



SECURITY SOLUTIONS

AIRPORTS



TONALI
Security First

SECURITY SOLUTIONS

Worldwide continuously increasing terrorism and criminal events have greatly highlighted security prevention role for goods and persons safeguard.

In the years, TONALI have been more and more focusing on design and development of:

- dedicated solutions for people and vehicle access control
- buildings security control
- new technologies to improve territories security control



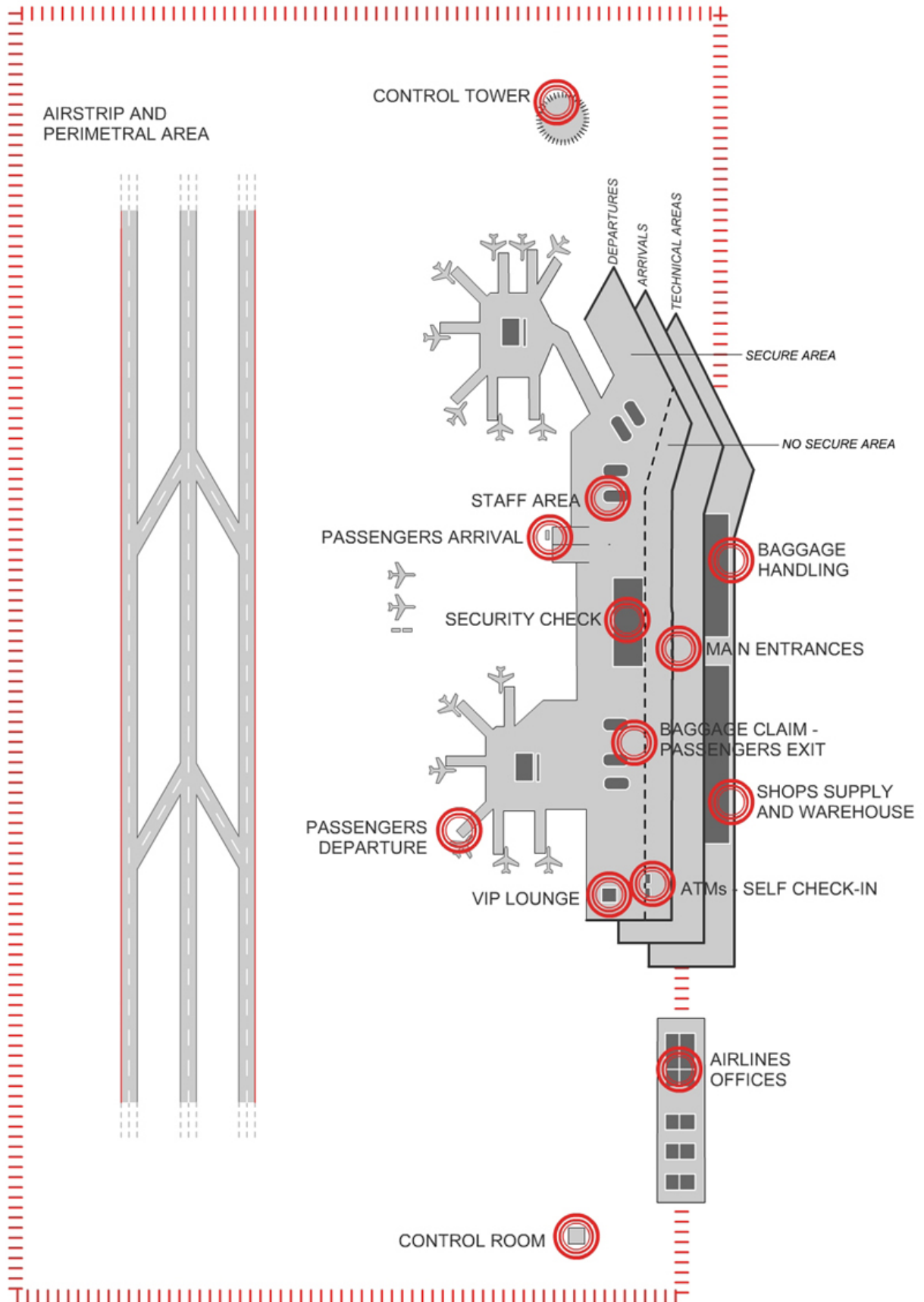
TONALI focused the attention in order to answer new security needs in environments like Airports, Harbours, Train Stations, Hospitals, Banks, Ministries, Prisons, Stadiums, Power Plants, Civil Protection, Territories.

