Critical Infrastructure and High Risk Sites in Australia

Your guide to protecting at risk sties against threats

GUNNEBO®

Contents

GUNNEBO®

Critical Infrastructure VS High Risk Sites

Both Critical Infrastructure and High Risk Sites require optimal security postures in order to operate. Whilst critical infrastructure is deemed by the Australian Government as the services in which our country requires to operate, there are many industries which require the same level of protection, although not technically belonging to the critical infrastructure umbrella.

Critical Infrastructure plays a vital role in our country's well-being, providing services that are essential for the population to be able to live in everyday life. Ensuring this infrastructure is secure and resilient supports productivity and reliability, assisting business activities that promote economic growth. Disruption or failure to critical infrastructure could have serious implications on businesses, governments, and the community, ultimately impacting overall supply security and service continuity.

The resilience and security of these critical infrastructures are crucial for maintaining the stability and function of the Australian economy and society. Ensuring risk assessments are undergone and compliance is maintained will always assist in the upkeep of critical infrastructure. This is why the Australian Government established the Critical Infrastructure Centre, in January 2017. The Critical Infrastructure Resilience, Security coordination article stated the CIC was created "to safeguard Australia's critical infrastructure from the increasingly complex national security risks of sabotage, espionage and coercion."

Similar to critical infrastructure, high risk sites are locations or facilities which require premium security measures in order to operate, they simply aren't deemed as a critical component to the operation of our country. Some of these sites can include correctional facilities, large corporation office buildings, detention centres, stadiums and arenas, areas of mass gathering, locations of worship and more.

So, what is deemed as critical infrastructure?

In Australia, services that are deemed as critical by the Critical Infrastructure Centre include:

- Energy
- Communications
- Data storage or processing
- Financial services and markets
- Water and sewerage
- Health care and medical
- Higher education and research
- Food and grocery
- Transport
- Space technology
- Defence industry

GUNNEBO®

When you need to protect...

When dealing with high-risk and critical infrastructure sites, it is important to think about layering the security posture so there is a level of protection at every turn. Gunnebo are your total security solution provider, with our product portfolio designed to protect from the perimeter all the way down to physical assets.

GUNNEBO®

The Perimeter

Security should begin at the perimeter. Securing a site at the forefront assists in the mitigation of attacks through visual deterrence, protection if under threat from a vehicle and increased overall security. Installation of hostile vehicle mitigation and entrance control can provide high level security that doesn't need to be manned or in some instances operated. These solutions can elevate a site's overall security posture without impeding on the flow of pedestrians or traffic.

Bollards – High Security Bollards PAS 68 & IWA 14-1 impact rated

Our bollard offering has been PAS 68 or IWA 14-1 impact tested and are designed to provide a high level of security. They are hostile vehicle mitigation solutions that protect roadways or perimeters from a vehicle with hostile intent without impeding on freedom of movement for pedestrians. Static bollards provide a fixed or removable solution for public areas. This type of bollard is usually installed surrounding the perimeter, where the flexibility requirement may not be as high. Automated active bollards can be used to control vehicle access into controlled areas. This style of bollard is usually installed at an entrance to a highly frequented area, such as a stadium or driveway into a concourse, so that the bollards can retract when a vehicle requires to gain access.

Road Blockers - PAS 68, IWA 14-1 & ASTM 2656-07 impact rated

Road Blockers impact tested to PAS 68, IWA 14-1 & ASTM 2656-07 classification provide high security protection from vehicle borne hostile attack and are the ultimate deterrent to unauthorised vehicles entering a site. They are formidable visually and their robust and heavy-duty structure provides a durable and reliable means of controlling vehicles into a secure area. Road blockers are used where the highest levels of security and vehicle control are required, where larger vehicles operate or where the site risk assessment considers to be at risk from a vehicle borne hostile attack. We often see road blockers used within a sally port to create a barrier for authorization to occur before entrance into a facility.

