U.S.D.T.
U.S. DEFENSE TEAM

U.S. Defense Team Portfolio

U.S. Defense Team Portfolio Contents

Introduction

About U.S. Defense Team

U.S. Defense Team is a unique Homeland Security Solutions company established by experienced Ex-Military, Ex-Attaché Ministry of Defense for 6 Countries and High-Tech Technology experts. Based in Abu Dhabi and Dubai its mission is to provide best-of-breed homeland security systems, technologies and total, turn-key solutions to organizations that are facing the significant security challenges and threats existing today and are expected tomorrow.

U.S. Defense Team has a significant and proven operational track record in the development, launch and deployment of advanced software and hardware security, command & control, intelligence and protection systems. Our executive team, made up of experts across a diverse spectrum of disciplines, has a substantial and proven track record covering years of experience in military operations and high-tech systems.

TURN-KEY, BEST OF BREED

SECURITY SOLUTIONS. DELIVERED.

In addition to providing everything from a single product to a full turn-key solution, U.S. Defense Team and its team have been involved in providing our clients with advanced protection and security methodologies and highly effective and advanced training for security forces, based on the proven approaches which have been effectively tested in the field.

We are committed to our clients and on the basis of a long-term commitment, full discretion, deep respect and trust.

Solutions Approach

U.S. Defense Team is a leading turn-key solution provider of physical security, homeland security systems, safety and smart site management solutions. Security Professional Services are an integral part of U.S. Defense Team's holistic approach to security. Our services draw on the unique security knowledge developed from our experienced ex-military and high-tech technology experts. We have proven experience a range of projects including:

Solutions & Specialties:
- Airports & Seaports
- Borders
- Critical Assets
- Safe City
- Skyscrapers
- Hotels & Shopping Malls

Product Systems include:
- Perimeter Security Systems
- CCTV & IVA
- Access and Barrier Solutions
- Force Protection Solutions
- Personal Ballistic Protection
- Command and Control

Strategic Consulting

Whether you are looking for a broad strategic perspective or for detailed site analysis on security, our experts are ready to consult you on a wide range of security, safety, intelligence and counter-terrorism issues and practices. Our team of security experts has proven experience in consulting for large projects, organizations and countries.

Complex/Large-Scale Project Management

Our team is experienced in outlining, defining and drafting best of breed, turn-key security solutions that fit your needs. Our solutions are scalable, from simple product provision, to the full management from definition, through delivery and training of significant large scale and complex security projects.

Training Services

Our goal is to make sure that all your personnel are fully capable of executing their designated tasks. Whether it is the security guards that need to perform effectively during routine or counter-terrorism response units in emergency situations. Through our highly trained and veteran staff, we offer a range of training services to ensure that you have full control of all aspects of the security operations including:
- Training on implementation and operation of security projects
- Training for large projects, organizations and countries
- Training on counter-terrorism, with specific expertise on training special combat units

Overview of Solutions

Airports

Security for passengers in airports has always been a high priority and highly visible - with baggage scanners, passenger screening and scanners, dog sniffers, liquid policies and more. This, however, does not include another just as important security aspect of the airport - its full perimeter security surrounding the airport itself.

Securing the full perimeter of an airport, whether a big or small airport, should be as top of a priority as is its passenger and aircraft security. Typical projects for Airport security include a combination of:

- CCTV & IVA Camera systems
- Smart Sensor Fences
- On Wall Smart Sensors
- Barriers, Bollards and Gates
- Roadblocks and Tire Killer Spikes
- Access Control Management
- Command and Control System

Airport security projects can also include full integration of the various security products and platforms – whether it is existing physical security infrastructure, or are setting up new security infrastructure – through our Command and Control System. This would allow for a single and central management system for airport security personnel to monitor all aspects of the airport perimeter security and provide the quickest response time to any possible infiltration or penetration.

Seaports

Since the attacks of September 11th, there has been a heightened awareness of the vulnerability of attacks on all forms of transportation – including the awareness for the need for tightening port security. Such security risks widely range from maritime theft and crime, seizing or sinking of ships, and port facilities and ships vulnerable to terrorist attacks.