With the awareness that the customer satisfaction is the target of every project, TONALI pay particular attention in supporting their clients.

After sales attention and servicing are granted on the domestic and international markets. Fast and professional reactions are a must for the best installation practice.

Reaching the best solution, granting their presence during all the project steps – analysis, development, installation and after sale support –, is the TONALI key task.

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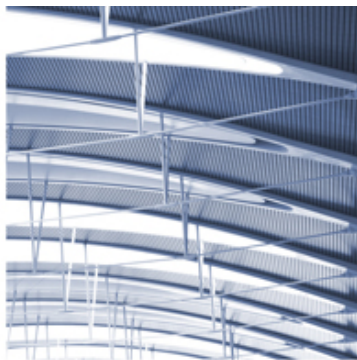
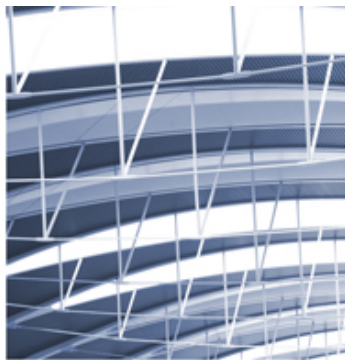
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SECURITY IN AIRPORTS

Millions of individuals crowd airports worldwide everyday: terrorism, illegal immigration, organized crime beating, besides transports handling are the main goals to be securely and remotely achieved.



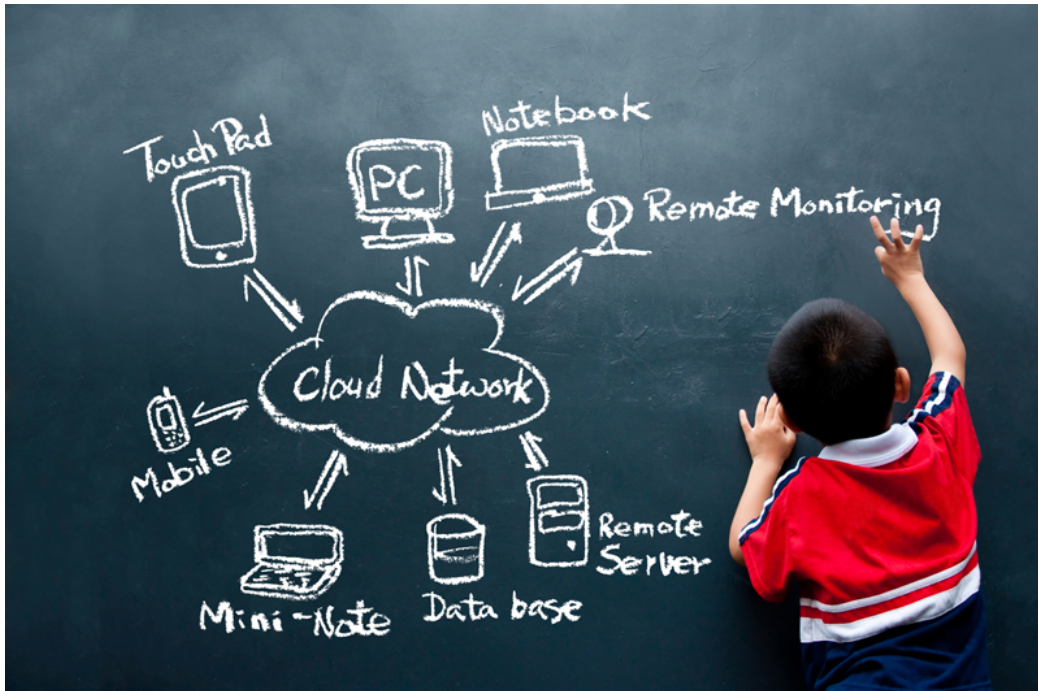
TONALI'S targets:

- enhancing available resources and security measures in order to achieve the best possible passengers and staff screening.
- providing services and materials to reduce staff and related costs while performing closer and closer controls
- creating security procedures for passengers, visitors and staff quick and safe controls, in total respect of existing laws and norms.