GUNNEBO®

Street Furniture

Often hostile vehicle mitigation solutions can look intimidating or uninviting. Street furniture comes in many designs and can even be supplied as a bollard cover solution that is designed to improve the aesthetics of crash rated bollards. For example, Gunnebo's Eco Planter Box is an elegant design that fits easily over the top of existing bollards and provides all the required security features yet does so in a way that doesn't disrupt the environment and softens the visual aspects of security. We can design and engineer a solution that suits your needs.
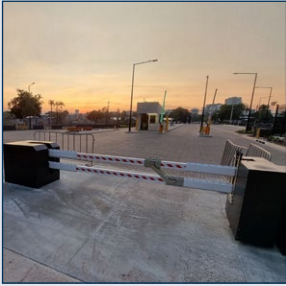
Vehicle Control Barriers

Vehicle control barriers provide a wide range of security and access control levels. In addition, Gunnebo Control Barriers are PAS 68 or IWA-14 impact tested protecting critical infrastructure and high-risk sites from hostile vehicle intent, at the highest levels. They operate similar to a traditional traffic control boom barrier and have a less aggressive appearance to other forms of HVM solutions yet deliver a high level of physical protection for an access point.

Guard Houses

Protecting people is paramount. Ensuring security staff at the perimeter are safe can be achieved by ensuring Security Guard Houses are built with high security in mind. Bullet, Blast and Manual Attack resistant Doors, Windows and Partitions can be customised and engineered to suit your needs. All our products are certified to AS3555.1 and/or EN1627 and EN356 for Manual Attack, AS2343 and/or EN1522 and EN1063 for Ballistics Resistance and EN13123/124-1 and EN13123/124-2 for Blast Resistance. Guard houses are the perfect addition for a correctional facility, Government or other high-risk site where guarding staff are housed on the perimeter.

Crash Rated Gates

Our range of sliding and bi-folding gates including automatic and manual gates, can be customised to suit commercial site requirements and are an ideal solution for both vehicle & pedestrian access control. High security PAS 68, IWA-14 & ASTM 2656-07 impact tested gates that are designated Hostile Vehicle Mitigation solutions and are designed to protect critical infrastructure and high-risk sites at the highest levels.

Full Height Turnstiles

A full height turnstile is a floor-to-ceiling turnstile that employs mechanical rotating barriers to control access to a specific area. They operate much like a revolving door, with one key difference being that they are specifically designed to allow access to only one person at a time. They do this by locking behind each person that enters the system. These full height turnstiles can be adapted to both indoor and outdoor use and provide a higher level of security than speed gates due to being impossible to circumvent them by jumping over or crawling under the barrier arms. They are rugged, low-maintenance solutions that work well in the harshest outdoor environments, making them an ideal entrance solution for the perimeter of a site such as for a staff carpark or back of house access.

GUNNEBO®

Building Hardening

Hardening a building's facade is often a much required addition to a security posture. These solutions are developed to strengthen a physical building to protect people, property and assets; offering a maximum level of security for sites, staff and customers. All solutions are designed to protect against threats, including against vandalism, manual attacks, ballistics, and blasts. Solutions have been certified by independent organizations and laboratories in accordance with European or Australian standards and regulations, providing peace of mind in the façade's strength.

Bullet, Blast and Manual Attack Resistant Curtain Walling

Buildings can present challenges when implementing physical security solutions, in that it is important to retain the aesthetic qualities of the building whilst hardening the security features. Gunnebo addresses these problems by using specially formulated glass that is tested and certified to meet the highest security ratings, and where possible does not contain polycarbonate and as such, will not degrade in quality over time. Our curtain walling solutions are also available with bullet, blast and manual attack rated double glazed units. These solutions assist in significantly reducing energy consumption in buildings whilst maintaining the highest security level. Frames are also tested and certified and are available in steel or aluminium so that they can be seamlessly integrated into the building design.

Manual Attack and Ballistic Resistant Roller Doors

The best protection for blocking all accesses to your building and ideal for the creation of bunkers and panic rooms. Our Manual Attack and Ballistic Resistant Roller doors provide high ballistic protection in your buildings according to the European Standard EN 1522. Using slats of 50 mm height, this model can be installed in tight spaces offering bulletproof FB4-S certified protection. Furthermore, this roller shutter will protect against thieves offering a certified CLASS 5 (RC 5) according to EN 1627 manual attack European standard. Manual Attack and Ballistic Resistant Roller doors can add an additional layer of protection for a high-risk site.
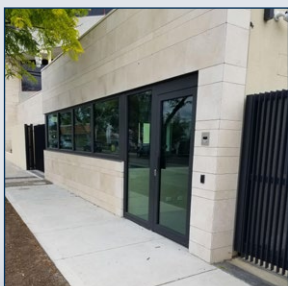
Certified Bullet and Attack Resistant Modular Walling

The Gunnebo Certified Bullet and Attack Resistant Modular Walling system is designed for use in High-Risk sites and any other buildings where high security is required. Ideal to be used in conjunction with our Bullet and Attack resistant Doors and Windows, the WallTek Modular system is fully certified to AS3555.1 Level 2 (10 minutes) Australian physical attack standards and AS2343 R2 bullet resistance standards. The WallTek is also a cost-effective security solution for those requiring a mid to full height bullet and attack resistant walling solution whether stand-alone or lining an existing space.