U.S. Defense Team provides leading tailor made solutions through its top of the line security products and systems. Typical projects Seaport security includes a combination of:

- CCTV & IVA Camera systems
- Smart Sensor Fences
- On Wall Smart Sensors
- Underwater Security Systems
- Barriers, Bollards and Gates
- Access Control Management
- Command and Control System

Seaport security projects can also include full integration of the various security products and platforms – whether it is existing physical security infrastructure, or are setting up new security infrastructure – through our Command and Control System. This would allow for a single and central management system for port security personnel to monitor all aspects of the airport perimeter security and provide the quickest response time to any possible infiltration or penetration

Critical Assets

Critical asset facilities face a range of security threats from local crime and theft, sabotage to terrorism - and any theft or damage to such facilities poses a serious risk to the public and cities nearby.

U.S. Defense Team provides comprehensive solutions for protecting critical infrastructure such as oil refineries, oil & gas pipelines, water plants, large factories, prisons and other sensitive facilities. Typical projects for include a combination of:

- CCTV & IVA Camera systems
- Smart Sensor Fences & Walls
- Barriers, Bollards and Gates
- Access Control Management
- Command & Control System

Critical infrastructure projects can also include full integration of the various security products and platforms – whether it is existing physical infrastructure, or are setting up new security infrastructure – through our Command and Control System. This would allow for a single and central management system for personnel to monitor all aspects of security and provide the quickest response time to any possible alerts, theft or infiltration.

Smart & Safe City

Our Safe City solutions addresses many aspects of urban security and operations by combining products sensors and integrating systems - whether you have your own existing physical security infrastructure, or are setting up new security infrastructure. It offers a single, unified and comprehensive Smart City solution that enables cost-effective city management and provides advanced analytics to identify and manage city resources, to operate your city in the new age.

- Reduce costs and resource consumption
- One tool that can receive and send commands to all the city systems
- Supports multiple type of sensors and protocols
- Engage with your city's residents through a dedicated app

Smart City integrates all City infrastructure systems and personnel into one unified system to offer real time response over logistics, security and safety operations.

Smart City analyzes the entire city's infrastructure & systems in order to help save costs, efficiently manage all resources and offer a decision support management tool.

Smart City leverages the mobile phone to engage with city's resident in real time, provides residents with access to all the city services and allows them to respond as a "human sensor" in case of city hazards and incidents.

Main features of the Smart City Solution include:

- Available as a Cloud based solution-low total cost of ownership, quick and simple installation & implementation
- Integrates all existing city systems, meters, building management, controllers, cameras & technologies via common protocols
- Real time view of city resources from one location
- Access the system via Smartphone and tablet
- Immediate response to event –send tasks to municipality and technical staffs
- fully customizable - meets all city's requirements
- Certified ISO 27001 - Strict information security requirements and cyber security protection, passed hacking attempts by government agency
- Available in multiple languages

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U.S. DEFENSE TEAM

Skyscrapers

Like many other building, skyscrapers have its standard security infrastructure: CCTV Cameras, Access control, barriers and more. But when dealing with security of skyscrapers, the most critical success factor for the security of skyscrapers is an effective Command & Control system that can:

- Integrate with all the security components of the building
- Synch in real-time between the security forces on the ground and emergency response
- team Safe and orderly evacuation of mass amounts of people

The command and control software and apps allows information/cyber, safety, logistics security officers manage manpower, procedures and technology in day-to-day routine and in emergencies. It interfaces with all organization systems and links all end users through a mobile app. It allows for efficient management of technological systems and of information security, safety, logistics and security teams of the organization in one database. This software is designed for installation in secured sites and facilities, such as smart cities, banks, offices, factories, hotels, hospitals, shopping malls, airports and many more.

U.S. Defense Team provides a complete and comprehensive security solution of Skyscrapers, including physical security products and systems as well as the integrated Command and Control system.

Hotels & Shopping Malls

Security solutions are required in every walk of life, and the retail and hospitality sectors are no different.

The industries of retail and leisure continue to grow in the region, with hotels and shopping malls getting bigger and better, continually expanding. The security and protection of visitors is of utmost priority to retailers and mall developers.