Proposed solutions integrate Tonali's several products to meet tomorrow's airports needs.

AIRPORTS HANDLING SOFTWARE

In a global world like the one we live in today speed and errors reduction are a must to **manage the available resources effectively**. Bookings, departures, arrivals, flights information, staff better employment and a customer and costs reduction oriented service are the most important target.



TONALI, in collaboration with SEETEK, design and install dedicated software for airports handling.

User friendly software "SMART" provides a number of functions:

- ADCS/L-Dcs: Airport Departure Control System
- PTS: Passenger Tracking System, for passengers who already checked on-line or at the self-service check-in (KIOSKs).
- ARMS: Work Force Management
- AODB-AIS: Airport Operational Data Base
- FIDS: Flight Information Display System
- STAND: Aircrafts Park Areas Assignment
- SMP: IATA/ATFTN messages interpretation
- BILL: Billing & Invoicing
- Lode Stone: Aircraft Weight and Balance

GLOBAL INTERACTIVE COMMUNICATIONS

Communications among operators and nets handling are of paramount importance in an airport.



Granting information security and compliance are the ground which TONALI built on and installed:

- **Airport global communications LAN and WAN**
- **VOIP hardware** integrating all the various communication systems (satellite, Wi-Fi, Wi-Max, DECT, GPRS, UMTS, and so on)
- **Dedicated communications software** featuring handling procedures with an eye to costs, priority and security levels, anytime connection ability to the operators on runways in the events of black-out, criminal actions, etc.
- **Integrated Billing software** conceived to manage as a whole invoicing to the several airport-services users

ENTRIES

TONALI offer solutions to handle large users throughputs, even in the presence of bulky baggage.



1. **SLIDING GATE Securslide:** elevate gate opening/closing speed & limited space-taking. In order to reduce heat dispersion TONALI suggest a double installation to create a vane. Securslide is also suitable to operate as an emergency escape door.
2. **REVOLVING-TURNSTILE GATE Revolving:** although reduced, compared to Securslide solution, high flows are achieved, with large trolleys and baggage transit capabilities and costs-reducing controlled heat dispersion. Central turnstile wings are collapsing in the event of an emergency.

ATM & SELF OPERATED CHECK-IN UNITS PROTECTION

ATM and automated Check-in devices are more and more frequent in airports, either in cared for and unprotected areas. **Users and belongings security while attending to money withdrawing or self checking-in** is duly provided by TONALI demiSELF, a measure to also protect the equipments themselves from vandals.



- While attending to self-operations access is given to users only.
- In the event of an emergency situation the system is designed to generate an alarm.
- Controlled area is also checked for users faints or abandoned objects.
- Outside use is also possible with suitable conditioning.

PASSENGERS TRACKING AND SECURITY CHECKS

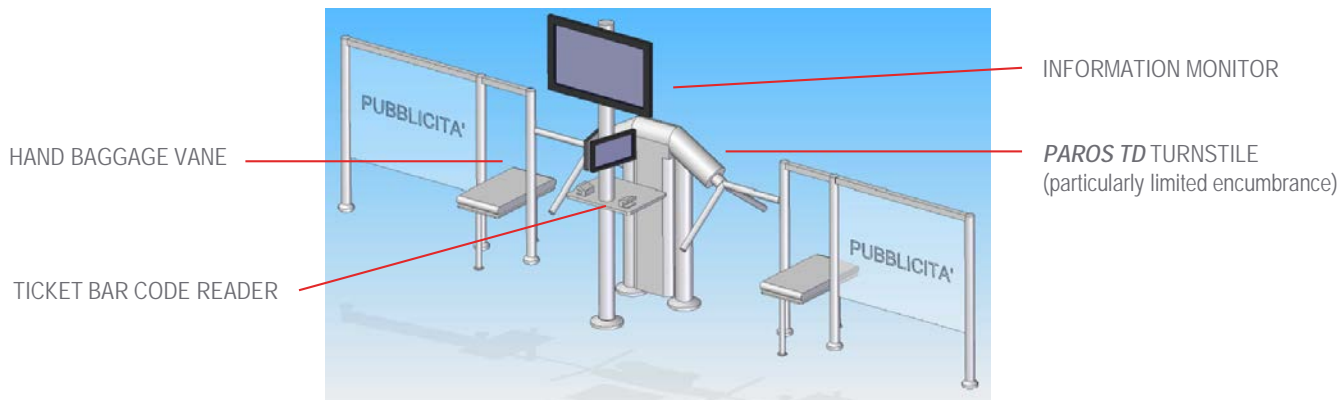
The recent introduction of on-line check-in procedures, previous recording and identity verification of arriving travellers to the airport is no longer effected. Neither ticket frauds are timely detected by air companies employees.



