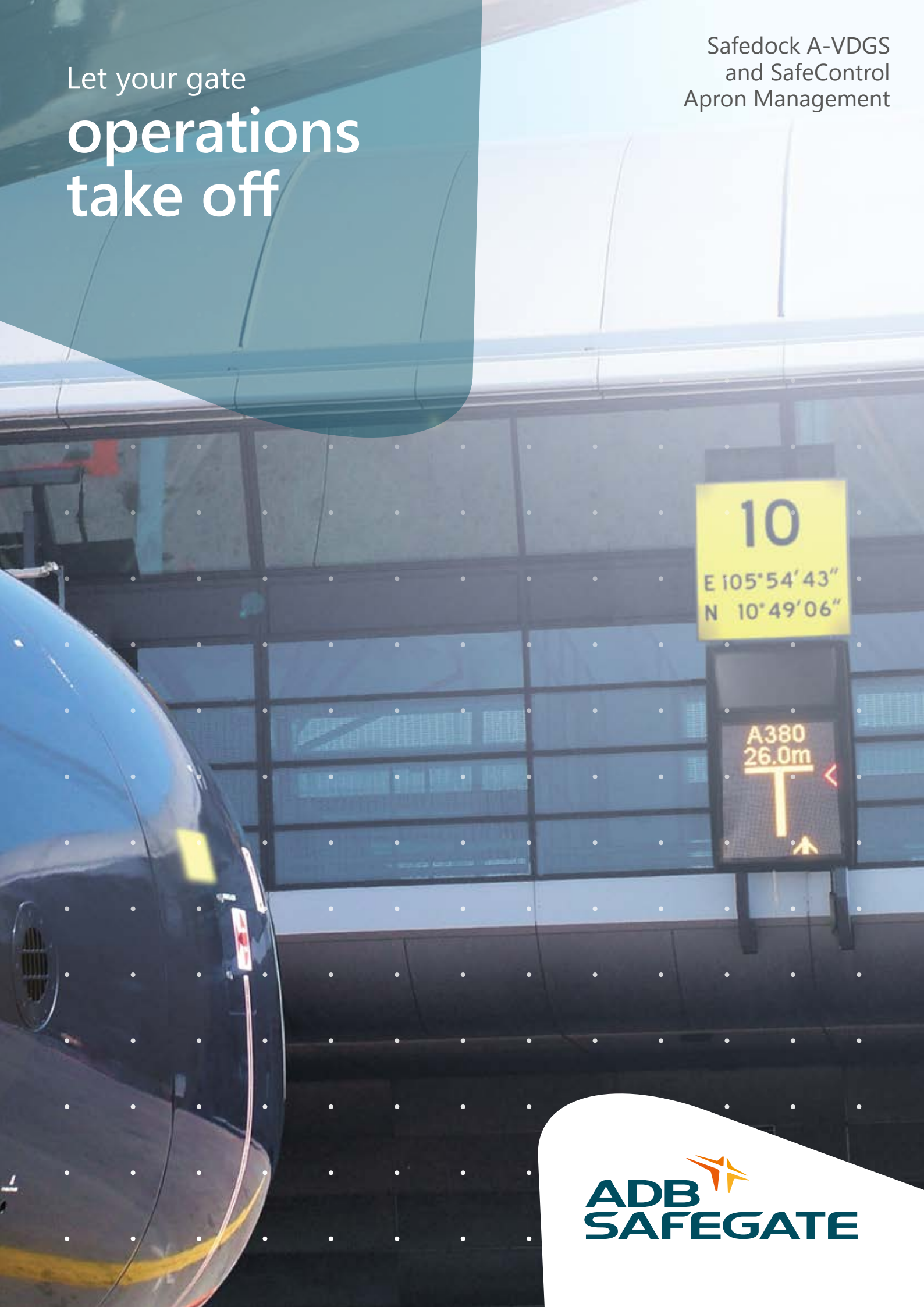
Let your gate

operations take off

Safedock A-VDGS
and SafeControl
Apron Management



ADB SAFEGATE

Safe and efficient docking

Safety on the ground is a top priority for airports and airlines. More than 27,000 ramp incidents and accidents happen each year according to IATA, but did you know that many of these incidents could have been prevented? Safety is not the only challenge facing airports and airlines. By 2035, passenger traffic is expected to nearly double, creating capacity issues that airports need to address now to prepare for this growth.