GUNNEBO®

Front Entrance

A buildings front entrance can be designed utilizing a range of different solutions, dependent on the site's operational and protection requirements. You can safeguard members of the public, your staff, and contractors working on your premises, by utilizing entrance control solutions and software, allowing you to keep track of who comes into your building and control how they enter. And while security is the main objective when installing solutions into a front entrance, designing an aesthetically pleasing space is equally as important as first impressions count. Our entrance control solutions are designed to increase people flow, provide optimal levels of security, and deliver better functionality and accessibility.
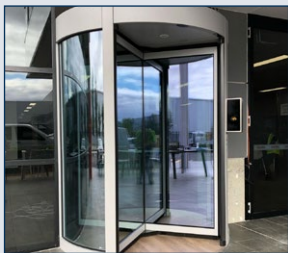
Revolving Doors

Revolving doors are internal or semi-external motorised security solutions with a bi-directional flow that provides fast and stylish access control ideal for commercial buildings, where a steady stream of people needs to be managed with elegance and efficiency. These doors prevent tailgating and piggybacking for single person entry and operate unsupervised, ensuring only one person travels through with each valid access.
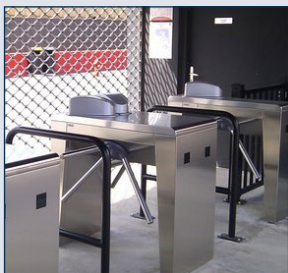
Tri-Arm Turnstiles

Tri-Arm turnstiles are low height access control gates with a three-armed rotor. When passage is authorised, the user manually rotates the arms to pass through. Tri-Air turnstiles are compact, cost-effective, and suitable for internal or external installation. These turnstiles are also available with beam-sensing technology within the barriers as well as pressure-sensitive lids to ensure only one person transits at a time. Their robust design makes them ideal for environments with a large flow of people such as parking or staff only access areas.


Speed Gates

Speed gates are automated flap leaf panelled gates with electronic fraudulent detection that provide an effective barrier for unauthorised access. A high flow rate combined with a slim and elegant design make the speed gate ideal for a lobby or where main access is granted. These gates can also be fitted with biometric equipment such as facial recognition or third-party systems such as lift integration for larger commercial style buildings. All Speed Gates are equipped with sensor technology to ensure single person passage with many ways to monitor alarms and breaches, triggering systems such as CCTV or access control monitoring. These features allow for high level visibility over staff and access levels daily. Speed gates are ideal for internal environments and require a small footprint for installation.

GUNNEBO®

Security Portals

Security portals or mantraps as they are sometimes known incorporate two sets of automated doors. The second set of doors only opens once the first closes and verifies single person detection. With the single person detection and ability to be fitted with biometrics such as facial recognition, security portals can confirm exactly who is travelling through the portal. This solution is for higher risk sites or access to areas such as IT rooms or areas storing sensitive data. Security portals are unmanned, entirely automated and provide a visual and physical deterrent to fraudulent entry.
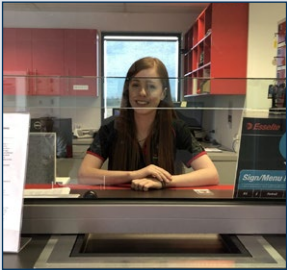
Security Desks

High risk sites traditionally house Security Personnel at the Entrance of a building to help with identifying visitors prior to allowing access. To ensure safety and security of personnel Gunnebo can design and develop Security Desks to suit an individual sites needs. With bullet, blast and manual attack resistant Windows, Doors, and Partitions, we also can provide transfer solutions including a full bullet resistant option, fully certified to Australian Standards.

EntraLinq

EntraLinq is a remote access control software application that provides full control and analytics of your Gunnebo product from anywhere, no matter if on site or if working remotely. The software runs on smartphones, tablets, or desktop interface via connection to the cloud, providing users with the ability to control access, check connectivity, and monitor data, from anywhere in the world. With a range of available bundles, you can select a module that will suit the requirements of your organization, so you get the most out of the innovative software.