U.S. Defense Team has extensive experience in supplying the leading tailor made solutions for hotels and shopping malls through its top of the line security products and systems. Typical projects for the retail and hospitality industries include a combination of:

- Barriers & Access Entry, including arm barriers, bollards, gates and more
- Smart Sensors Fences & Walls
- CCTV & IVA, including facial recognition and LPR (license plate recognition)
- Command & Control System– Synch emergency services with the on the ground security staff

Projects can also include full integration of the various security products and platforms – whether it be existing security physical infrastructure, or are setting up new security infrastructure – all managed through our Command and Control System. This would allow for a single and central management system for on the ground security personnel to monitor all aspects of security, synch with any needed emergency response teams and provide the quickest response time to any possible alerts, theft or attack.

Overview of Products

Command and Control

The Next Generation of Command and Control (CC)

Our system is a new and innovative Physical Security Information Management system (PSIM), which combines comprehensive security management software with a robust smart phone application, enabling organizations to effectively manage all their security, safety and logistical requirements from one place.

Our system is the one stop shop, all-in-one cloud based PSIM including:

- All in one PSIM combining security, safety & logistics
- The only Cloud-enabled complete solution
- Full control, 24/7, anytime, anywhere
- Verified and Secure
- Dedicated mobile app
- Future-proof solution

What is the CC software?

The command and control software and apps allows information/cyber, safety, logistics security officers manage manpower, procedures and technology in day-to-day routine and in emergencies.

It interfaces with all organization systems and links all end users through a mobile app. This CC software was in development for three years, a company that employs the very best specialists in information and physical security.

The software includes the majority of software and apps for organizations currently sold or developed separately. This was done to improve, manage and integrate performance parameters of organizational systems, to make redundant some of the integrations required of organizations, and thus reduce costs to clients.

U.S.D.T.
U.S. DEFENSE TEAM

It allows for efficient management of technological systems and of information security, safety, logistics and security teams of the organization in one database. This software is designed for installation in secured sites and facilities, such as smart cities, banks, offices, factories, hotels, hospitals, shopping malls, airports and many more.

Two Main Applications of the Command and Control:
- A systems manager app installed on the company server or Cloud (per client specifications), managed in a CC center and/or personal tablet of security officer.
- A user app (for security guards/employees) installed on personal Smartphone's.

The range of apps and systems included:
- An open-design command and control system that allows for the integration of fire, alarm, closed circuit TV, and entrance monitoring systems
- A Smartphone-based independent entrance monitoring system (for doors and gates)
- An organizational event log for automatic report generation that allows for data triangulation
- A SIM (security information system) for cyber-attack alerts
- A mobile-based internal communication system
- Encrypted message system for internal communications
- Tracking system of transport routes, patrols and/or company fleet
- Announcement system, text message and voicemail system
- Global distress signaling system for employees operated by button, timer and/or motion sensor
- Organizational competence management system (equipment and personnel)
- Organizational inventory management system
- Report generating system that computerizes all organizational reports
- Visitor/supplier management system
- Task management system
- Work hours and wages management system
- Structure management – logistics and maintenance
- Structure specs profile and protocol management system
- Emergency protocol management system
- Weaponry inventory management system

The Advantages of the Command & Control

The software can interface with all security systems within an organization, including alarms, fraud prevention, alerts of cyber-attacks, safety, entrance monitoring, and closed circuit cameras. It may also be activated through encrypted communications on Cloud without any need for a designated server, thereby sparing companies unnecessary expenditures on expensive accessory equipment for the system.

One Stop Solution

With the CC software solution – it's a one-stop fully integrated solution that:
- Integrates with all security tools and personnel into one unified command and control system
- allows simple management of the entire security operations from one screen
- Leverages the users' mobile phone for real time security management and response

One System for All

Whether or not integrated with our range of security solutions and products and/or your own existing system – the Command and Control system can be implemented easily into existing security infrastructures and consolidate your command into one system.