Optimizing gate operations through automation and integration

Manual aircraft docking, particularly in bad weather, increases delays and the risk of incidents and accidents. ADB SAFEGATE offers solutions to optimize gate operations. Our Safedock Advanced Visual Docking Guidance System (A-VDGS) provides an automated approach to parking aircraft that speeds up the docking process and improves safety by reducing the opportunity for error. Integration with other systems serving the gate and apron area, in support of an airport collaborative decision making program (A-CDM), makes it possible to share critical data. Operators can manage in real-time to mitigate disruption and ensure a safe and efficient gate operation.

Safedock A-VDGS makes every docking at the gate the safest, smoothest and fastest possible. It has become the global standard, enabling the world's busiest airports to handle more aircraft while maintaining a high level of safety.

Safedock A-VDGS uses an infrared laser and patented 3D scanning technique to provide active guidance to pilots to support safe, efficient and precise aircraft parking in virtually all weather conditions and without marshallers. This saves time and fuel, reduces CO_2 emissions and lets ground crew focus on turning aircraft. The automated system improves safety by ensuring aircraft/gate compatibility, verifying the position of the passenger boarding bridge (PBB) and scanning the apron for vehicles or other obstacles.

Together with SafeControl Apron Management, the Safedock A-VDGS is also used as a Ramp Information Display System (RIDS) to track the progress of the aircraft turn and share valuable information with flight and ground crews, further streamlining and shortening the turnaround.

Safedock A-VDGS and SafeControl Apron Management are part of ADB SAFEGATE's complete range of solutions for the gate, airfield and tower areas, designed to help airports and airlines secure performance today, and prepare for the traffic demands of tomorrow.

Docking

with Safedock A-VDGS and SafeControl Apron Management

As an aircraft approaches the gate, Safedock A-VDGS and SafeControl Apron Management can perform the following safety and efficiency enhancing procedures:

1. **Safedock is automatically prepared for expected aircraft**
   SafeControl Apron Management provides up-to-date flight information from AODB.
2. **Gate preparation**
   The system checks compatibility of the assigned aircraft with the gate and adjacent gates and ensures the boarding bridge is in a safe position.
3. **Checking GSE availability**
   SafeControl Apron Management can check whether integrated equipment (PBB, GPU, PCA etc.) is ready for use and indicate if they are not.
4. **Automatic initiation of docking procedure**
   The docking procedure is initiated automatically via SafeControl Apron Management or can be manually activated, either locally via the operator panel or remotely via the HMI.
5. **Apron scan***
   Safedock A-VDGS scans the apron, making sure there are no vehicles or objects in the way.
6. **Verify position of PBB**
   Safedock A-VDGS verifies the position of the PBB.
7. **Aircraft type check**
   Safedock A-VDGS uses our patented 3D laser scanning technique to measure the arriving aircraft to verify gate compatibility and ensure safe docking.
8. **Parking**
   Safedock A-VDGS guides an aircraft to its correct position by providing the pilot with intuitive signals, via a high-intensity LED display.
9. **Stop position**
   Allows for a wide range of aircraft stop positions, providing greater flexibility and future-proofing for new aircraft types.
10. **Capturing on-block time**
    Safedock A-VDGS captures the moment the aircraft stops. Block times are tracked for all flights and can be reported back to AODB.

**Optional function available with Safedock A-VDGS, T1 model.*

A Safedock A-VDGS
for every airport

Our most advanced model opens your gate to the future

- Apron scan to enhance safety
- Flexible mounting and increased range of stop positions to efficiently manage tight parking and larger aircraft
- More efficient docking in severe weather conditions
- Expanded Ramp Information Display System (RIDS) to support A-CDM

Overview of features

	T1	T2	T3
Apron scan	•		
Stop position 2-65 meters	•		
Improved docking in severe weather	•		
Ramp Information Display System (RIDS)	expanded	•	
Extended readability	•	•	
High resolution surveillance camera	•	•	
Departure/arrival information	•	•	
Stand equipment communication	•	•	
Connection to lead-in lights	•	•	
Aircraft verification/safety check (3D scan)	•	•	•
Automatic start of docking	•	•	•
Parking accuracy of 10 cm	•	•	•
LED display	•	•	•
Distance to go indicator	•	•	•
Closer clearance distance	•	•	•
Stop position 8-50 meters	expanded	•	•
Blocks on/off	•	•	•
Storage of configuration files	•	•	•
Real-time information	•	•	•
Auto-controlled apron lights	•	•	•
ICAO compliance (includes recommendations)	•	•	•
PBB interlock	•	•	•
All aircraft types with one system	•	•	•
PBB scan	•	•	•
Active azimuth guidance	•	•	•
Low visibility mode	•	•	•
Multiple centerlines	expanded	•	•
Operator panel with emergency stop	•	•	•

Enhance turnaround efficiency
with SafeControl Apron Management

By connecting Safedock A-VDGS to SafeControl Apron Management, you will maximize safety and efficiency through integration, data sharing and customized control and monitoring of the systems, equipment and processes on the apron. SafeControl Apron Management uses Safedock A-VDGS as intelligent sensors to collect and distribute real-time gate intelligence and accurate flight information between airport, airline and air traffic control systems. Vital information is shared, providing a key step toward implementing A-CDM to improve communication and efficiency. ADB SAFEGATE has more than 100 apron management systems installed around the world.