In collaboration with SEETEK, **TONALI** offer a comprehensive system for an access control to vulnerable areas with the integrated aid of turnstiles, ticket bar-codes readers, display monitors, with no need to physically attend the site: **personnel dramatic costs reduction and deeper information on transit passengers are at hand.**

According to the available space **DELO**, **TILOS** and **PAROS T** turnstiles are the flexible answer from **TONALI**'s catalogue to quickly create lanes.

- **Bar code reader:** checks ticket validity
- **Software:** in the event that a **passenger has no valid ticket** or is **particularly late**, additional information or reasons for not accepting him (flight delays, cancellations,...) is displayed
- **Turnstiles:** for transits handling
- Described system is automatically working and no personnel at the gate is requested.



ANTITERRORISM

Periodical and random controls are performed as standard practice. For these activities TONALI offer a specific product, the **noRADIO** booth. **noRADIO** checks for radioactive materials a person in transit in **just 7 seconds**.

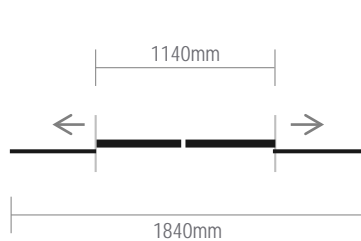


PASSENGERS BOARDING & DESEMBARKING: ACCESS TO FINGERS

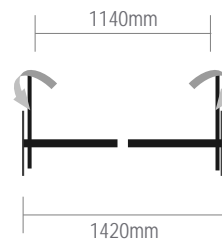
Gates of the *Compact Plus* series with shifting doors are offered by TONALI for a quick and reliable access-control to "fingers".



- **Space availability is always looked for:** shifting doors special movement considerably reduces needed space compared to traditional sliding doors.
Doors opening/closing time: from 1,5 to 4 sec (adjustable). Doors leaves never open against people in transit.



