

- Height: 1357 mm (without face unit)
- Length: 2608 mm
- Width: 1276 mm
- Inner width: 700 mm
- Temperature: 5-40 °C
- Humidity: 10-90%, without condensation
- Feeding:
 - » 160-240 VAC, 50/60Hz
 - » Data Network Connection

MB FAST GATE

MB KIOSK

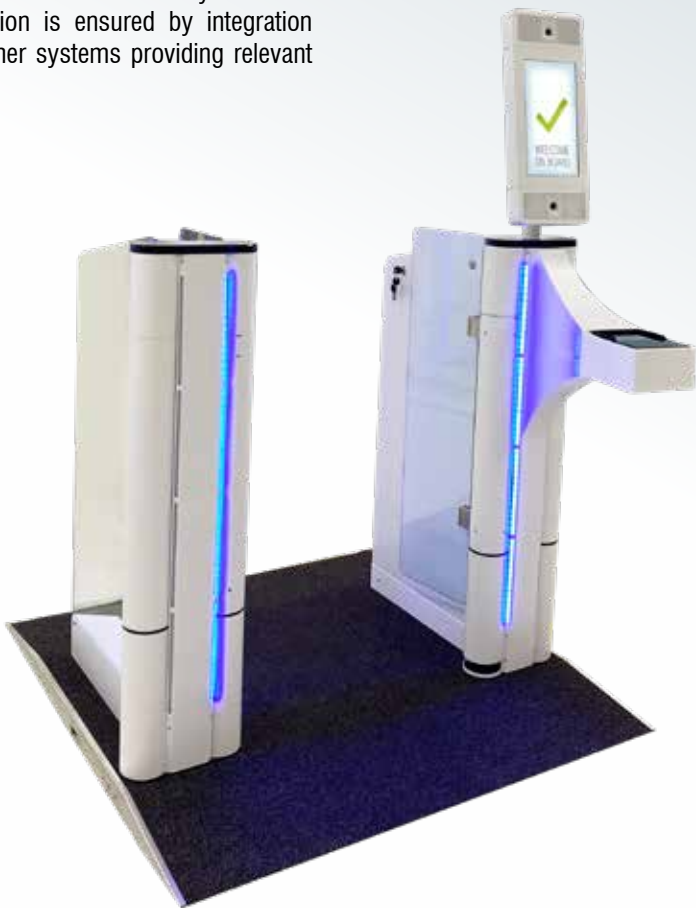


MB FAST GATE

BOARDING & ACCESS CONTROL GATE

MB FAST GATE is the Mühlbauer solution to providing secure access to any area with special security relevance. Our gates are designed to be used as an entrance control system for airside, lounges or any other area where limited and secured access is required. The application takes over access control by checking the passenger's boarding pass validity or other documents that may be required to grant access. A second inspection before entering the airplane offers operators an uncomplicated opportunity to check who is already on board. Boarding pass validity information is ensured by integration of 3rd party data sources or other systems providing relevant status information.

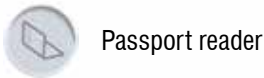
Flexible configurable business rules are used to allow combining information necessary for validity checks but also allow generating statistics and management information. Moreover, the automated process also provides a relief from routine tasks to staff members giving them more time for passengers who require assistance. In general, self-boarding gates provide a practical solution for improving passenger processing.



KEY MODULES



Card reader



Passport reader



Barcode reader



Face verification (option)



Iris scan (option)



Fever detection (option)



Fingerprint reader (option)



Multilane mode (option)

FEATURES & ADVANTAGES

KEY FEATURES

- Secure, high-speed, multi-biometric verification
- Ergonomic design
- Small footprint
- Faster passenger transaction
- Face verification unit
 - » Configurable face capture volume
 - » User guidance display
 - » Illuminations
 - » Capture speed – approx. 2 seconds
- Options
 - » Liveness detection
 - » Iris verification
 - » Fever detection
- Fingerprint reader – Single finger, 4-4-2 capture unit
- Document reader – Barcode/ID card etc.
- Inbuilt tailgating detection
- Individually customize on demand
- Easy to integrate into third-party software/systems
- Gate monitoring station

TECHNICAL DATA

- Height: 1200 mm (Without face unit)
- Length: 669 mm
- Width: 1276 mm
- Inner width: 700 mm
- Temperature: 5-40 °C
- Humidity: 10-90%, without condensation
- Feeding:
 - » 160-240 VAC, 50/60 Hz
 - » Data Network Connection

MB FAST GATE

MB KIOSK



MB FAST GATE

ITEM TRACKING AND VERIFICATION GATE

MB FAST GATE for item tracking & verification is equipped with real-time item tracking based on UHF or HF technology. Powerful long-range reader, capable to read up to 750 tags/sec, and strategically positioned high-gain antennas covering the man-trap area of the gate, ensuring that items with UHF labels going through the gate, could be detected. The data from tag memory are stored in MB SECURE WAREHOUSE software, and are accessible for further use. The Mühlbauer FAST GATE system smartly combines modern, cost-efficient design and the latest technology to speed up, facilitate, and improve access control. The user-friendly, intuitive gates enable individuals a comfortable and fully-automated access control process.