SafeControl Apron Management solves your toughest challenges on the ramp.

- Ensure safety at the gate
- Increase efficiency through collaborative decision making
- Maximize gate availability and uptime
- Improve gate turns and gate-to-gate performance
- Create a shared-use gate environment
- Generate and share critical information
- Reduce operating costs
- Allow for further improvements through analysis of data
- Prepare for future expansion with great flexibility – SafeControl Apron Management can easily be expanded and integrated with other systems

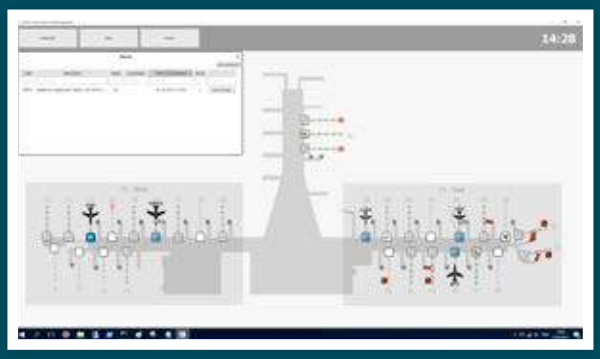
Real-time control and monitoring

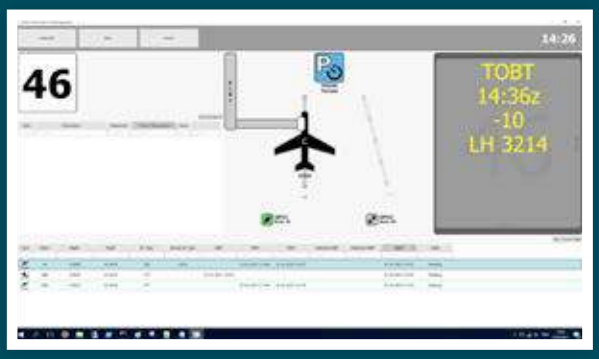
SafeControl Apron Management is a highly adaptable system that offers centralized management with views based on user role. The system is used to configure adjacent gate rules to ensure aircraft/gate compatibility and to automatically initiate the A-VDGS process. SafeControl Apron Management is the integrator of systems and equipment in the apron area and provides constant monitoring of the A-VDGS and connected systems, allowing ground personnel to know the precise status of gate equipment. Ground staff also receive alerts to potential issues before an aircraft arrives so that delays can be avoided.

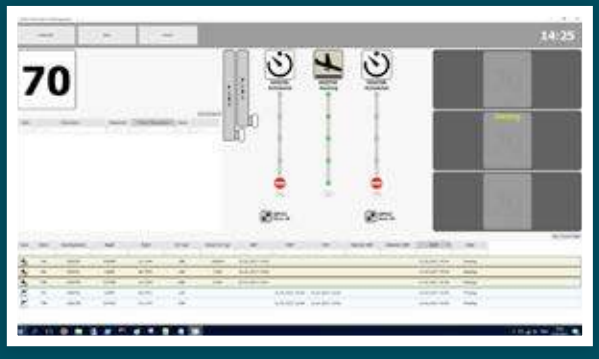
- Update flight database with the latest flight information
- Automatically send actual block IN & OUT times to flight database
- Share flight information with ground and flight crews
- Warn operators of weather events
- Track and report use of ground support systems
- Track position of in/outbound aircraft within range of A-VDGS
- Produce valuable data, such as turnaround times and GSE usage, that can be used for performance improvement by changing workflow or gate assignment

Ramp Information Display System (RIDS)

When a Safedock A-VDGS is not actively docking an aircraft, it can receive information from SafeControl Apron Management and display critical arrival or departure information for pilots and ground crew. Information is sent to the Safedock display via an automatic feed from a connected system or as free text entered from a SafeControl Apron Management work station. It is also possible to show the status of connected GSE on the RIDS display.







Great savings and low cost of ownership

Our gate solutions improve performance and customer satisfaction, which in turn increases your revenue. We also offer a low cost of ownership with flexible installation parameters, ease of configuration changes, extended lifetime of our laser technology and our extensive support network.