GUNNEBO®

Secured Areas and Assets Within

Protecting secured areas and the assets within is a critical requirement in a high-risk or critical infrastructure site. With highly sensitive data, operations and assets housed in facilities, ensuring that only pre-authorized personnel can obtain access is paramount in the security of a facility.

SoloTek

SoloTek is a door frame mounted single person detection device ideally suited to managing people's access through doorways. For the sensitive zones within high-risk and critical infrastructure sites, the access control systems need to be bolstered in order to count the number of people passing between non-secure areas and secure areas. This solution is compatible with a range of access control systems and doesn't allow for unauthorized people to gain access into secured areas.

Interlocking Doors

Interlocking doors act as a security chamber for access from one area to another, usually of a higher security level. To gain access, you are required to be an authorized individual with correct credentials to progress to the secured area. These doors come in both single person detection or multi-user accessibility options and are designed to provide the right levels of protection including vandalism, manual attacks, ballistic or blast resistance for sensitive areas – without compromising freedom of movement for authorized individuals or efficiency of operation within the site.


Safes and Vaults

Safes and vaults are a traditional way of securing assets. High-risk and critical infrastructure sites always house valuable assets, which could include documentation, money, hard assets and more, which all require to be safely stored and always protected. The range of safes and vaults offer ideal solutions. From fire-proof file document solutions, large cash-rated fire-proof and burglary proof safes, all the way through to rated vaults, there is a solution within the product offering to protect invaluable assets housed in these facilities.

GUNNEBO®

Security by Industry

Every critical infrastructure or high risk site has a different risk portfolio. What is deemed a critical threat to an airport, may be completely different to the critical threat to a metro or train station – even though both of these sites are within the transportation industry. This is why it is important to always complete a risk assessment and liaise with experts to develop and deploy effective security measures, designed to protect against the nominal threat.
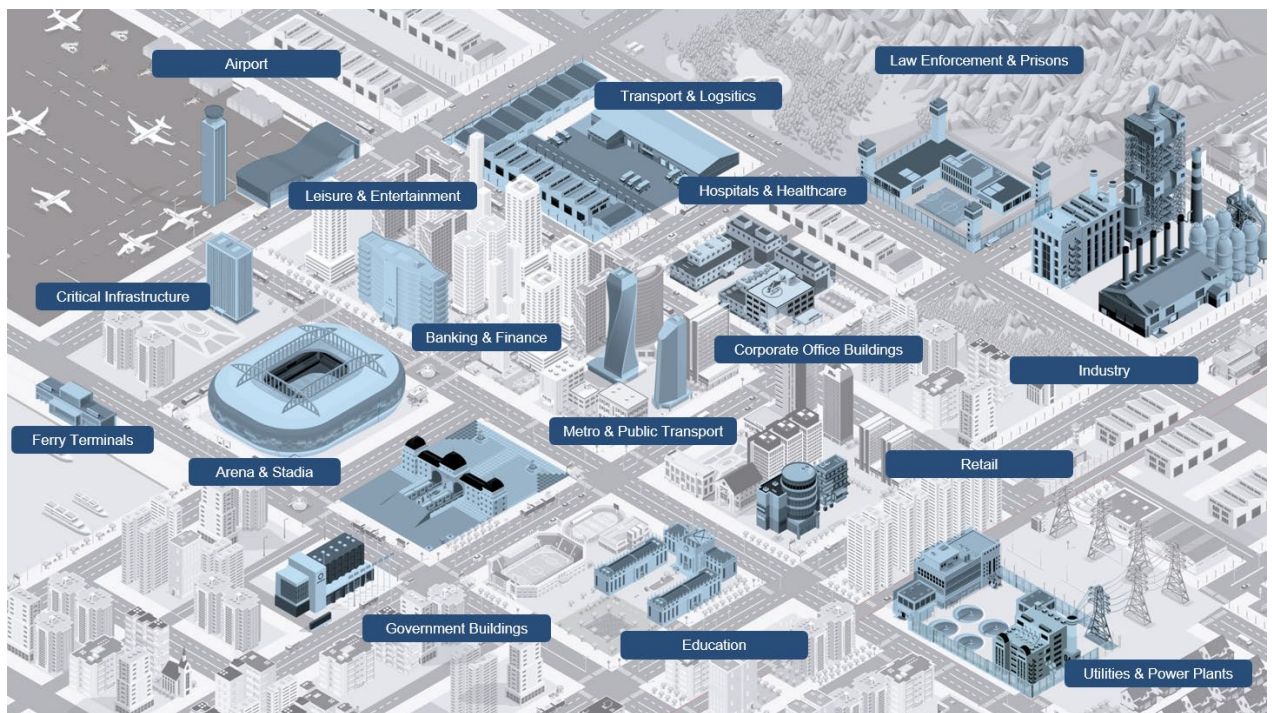
So how do you decide what the best solution is for your site?