Thanks to its modular hardware and software architecture, Mühlbauer's FAST GATES allow for a high degree of customization flexibility: According to a project's individual requirements, single components can easily be replaced or extended. MB FAST GATES can be integrated into a highly versatile structure and with multiple backend systems. MB FAST GATE also provides high-speed, multi-biometric verification of individuals. ID documents are checked electronically and optically according to completeness, validity, correctness and holder authenticity in a fully automated way.



KEY MODULES

- | | | |
|---|--|--|
|  Card reader |  Barcode reader (option) |  Fever detection (option) |
|  Passport reader |  Face verification (option) |  Fingerprint reader (option) |
|  UHF/HF reader |  Iris scan (option) |  Multilane mode (option) |

FEATURES & ADVANTAGES

KEY FEATURES

- Fully transparent side glass walls
- Faster transition time
- Seamless item tracking
- Bi-direction – item IN/item OUT
- Advanced integrated biometrics
 - » Face verification unit
 - » Configurable face capture volume
 - » User guidance display
 - » Illuminations
 - » Capture speed – approx. 2 seconds
- Options
 - » Liveness detection
 - » Iris verification
 - » Fever detection
 - » Fingerprint reader – Single finger, 4-4-2 capture unit
 - » Document reader – ID cards/Barcode/passport reader
- Inbuilt tailgating technology
- Individually customizable on demand
- Easy to integrate into third-party software/systems
- Secure warehouse monitoring software

TECHNICAL DATA

- Height: 1357 mm (Without face unit)
- Length: 2608 mm
- Width: 1276 mm
- Inner width: 700 mm
- Temperature: 5-40 °C
- Humidity: 10-90%, without condensation
- Feeding:
 - » 160-240 VAC 50/60 Hz
 - » Data Network Connection

MB FAST GATE 

MB KIOSK 



MB KIOSK SYSTEMS



FEATURES & ADVANTAGES



Individual and Modular Configuration



Made in Germany

OVERVIEW MB KIOSK SYSTEMS

INTEGRABLE DEVICES		APC KIOSK	ABC KIOSK	I-KIOSK	QUEUE KIOSK
DOCUMENT READER	Smart Card Reader	■	■	□	-
	Passport Reader	■	■	□	-
	Ticket Reader	■	■	-	-
	Barcode Scanner	-	-	-	□
PRINTER	Receipt / Label Printer	■	■	-	■
BIOMETRIC VERIFICATION	Height-adjustable Camera	-	-	■	-
	Swivable Camera	■	■	-	-
	Fever detection	□	□	□	-
	4-4-2 Fingerprint Reader	□	□	■	-
INTUITIVE USER GUIDANCE	Speaker	■	■	■	-
	Signature Pad	■	■	■	-
	Touch Display	■	■	■	■
	LED Signage	■	■	-	-

■ = Standard □ = Option - = Not available

MB FAST GATE

MB KIOSK



According to IATA, FRONTEX & ICAO Standards



APC KIOSK

AUTOMATED PASSPORT CONTROL SYSTEM

The latest self-service Kiosk for Automated Passport Control is designed for a seamless experience for passenger journeys at immigration checkpoints (Airport, Cruise/Fairy/Seaport and Land borders). The Mühlbauer APC system allows for the pre-registration of travelers, based on travel document validation and biometric identification as well as verification of the traveler. The integrated devices support live biometric verification and travel document validation. It features an integrated user guidance screen. It is adaptive, touchable and can collect/store all data concerning the migration process the immigration authorities deem necessary. Such information includes but is not limited to the travel documents, the holder of the document, the actual process procedures, feedback from background systems, for example national and international watch lists, etc. The APC Kiosk improves the travelers experience at airports, seaports and land borders by reducing passenger queuing time and ensuring a faster as well as stress-free experience.