Apron scan T1
The Safedock T1 and SafeControl Apron Management offer an optional apron scan feature to enhance standard operating procedures, helping to ensure that no vehicles or other objects are in the way of arriving aircraft. Objects as small as a tow bar are detected by the A-VDGS and marked on the SafeControl Apron Management display.

Stop position T1 T2 T3
The Safedock T1 allows for an increased range of aircraft stop positions of 2-65 meters, providing greater flexibility and future-proofing for new aircraft types. T2 and T3 allow aircraft stop positions of 8-50 meters.

Improved docking in severe weather T1
A more sensitive laser scan and larger pilot display improve performance during poor weather conditions. Aircraft can be accurately identified and parked from 65 meters.

Ramp Information Display System (RIDS) T1 T2
Safedock A-VDGS can display useful departure and arrival information during the turnaround process to support A-CDM and avoid the investment in a separate RIDS. The T1 offers expanded RIDS capability with 49 static alpha/numeric characters plus scrolling or alternating text. With Safedock T2 you can display messages of up to 30 characters.

Extended readability T1 T2
Safedock T1 and T2 feature larger, high-intensity LED displays for improved visibility and better performance in poor weather.

High-resolution camera T1 T2
With automatic recording of each docking you can explore the cause of an accident to prevent it from happening again and avoid paying for mistakes made by others.

Graphical user interface T1 T2 T3
SafeControl Apron Management provides a modern graphical user interface that ensures situational awareness at the gate, from real-time gate occupancy status, to up-to-date flight information from AODB and status of all integrated equipment. The system allows for remote control of the Safedock A-VDGS and provides views based on user role.

A-SMGCS integration (GAP-Filler) T1
The Safedock A-VDGS technology used for docking can also be used to track the position of aircraft at the gate as they arrive or are pushed back for departure. Position details are sent to the A-SMGCS via SafeControl Apron Management. SafeControl Apron Management can also use A-SMGCS data to automatically activate docking systems based on the proximity of aircraft to the gate.

Stand equipment communication T1 T2
To ensure safe and efficient gate operations, Safedock A-VDGS enables the exchange of information with other stand equipment. For example, on gates with multiple centerlines Safedock can send information to the PBB so it can be prepositioned for quick connection.

Connection to lead-in lights/ Auto-controlled apron lights T1 T2
Via SafeControl Apron Management, Safedock A-VDGS can be connected to the apron lights, ensuring they are only used when needed to reduce fuel consumption and emissions. The configuration can be adapted to different gates and locations.

Aircraft verification safety check T1 T2 T3
Our patented 3D laser technology scans the gate area vertically and horizontally to capture and track aircraft. The unique horizontal scan measures parts of the aircraft on either side of the centerline to discriminate between aircraft types and subtypes. Safedock verifies with 100% accuracy that the approaching aircraft is compatible with gate and adjacent gate rules and is safe to park.

Automatic start of docking T1 T2 T3
SafeControl Apron Management enables fully automated docking by starting the A-VDGS and initiating the docking via a feed from your flight information system (FIS), saving valuable turnaround time.

GSE integration T1 T2 T3
GSE (e.g. boarding bridges, 400Hz ground power units, pre-conditioned air) can be monitored and controlled by SafeControl Apron Management. Integration with other equipment allows our systems to check for obstacles, such as opened pop-up pits or wrongly positioned PBB, which also allows for early indications of equipment failure.

Parking accuracy of 10 cm T1 T2 T3
Accurate parking facilitates faster gate turnarounds by minimizing the time to get the aircraft in the correct position and connected to the PBB.

LED display T1 T2 T3
A high-intensity display with high refresh rate allows for optimal viewing by pilots and ground crew. The display automatically adapts its resolution to changing ambient light conditions, providing better performance in poor weather. Averaging 300W, Safedock A-VDGS has low power consumption, which is beneficial for the environment and the product's lifecycle.

Distance to go indicator T1 T2 T3
A digital countdown of the distance between the aircraft and the stop position assists the pilot and minimizes mistakes.

Closer clearance distance T1 T2 T3
ICAO Annex 14 regulations allow for tighter wing span clearance at gates if an A-VDGS system is used.

Blocks on/off T1 T2 T3
Safedock A-VDGS shares real-time information via SafeControl Apron Management on when the aircraft is parked, ready for pushback and when it has left the gate, providing accurate data for planning and revenue management.

Storage of configuration files T1 T2 T3
With SafeControl Apron Management you always have the latest data available in one central location.

Real-time information T1 T2 T3
Real-time information regarding operation and gate status ensures that the right decisions are made and that maintenance is planned efficiently.

Less fuel burn and fewer emissions T1 T2 T3
Safedock A-VDGS provides the fastest way from touchdown to gate without the need to wait for ground crew. This decreases delays and wasteful fuel burn.