Understanding the perceived threat and the threat level to your organisation is key. Knowing where there could be potential infiltration or attack upon a site or industry will allow security and risk teams to implement solutions that reduce the risk of security breaches.

For example, if we look at an airport and their security objectives are to ensure the safety of the passengers and staff within terminals, as well as the safety of the country. To achieve this, they must ensure that only passengers and approved staff can travel landside, to airside, and vice versa. It is important for airport security to prevent threats or potentially dangerous situations from arising or entering the country. This is why rigorous screening occurs when entering an airport's secured locations, and equally when departing from those secured locations.

Gunnebo have designed solutions which have been tailor made for the airport environment. These solutions provide airports with high level security, integrated with biometrics plus ticketing and passport scanning, elevating the level of protection and visibility throughout the entire airport process.

GUNNEBO®

Pre-Security Boarding Pass Check

## Increase capacity with self-service security

Gunnebo PreSec - Benefits

- Greatly reduced labour costs at pre-security
- Compatible with majority of biometric identification technologies
- Increased throughput
- Provision of valuable passenger data and statistics
- Platform for implementation of accurate queue management

Automated Self-Boarding

Enhance passenger experience and reduce boarding times
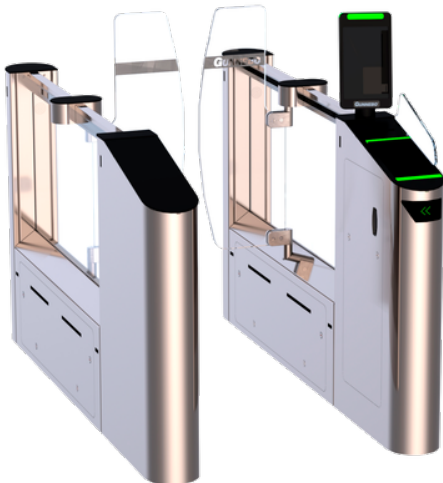
Gunnebo BoardSec - Benefits

- Huge saving costs in labour and avoidance of costly delays caused by boarding issues
- Flights can be closed earlier, shorter parkingbtime
- Shorter waiting time for passengers
- Relief of manual work from agent who has more time for exception handling
- Fast, convenient and secure ID Check with biometric identification (e.g. facial)

GUNNEBO®

Immigration and Border Control

Maximise your resources with efficient verification of passengers

Gunnebo ImmSec - Benefits

- Accelerates the immigration process
- Automates the entry process and collectionvof data
- Increases security with integrated biometrics technology and single passage detection
- Minimises queues and queuing time
- Disabled compliant
- Ready for single token hands-free passage with an optional facial recognition camera

---

Airside to Landside Anti-Return

Secure passenger flow from airside to landside

Gunnebo PasSec - Benefits

- Controls passenger movement from secure to non-secure areas and prevents passage in the wrong direction
- Improves security with advanced detection system
- Allows high throughput with no passenger interaction
- Disabled compliant
- Sophisticated sensor detects presence, direction of movement and left or thrown items

GUNNEBO®

Now if we look at metro and public transport, although still a public way for individuals to move around, metro and public transport focuses more on the everyday modes of transportation such as buses, metro and train, ferries and more. There is still a requirement to keep travellers and assets safe, however there are other security breaches that are a risk for these companies, such as fare evasion, and population density. As population increases, the demand for public transport grows, meaning that Governments and transportation companies must increase the security measures to align with protecting a substantial number of passengers without impeding on flow and accessibility.

Gunnebo have designed solutions which are built to protect areas of mass transit without affecting passenger mobility. With a range of options available dependent on the level of protection required, these solutions assist in the reduction of fare evasion whilst increasing overall security at mass transit locations.