ABC KIOSK

AUTOMATED BORDER CONTROL SYSTEM

The Mühlbauer ABC Kiosk is the latest self-service system for the verification of travelers and their documents upon arrival or departure at Air- and Seaports as well as Land borders. In addition to its integrated user guidance screen, the devices integrated also support live biometric and travel document verification and validation. Moreover, the ABC Kiosk is adaptive, touchable and can collect/store all data the immigration and border authorities deem necessary. This includes the actual process procedures, the holder of the document as well as feedback from background systems e.g. national and international watch lists. All in all, reducing passenger queuing time ensures a faster and stress free experience for passengers and border police, overall improving the passengers' experience in the best way possible.

KEY FEATURES & TECHNICAL DATA

- Secure, high-speed, multi-biometric verification
- More efficient use of space & resources
- Reduction of queues
- Improved revenues for airlines, ports & immigration authorities
- Ready to support seamless travel scenarios
- Ergonomic & wheelchair-compliant design
- Border guard monitoring station
- Easy integration with the backend system
- ISO & ICAO standards for face image matching
- ICAO complaint MRTD & ePassport reader
- CE & EU safety regulations
- Traveler transaction rate:
 - » Approx. 60 Second per traveler*
- Biometric capture time:
 - » Approx. 30 Second per traveler*
- * (Basic workflow)
- Dimension without base plate:
 - » Approx. 600 mm x 700 mm x 1600 mm (L x W x H)
- Weight: approx. 75 Kg
- Power Supply: 110-230 V; low-energy concept
- Connections: USB/Network connection
- Polarized light, to avoid reflection



MB FAST GATE

MB KIOSK



I-KIOSK

ENROLLMENT KIOSK

Mühlbauer I-KIOSK is a complete and integrated hardware solution for live enrollment, with a customizable and expandable system architecture based on biometric identification and verification of the person. It serves for capturing personal data, including biometrics (e.g. facial image, fingerprints, signature). The MB I-KIOSK is equipped with a height-adjustable camera, illumination and background for capturing portrait photos, a screen display, a fingerprint scanner as well as a signature pad. This setup allows for obtaining all the required data of the applicant in high quality, according to ISO and ICAO standards. Its ergonomic, easy-to-use and compact design allows for usage in government offices. Enrollment is designed for comfortable and secure communication between data-capturing units and related equipment for data management and document personalization.



KEY FEATURES & TECHNICAL DATA

- Parallel enrollment of data (including fingerprints and signature) for different ID card types
- Support of online and offline as well as centralized and decentralized scenarios
- Support of standard interfaces and common platforms via XML file interface or web services (WSDL)
- Enrollment of:
 - » various age groups (incl. children aged 0-5)
 - » wheelchair users
 - » and adults holding a baby (0-3 years) thanks to height-adjustable camera
- Verification of the ICAO 9303 compliance
- Bright and diffuse illumination from all sides
- Polarized light, to avoid reflections
- Background:
 - » Standard or LED Wall for brighter picture background
 - » Footprint mat for correct positioning in front of Kiosk
- Dimension without base plate:
 - » Approx. 988 mm x 455 mm x 2100 mm (L x W x H)
- Weight: approx. 115 Kg
- Power Supply: 110-230 V; low-energy concept
- Connections: USB/Network connection
- Optional connection to
 - » Face Recognition Systems (FRS)
 - » Automated Fingerprint Identification Systems (AFIS)

QUEUE KIOSK

QUEUE AND NUMBER DISPERSION SYSTEM

The Mühlbauer Queue Kiosk system is a low-cost and low-footprint self-service dispenser station for customized services and products, verifying the client by biometric or other credentials. It features an integrated user guidance screen and was specially designed for travel, registration and ticketing processes in various public or private sectors like museums, university hospitals, airports, hotel lobbies or company foyers. In conclusion, it is adaptive, touchable and can collect or store all data. Flexible interfaces to background systems also enable simple shift management and data exchange. Making the Queue Kiosk the ideal solution for seamless 24/7 passenger reception, standing out through its low footprint and easy-to-use interface.



KEY FEATURES & TECHNICAL DATA

- More efficient use of space & resources
- Reduction of queues
- Ergonomic & wheelchair-compliant design
- Assistant button
- Thermal printer for acknowledgement receipt
- Easy integration with the backend system
- Monitoring station
- Dimension without base plate:
 - » Approx. 600 mm x 700 mm x 1410 mm (L x W x H)
- Weight: approx. 70 Kg
- Power Supply: 110-230 V; low-energy concept
- Connections: USB/Network connection
- CE & EU safety regulations

MB FAST GATE

MB KIOSK







Mühlbauer
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