ICAO compliance (includes recommendations) T1 T2 T3
ICAO Annex 14 recommends that VDGS should display "STOP" in red. All Safedock models display text in red without the need for an additional display.

MARS T1 T2 T3
To increase efficiency, airports often use complex MARS (Multiple Aircraft Ramp System) configurations to allow parking of multiple smaller aircraft when a larger aircraft is not occupying the gate. Safedock A-VDGS and SafeControl Apron Management offer the flexibility to handle multiple centerlines and complex gate layouts.

Safedock
Type 1

Advanced Visual Docking Guidance System (A-VDGS)

The most efficient, safe and predictable ramp operation during all operating conditions.

Integrity is key to safety and efficiency

An advanced visual docking guidance system (A-VDGS) must never fail to notify the pilot when it is not safe to proceed.

ADB SAFEGATE's Safedock Type 1 A-VDGS is designed with safety and availability in mind to provide intuitive azimuth guidance and accurate distance-to-go information to both pilots for safe, efficient and precise aircraft parking at a gate during all operating conditions and without marshallers.

Technology you can trust

Safedock interfaces with airport and airline systems, directly or via our SafeControl Apron Management software, to access flight information, such as the scheduled aircraft type and adjacent gate rules, allow automated docking, share real-time gate intelligence and provide management of the turn process.

Only ADB SAFEGATE's patented 3D laser scanning technology scans the gate area vertically and horizontally to capture and track aircraft. The unique horizontal scan allows the A-VDGS to measure parts of the aircraft on either side of the centerline to discriminate between aircraft types and subtypes. The system matches results against a predefined profile for the expected aircraft type and verifies with 100% accuracy that the approaching aircraft is compatible with gate and adjacent gate rules and it is safe to park. The 3D scan also ensures precise parking for a wide range of parking distances and curved approaches.

Safedock does not rely on ambient light and can detect and adjust for low visibility conditions so that availability and safety are never compromised during darkness or bad weather. Safedock has been put to the test on more than 7,000 gates at more than 300 airports worldwide and is proven and trusted in all visibility conditions including rain, fog, snow, extreme sunlight and darkness.

The Safedock Type 1 includes an advanced digital laser, a wider scanning angle and an extra-large, high-intensity LED display to provide the fastest and safest way to dock aircraft and the flexibility to accommodate large aircraft, tight parking spaces and multiple centerlines. The apron scan option adds another layer of safety to standard ramp procedures by scanning the gate area during the docking process for obstacles that may pose a hazard. If an object is detected, the pilot is instructed to wait until the object is cleared.

The Type 1 LED display has the added capability to perform as a Ramp Information Display System (RIDS) to communicate critical information to flight and ground crew during the turn process in support of an airport surface CDM program.

ADB SAFEGATE

Safedock Type 1 A-VDGS key features:

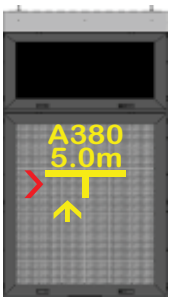
- Patented 3D laser scanning technique tracks the lateral and longitudinal position of an approaching aircraft.
- 3D scan verifies with 100% accuracy that the approaching aircraft is compatible with gate and adjacent gate rules.
- One system is capable of handling all aircraft types at a single gate.
- Technology allows gate docking in all weather conditions, all visibility/lighting conditions and during ramp closures.
- Intuitive active guidance is provided to both pilots based on the position of the aircraft.
- One system can handle multiple centerlines (T1 allows maximum separation between centerlines of 30°).
- Passenger boarding bridge interface capability enhances ramp safety.
- Larger LED display and wider viewing angle provide expanded RIDS capabilities and improve awareness.
- Integrated IP camera records every docking and can be used for ramp surveillance.
- Apron scan enhances safety procedures with object detection within the laser scanning angle. (Option)
- Split system mount accommodates tight parking and large aircraft and provides optimal viewing and gate flexibility. (Option)
- Direct interface with airport and airline systems and ground support equipment for real-time gate intelligence.
- Advanced integration and data sharing (A-CDM) is easy via SafeControl Apron Management.
- Operator panel is used to manage the A-VDGS from the apron and includes an emergency stop function.
- Easy to maintain and update, high reliability and low cost of ownership.