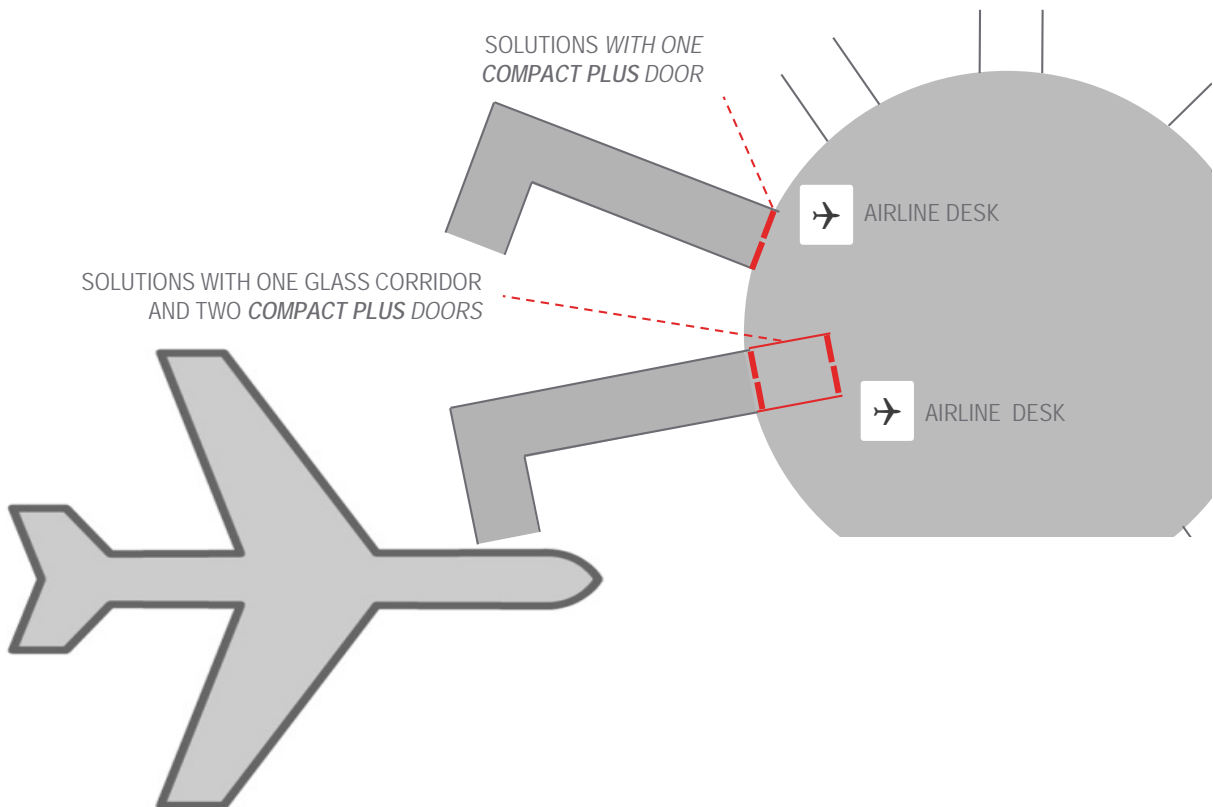
TRADITIONAL SLIDING DOOR



COMPACT PLUS DOOR

- *Compact Plus* series cleverly integrate an emergency escape door within the same gate: a well tested panic push-bar avoids installing an additional emergency, escape route door.
- Passengers with hand baggage or challenged people can easily transit.
- When boarding is completed access to the finger is automatically locked.

Compact Plus series are available in 3 versions: **Compact Plus** with framed doors; **Compact Plus Light** with polished edges doors and the high-impact, reinforced **Compact Plus R**.



NO-RETURN CORRIDORS: PASSENGERS TRANSIT HANDLING

Passengers flow is to be constantly controlled and turning back to sensitive areas (runways, , boarding/disembarking area gates, moving from domestic to international zones...) must be absolutely avoided. TONALI's answer to these needs envisages no-return corridors, by the means of which transit in a direction only is permitted. In the event of a person inverting his move, or a waiting visitor attempting to enter sensitive areas from the outside, the system will generate an alarm, locking at the same time the gate and impeding any further access.



TONALI have three different proposals to these threats:

- **HALF-HEIGHT NO-RETURN LANES** one-sense only flow is checked through photocells and turnstiles of the Paros H or Tilos series, depending on the needs.
PROS: transit with baggage; high transit speed; limited costs
- **FULL-HEIGHT NO-RETURN LANES** one-sense only flow is checked through **some video-analysis systems** like the **OneWay**. Once a flow inversion is detected the **Speedy** gate locks in less than 2 seconds.
PROS: transit with baggage; high transit speed; increased security (no jump-over) compared to half-height gates lanes

- **ALTERNATE INTERLOCKED DOORS BOOTH:** transits controls are performed through a Duetto Midi Ellisse booth, in the stretched-out version, specifically designed for use in airports with limited passengers flows, where additional security is preferred to large throughputs handling.



Differently from the a.m. no-return lanes the Duetto Midi Ellisse booth opens the first double-doors fitted gate (low-security side) letting people in. When doors are closed and locked the second gate (high-security side) opens letting people go out. In the 2 seconds the booth stays closed, the volumetric single-passage checking –system analyses the in-booth volume looking for abandoned objects.