Metro Tripod Turnstile

Effective Fare Collection

Benefits

- Classic design with a small footprint for indoor or outdoor use

- Photocall and IR sensors prevent unauthorized passage and fraud attempts

- Robust and durable with a stainless steel design

- Positive locking action for one passenger at a time

- Self-centring mechanism to ensure complete rotation into the home position

Metro Swing Gate MFL

Streamlined fare collection and validation

Benefits

- Automated entrance control for mass transit integrated to collect fares and validate tickets

- High passenger throughput with accurate prevention of fraudulent entry

- Alarm systems to activate when fraudulent entry is detected

- More than 40 different passage scenarios handled, including intrusion, tailgating, piggybacking, luggage carried, and more

GUNNEBO®

Metro Full Panel Gate

High security fare collection

Benefits

- Fast and smooth mechanism with sliding glass panels, allowing up to 60 passages per minute

- High performance fraud detection through sophisticated and proven algorithm

- More than 40 different passage scenarios handled, including intrusion, tailgating, piggybacking, luggage carried, and more

- Short or long cabinets available for flexibility in installation

- Guaranteed long-term investment protection and profitability

Metro Bi-Parting Gate

Tailgating prevention and high throughput
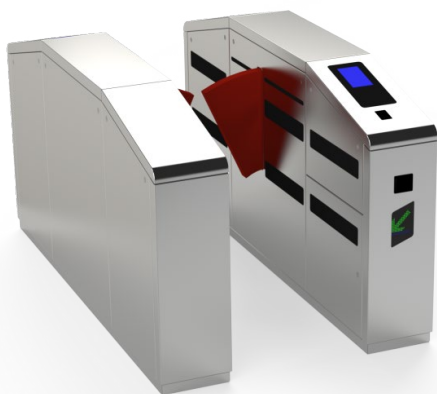
Benefits

- Robust design to withstand high volumes in peak hour

- Up to 60 passengers per minute throughput

- Unobtrusive design with retractable flaps that don't impede on passengers with special needs or luggage

- More than 40 different passage scenarios handled, including intrusion, tailgating, piggybacking, and more

GUNNEBO®

Results in Practice

Customer: NEXTDC

Security Requirement: NEXTDC required advanced protection to their critical infrastructure data centres. A solution that would provide a strong security posture throughout their facilities whilst remaining non-invasive to visitors, giving peace of mind that customer data is protected at every turn when housed in a NEXTDC facility. They wanted solutions which would set them apart from the competition and allow them to upkeep their brand promise of power, secure, connect.

The Solution:

Through learning about the customers needs, Gunnebo were able to propose a range of solutions which begin protection from the outer layer of the facility, all the way through to the data halls. At each stage of a NEXTDC facility, you are presented with a security layer, whether that be an airlock, a secure portal or biometric identification, and without correct authorization, you are unable to gain access. In addition, there are attack and bullet resistant windows, walling, doors and guardhouses throughout, providing an additional layer of security to the facilities should there be an attack.

In the early engagement phase, Gunnebo worked with the client to understand all requirements. We were able to head into the planning phase with a clear understanding of what was trying to be achieved and review all the key factors that needed to be considered for the project. This thoroughness allowed for a smooth deciding phase, as well as a simpler and faster deployment of security in each new facility. NEXTDC have a different range of products in each facility, specifically designed for that individual site.

GUNNEBO®

In Conclusion...

Threat levels are continually changing, with the world becoming a more automated and reliant on technology, it is important that we protect our physical assets that assist in the operation of our country. Utilizing modern technologies and equipment will allow high risk sites to stay protected against malicious individuals.

Safeguarding these sites to make certain they are protected against potential threats, attacks and breaches is paramount in future-proofing our country. Ensuring that malicious and hostile individuals are unable to gain access to our countries most valuable assets and systems will see Australia continue to excel in providing the goods and services our citizens require.

Understanding your business, your risk profile and what your need for security is will assist to implement the right security portfolio on a case-by-case basis. No two industries, organizations or sites are identical; therefore, the security approach shouldn't be either. Assessing the risks and knowing what you want to protect will allow experts such as Gunnebo to build you a bespoke solution to suit your exact needs.

CONTACT A PRODUCT EXPERT

GUNNEBO®

Protecting Australian Critical Infrastructure and High Risk Sites

The Gunnebo guide to implementing the ideal security posture for high risk locations.

GUNNEBO®