Ramp Information Display System (RIDS) capability:

Static characters: 7 rows, 7 alpha/numeric characters per row
Scrolling text: 50 characters on any row
Alternating text: 7 characters x 4 text blocks on any row
Dual color: Yellow or red available on every row

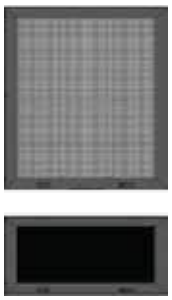
Type 1 technical specifications:

Sensor technology:	Infrared laser with patented 3D scan
Stop position accuracy:	10 cm (3.9 inches)
Stop position distance:	2 - 65 m (6.56 - 213 feet)
Azimuth accuracy:	10 cm (3.9 inches)
Horizontal scanning angle:	±30°
Maximum separation between centerlines:	30°
Display type:	High intensity LED
LED configuration:	42 LED modules
LED resolution:	16 x 16 diodes per module
LED color:	All modules 2 color (yellow and red)
Visibility angle:	170°
Readability distance:	180 m (590 feet)
Number of RIDS characters:	49 static alpha/numeric; can alternate/scroll text on any line
Data interface:	Ethernet
Power supply:	115/230VAC, +10%, 50/60Hz
Laser classification:	Class 1 eye safe / digital
Operational temperature:	-25°C – +50°C (-13°F – +122°F)
Wind load:	Up to 44 m
Snow load:	Up to 1000 N/m²
IP classification:	IP54 (operator panel IP65)
Dimensions:	1,840 h x 1,094 w x 724 d mm (72 h x 43 w x 28.5 d inches)
Weight:	155 kg (342 lbs)



Pilot guidance view

RIDS capability


Mount laser separate from pilot display


Operator panel

www.adbsafegate.com

Safedock
Type 2

Advanced Visual Docking Guidance System (A-VDGS)

The most efficient, safe and predictable ramp operation during all operating conditions.

Integrity is key to safety and efficiency

An advanced visual docking guidance system (A-VDGS) must never fail to notify the pilot when it is not safe to proceed.

ADB SAFEGATE's Safedock Type 2 A-VDGS is designed with safety and availability in mind to provide intuitive azimuth guidance and accurate distance-to-go information to both pilots for safe, efficient and precise aircraft parking at a gate during all operating conditions and without marshallers.

Technology you can trust

Safedock interfaces with airport and airline systems, directly or via our SafeControl Apron Management software, to access flight information, such as the scheduled aircraft type and adjacent gate rules, allow automated docking, share real-time gate intelligence and provide management of the turn process.

Only ADB SAFEGATE's patented 3D laser scanning technology scans the gate area vertically and horizontally to capture and track aircraft. The unique horizontal scan allows the A-VDGS to measure parts of the aircraft on either side of the centerline to discriminate between aircraft types and subtypes. The system matches results against a predefined profile for the expected aircraft type and verifies with 100% accuracy that the approaching aircraft is compatible with gate and adjacent gate rules and it is safe to park. The 3D scan also ensures precise parking for a wide range of parking distances, curved approaches and multiple centerlines.

Safedock does not rely on ambient light and can detect and adjust for low visibility conditions so that availability and safety are never compromised during darkness or bad weather. Safedock has been put to the test on more than 7,000 gates at more than 200 airports worldwide and is proven and trusted in all visibility conditions including rain, fog, snow, extreme sunlight and darkness.

One Safedock Type 2 system has the flexibility to accommodate all aircraft types at a single gate and handle multiple centerlines within the laser scanning angle. The Type 2 high-intensity display is comprised of LED modules in yellow or red and is available in an 18 or 24 LED module configuration.

The Type 2-24 LED display has the added capability to perform as a Ramp Information Display System (RIDS) to communicate critical information to flight and ground crew during the turn process in support of an airport surface CDM program.

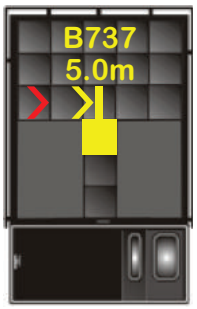
ADB SAFEGATE

Safedock Type 2 A-VDGS key features:

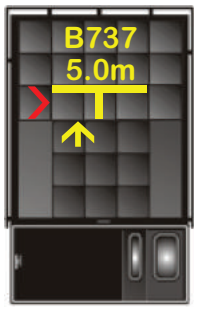
- Patented 3D laser scanning technique tracks the lateral and longitudinal position of an approaching aircraft.
- 3D scan verifies with 100% accuracy that the approaching aircraft is compatible with gate and adjacent gate rules.
- One system is capable of handling all aircraft types at a single gate.
- Technology allows gate docking in all weather conditions, all visibility/lighting conditions and during ramp closures.
- Intuitive active guidance is provided to both pilots based on the position of the aircraft.
- One system can handle multiple centerlines (T2 allows maximum separation between centerlines of 18°).
- Passenger boarding bridge interface enhances ramp safety.
- LED display provides RIDS capabilities to improve awareness.
- Integrated IP camera records every docking and can be used for ramp surveillance. (Option)
- Interface with airport and airline systems and ground support equipment for real-time gate intelligence.
- Advanced integration and data sharing (A-CDM) is easy via SafeControl Apron Management.
- Operator panel is used to manage the A-VDGS from the apron and includes an emergency stop function.
- Easy to maintain, high reliability and low cost of ownership.