PROS: transit with baggage; in-booth abandoned objects check; increased security compared to previous solutions.

NO-RETURN CORRIDORS: BAGGAGE COLLECTION AREA

Waiting people in the Arrivals halls should never have access to the Baggage Claim sensitive areas. To this purpose TONALI offer full-height no-return lanes with increased width for passengers with bulky baggage and heavily loaded trolleys. The following points highlight.



- The OneWay video-analysis system is fitted to check the correct exit sense of passengers flowing;
- In the event of a flow inversion or somebody attempting to enter the Baggage Claim area from the Arrival hall, the system generates an alarm and locks the fitted-in **Compact Plus** series gate in less than 2 seconds (adjustable time).
- Lane width is suitable to bulky baggage and large and heavily loaded trolleys (free width is 1340.0 mm)
- Lane length can be customized to different layouts. Additional cameras are fitted to make the OneWay video-analysis system suitable for larger areas to be controlled.
- Depending on the lane length side doors can optionally be added to facilitate Guards interventions.

- TONALI offer additional screening options after the Baggage Claim with KEA turnstiles at the end of the no-return lane.



VIP LOUNGE

Airlines greatly value their Frequent Flyer passengers in some VIP lounges. Access to these areas has to be controlled, being limited to selected persons only.



TONALI are present here too with the double sliding doors gates of the DELO series which grant:

- high transit speed
- design
- security
- customization ability with airlines logos
- transit to challenged people

ACCESS CONTROL: STAFF-ONLY RESTRICTED AREAS

Depending on the requested security level many different solutions are available to control the access to offices and restricted areas. Among the offered advantages the most important one is that no attending personnel is needed with considerable costs reduction.



- **OFFICES CONTROL:** a complete range of interlocked doors booths is available (*Duetto AC*, *Duetto AC Midi*) and turnstiles (tripod style *Paros 118* and flag type *Paros H*) possibly integrated with the *Naxos* series.
- **ACCESS CONTROL OF PERSONNEL TO RESTRICTED AREAS:** a complete range of interlocked doors (*TOP150*, *EM24K*, *Tonda Light K*) or revolving turnstile (*Univers AC*) is available.

ACCESS CONTROL TO LOGISTICS & REMOTE TECHNICAL ROOMS

- LOGISTIC AREAS: BAGGAGE HANDLING, STORES, GOODS LOAD/UNLOAD

Staff access to baggage handling and shops, duty-free, restaurants, goods loading/unloading areas can be easily controlled with interlocked doors booths of the TOP150 series. Single-passage checks and high-speed transits are guaranteed.



- REMOTE TECHNICAL ROOMS: ELECTRICAL CABINS, FUEL DEPOSITS,...

An even more careful control must be performed to give access to external areas, either to runways or to remote technical rooms. TONALI's present in this sector too with **full height turnstiles of the Milos series**: made in stainless-steel they are suitable to be installed to outside weather. Both manually or electric motor assisted they can be integrated with badge/biometric readers.

Additional anti-terrorism devices, like bollards or heavy road-blockers are available against intrusion attempts with heavy trucks.



SECURE ACCESS TO CONTROL TOWERS

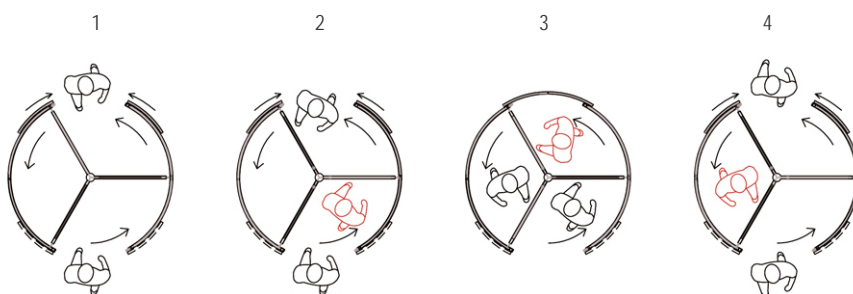
Control towers represent one of the most sensitive areas of an airport. Depending on in-tower offices different security levels and access procedures are envisaged.