Type 2 technical specifications:

Sensor technology:	Infrared laser with patented 3D scan
Stop position accuracy:	10 cm (3.9 inches)
Stop position distance:	8 - 50 m (26 - 164 feet)
Azimuth accuracy:	10 cm (3.9 inches)
Horizontal scanning angle:	±13°
Maximum separation between centerlines:	18°
Display type:	High intensity LED
LED configurations:	T2-18 (18 LED modules) T2-24 (24 LED modules)
LED resolution:	16 x 16 diodes per module
LED color:	2 colors (yellow and red)
Visibility angle:	48° (with sun shade)
Readability distance:	160 m (525 feet)
Number of RIDS characters: (T2-24 only)	30 static alpha/numeric; can alternate/scroll text
Data interface:	Ethernet
Power supply:	115/230VAC, +10%, 50/60Hz
Laser classification:	Class 1 eye safe
Operational temperature:	-25°C – +50°C (-13°F – +122°F)
Wind load:	Up to 44 m
Snow load:	Up to 1000 N/m²
IP classification:	IP54 (operator panel IP65)
Dimensions w/ sun shade:	1,520 h x 900 w x 422 d mm (59.8 h x 35.4 w x 25.6 d inches)
Weight:	100-110 kg (220-243 lbs)



T2-18 pilot view



T2-24 pilot view

T2-18 LED configuration

T2-24 LED configuration

RIDS capability (T2-24 only)
6 rows, 4-6 characters per row

Operator panel

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ADB SAFEGATE

Safedock
Type 3

Advanced Visual Docking Guidance System (A-VDGS)

The most efficient, safe and predictable ramp operation during all operating conditions.

Integrity is key to safety and efficiency

An advanced visual docking guidance system (A-VDGS) must never fail to notify the pilot when it is not safe to proceed.

ADB SAFEGATE's Safedock Type 3 A-VDGS is designed with safety and availability in mind to provide intuitive azimuth guidance and accurate distance-to-go information to both pilots for safe, efficient and precise aircraft parking at a gate during all operating conditions and without marshallers.

Technology you can trust

Safedock interfaces with airport and airline systems, directly or via our SafeControl Apron Management software, to access flight information, such as the scheduled aircraft type and adjacent gate rules, allow automated docking, share real-time gate intelligence and provide management of the turn process.

Only ADB SAFEGATE's patented 3D laser scanning technology scans the gate area vertically and horizontally to capture and track aircraft. The unique horizontal scan allows the A-VDGS to measure parts of the aircraft on either side of the centerline to discriminate between aircraft types and subtypes. The system matches results against a predefined profile for the expected aircraft type and verifies with 100% accuracy that the approaching aircraft is compatible with gate and adjacent gate rules and it is safe to park. The 3D scan also ensures precise parking for a wide range of parking distances, curved approaches and multiple centerlines.

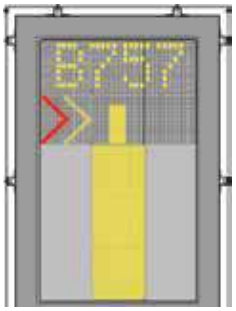
Safedock does not rely on ambient light and can detect and adjust for low visibility conditions so that availability and safety are never compromised during darkness or bad weather. Safedock has been put to the test on more than 7,000 gates at more than 300 airports worldwide and is proven and trusted in all visibility conditions including rain, fog, snow, extreme sunlight and darkness.

One Safedock Type 3 system has the flexibility to accommodate all aircraft types at a single gate and handle multiple centerlines within the laser scanning angle. The Type 3 LED display is comprised of LED modules in yellow or red and is available in a 9 or 15 LED module configuration.

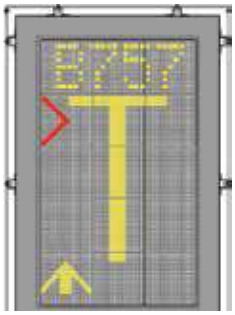
ADB SAFEGATE

Safedock Type 3 A-VDGS key features:

- Patented 3D laser scanning technique tracks the lateral and longitudinal position of an approaching aircraft.
- 3D scan verifies with 100% accuracy that the approaching aircraft is compatible with gate and adjacent gate rules.
- One system is capable of handling all aircraft types at a single gate.
- Technology allows gate docking in all weather conditions, all visibility/lighting conditions and during ramp closures.
- Intuitive active guidance is provided to both pilots based on the position of the aircraft.
- One system can handle multiple centerlines (T3 allows maximum separation between centerlines of 18°).
- Passenger boarding bridge interface enhances ramp safety.
- Interface with airport and airline systems and ground support equipment for real-time gate intelligence.
- Advanced integration and data sharing (A-CDM) is easy via SafeControl Apron Management.
- Operator panel is used to manage the A-VDGS from the apron and includes an emergency stop function.
- Easy to maintain, high reliability and low cost of ownership.



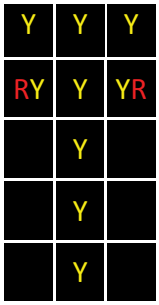
T3-9 pilot view



T3-15 pilot view

Type 3 technical specifications:

Sensor technology:	Infrared laser with patented 3D scan
Stop position accuracy:	10 cm (3.9 inches)
Stop position distance:	8 - 50 m (26 - 164 feet)
Azimuth accuracy:	10 cm (3.9 inches)
Horizontal scanning angle:	±13°
Maximum separation between centerlines:	18°
Display type:	High intensity LED
LED configurations:	T3-9 (9 LED modules) T3-15 (15 LED modules)
LED resolution:	8 x 8 diodes per module
LED color:	2 colors (yellow and red)
Visibility angle:	48° (with sun shade)
Readability distance:	80 m (262 feet)
Data interface:	Ethernet
Power supply:	115/230VAC, +10%, 50/60Hz
Laser classification:	Class 1 eye safe
Operational temperature:	-25°C – +50°C (-13°F – +122°F)
Wind load:	Up to 44 m
Snow load:	Up to 1000 N/m²
IP classification:	IP54 (operator panel IP65)
Dimensions w/ sun shade:	1,396 h x 656 w x 650 d mm (55 h x 25.8 w x 25.6 d inches)
Weight:	90-100 kg (198-220 lbs)



T3-9 LED configuration

T3-15 LED configuration

Operator panel

Ensure ground control safety

Safety

According to the Flight Safety Foundation, 80% of airport accidents occur at the gate and apron area. These are busy, confined areas where aircraft, vehicles and people are in constant motion in all types of weather conditions.

Safedock A-VDGS safely and smoothly guides an aircraft to its correct position by providing the pilot with intuitive signals. With Safedock A-VDGS and SafeControl Apron Management you can reduce congestion and the number of personnel on the ramp, thereby increasing safety for both passengers and staff.

Increase airport efficiency and capacity

Efficiency

Safedock A-VDGS and SafeControl Apron Management link all gates via a local or wide area network and integrate with airport and airline information systems to provide real-time gate status and shared flight data. This results in the fastest time from touchdown to gate and a more efficient ramp operation that is scalable for the future.

Safedock A-VDGS and SafeControl Apron Management let ground staff know at a glance which gates are occupied or available, ensuring aircraft are parked quickly and smoothly in the correct configuration and allowing last minute gate changes and tight time schedules to be met. Safedock A-VDGS and SafeControl Apron Management eliminate reporting delays by automatically capturing and reporting actual in-and-out times for tracking gate utilization and accurate billing. A more efficient airport can defer costly expansion, which means a faster return on your investment.

Let the environment benefit

Sustainability

By shortening the time from touchdown to gate, Safedock A-VDGS and SafeControl Apron Management help keep fuel and power consumption to a minimum.

Gate and apron solutions from ADB SAFEGATE mitigate time spent waiting for gates or ground crew and track the status and utilization of ground power units which results in a significant reduction of fuel burn.

When aircraft are parked faster and gates turned around more efficiently, CO_2 emissions are reduced. With ADB SAFEGATE you bring air travel a little closer to nature.

"Airport performance – safety, efficiency and environmental benefits – is a result of what we do for airports all over the world. Our solutions have become a global standard with thousands of installations over the years"

Christian Onselaere CEO, ADB SAFEGATE

ADB SAFEGATE is a leading provider of intelligent solutions that deliver superior airport performance from approach to departure. We partner with airports and airlines to analyze their current structures and operations, and jointly identify and solve bottlenecks. Our consultative approach enables airports to improve efficiency, enhance safety and environmental sustainability, as well as reduce operational costs. Our portfolio includes solutions and services that harmonize airport performance, tackling every aspect of traffic handling and guidance, from approach, runway and taxiway lighting, to tower-based traffic control systems and intelligent gate and docking automation.

ADB SAFEGATE has 900+ employees in more than 20 countries and serves some 2,000+ airports in more than 175 countries.

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