■ MAIN ENTRANCE

TONALI's revolving doors of the **Univers AC** series are the proposed solution to the Control Tower access control issue. Univers AC series revolving doors are complete physical barriers, providing **important throughputs with minimalist design and full integration with secure-access control-systems**.



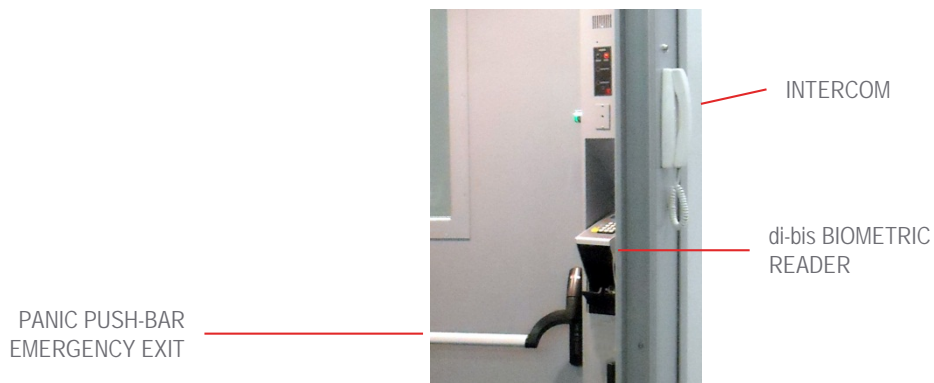
- Single-passage check is achieved by the OnlyOne Pro checking device.
- Thanks to the cleverly working additional sliding doors, Univers AC series never reverse the turnstile rotation, so common in the traditional revolving units, or force users to modify their walking path in the event of a **unauthorized access attempt**.





■ E.D.C. AND HIGHEST SECURITY LEVEL AREAS

Biometric Screen is an alternate, interlocked doors anti-intrusion booth. Electric motor assisted it grants the highest security level to restricted areas. Access procedure to enter the protect area is performed through the **sequential use of a personal PIN or badge, plus the single-presence check and further verification of user biometric data.** As an additional security measure people entitled to enter these areas are associated with their weight, to be checked at every transit.



PANIC PUSH-BAR
EMERGENCY EXIT

INTERCOM

di-bis BIOMETRIC
READER

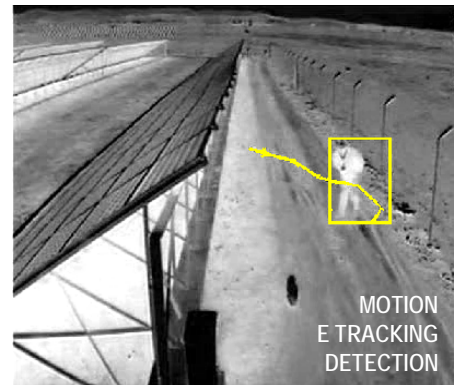
INSIDE DETAILS

Multiple controls are performed in a single place:

- Transit is allowed to authorized and previously recorded personnel only;
- People in transit are individually checked by pre-recorded weight.
- Emergency escape door integrating a panic push-bar.
- Electric motor assisted automatic high-side door. When the high-side area is busy this door stays open to provide a quick escape route in the event of an emergency

RUNWAYS & BOUNDARIES CONTROL

Airports boundaries and runways in the specific are often subject to intrusion attempts. TONALI have the right solution to these issues with *Thermogard Plus*, the system which constantly monitors the access to sensitive areas with a thermal-camera assisted video-analysis software, duly integrated by motion and tracking routines.



- No lighting is needed with relevant, considerable savings
- Continuous operation is granted also in case of adverse weather conditions (fog, snow, smoke, wind ...)
- Remarkable false alarms reduction compared to the traditional CCTV systems using standard cameras with IR illuminators and/or infrared barriers and/or microwaves devices
- User friendly procedures. Security staff feels more comfortable and local interventions rate is dramatically reduced
- Investment, managing and service costs are reduced, whilst running consumptions are definitely cut
- Alarms are handled by one system only
- Cameras are self-protected against tampering and thefts
- Authorized movements within the protected area can be customised





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