This solution is relevant to customers in a wide range of sectors including:
- Government Ministries
- Safe City & Smart City
- Critical Infrastructure, Port and Transportation
- Emergency Forces & First Responders
- Law Enforcement and Security Agencies
- Hotels & Building Management
- Commercial Facilities& Factories
- Insurance and Healthcare companies

Perimeter Security Systems

Outdoor perimeter security technologies has been developing, manufacturing and marketing the world's most advanced and complete line of integrated Outdoor perimeter security Systems, Video surveillance, Video Analytic, Access Control for military, industrial and commercial applications on a worldwide basis.

Today Outdoor perimeter security technologies installed worldwide, protecting power stations, prisons, oil refineries, international borders, government facilities, airports, and many other civil and military facilities.

Based on high skilled engineers, technicians, programmers and R&D personal, the company is constantly developing new generations for the existing perimeter intrusion detection products and new detection technologies.

Fence Outdoor Perimeter
Security Systems

Wall Outdoor Perimeter
Security Systems

Underground Security systems

Underwater Security Systems

Solar Panels Security Systems

Fence Outdoor Perimeter Security Systems

Supersensor – Fence Mounted Sensor Cable

The Supersensor Fence Mounted Sensor Cable is advanced concept in Perimeter Security Systems, based on a unique Sensor Cable that can be mounted on any type of perimeter barrier. Any mechanical stress induced to the Supersensor Fence Mounted Sensor Cable is converted

to electronic signals which processed by powerful microprocessor located in the Fence Mounted Sensor Cable Field Controller.

Supersensor - Fence Mounted Sensor Cable

Supersensor Perimeter Security Systems benefits

- • Super Probability Of Detection
- • Very low false alarm rate
- • Cost – effective operation
- • Easy to install on any mesh fence, concertina, barbed wire
- • Maintenance free Perimeter Security Systems
- • Perfect solution to any perimeter size protection

Electronic Taut Wire – Perimeter Security Systems

The Supersensor is Unique high security Electronic Taut Wire Fence system based on installation of Sensor Cable on a stretched barbed wires or simple steel starched wires without any moving parts or Electro mechanical sensor that need high maintenance due to changes of the infrastructure. Any mechanical stress induced to

the Supersensor Fence Mounted Sensor Cable is converted to electronic signals which processed by powerful microprocessor located in the Field Controller.

The cost for special infrastructure, which it is essential for the electro mechanical taut wire, will be very low for the Electronic Taut Wire Fence system based on purely electronic parts.

The electronic Taut Wire fence barrier providing high detection level with very low false and nuisance alarms.

Electronic Taut Wire - Perimeter Security Systems

Supersensor Electronic Taut Wire Fence Benefits

- • High security solution
- • Very low false alarm rate
- • Cost – effective operation
- • Easy to install on any Taut Wire fence, concertina, barbed wire.
- • Maintenance free
- • Perfect security solution to any perimeter with existing Taut wire fence
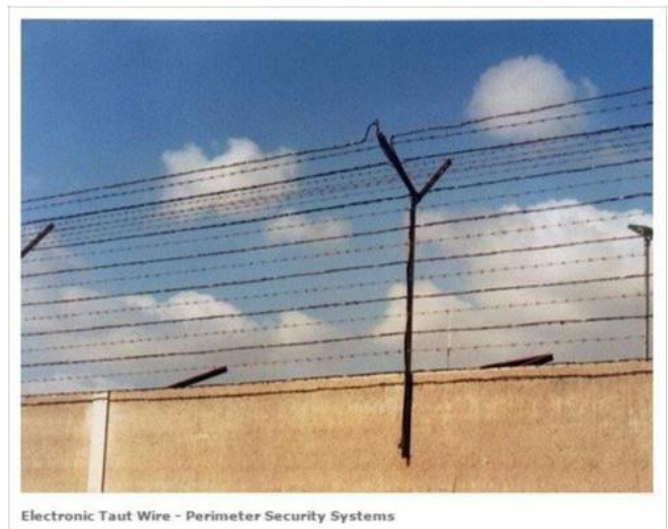
Wall Outdoor Perimeter Security Systems

Concealed On Wall

The Concealed On Wall Intrusion Detection made by Installation of Poles Detection or Multi-loop Sensor Cable on top of the wall will provide a detection in volume of 1.5m' all around the top of the wall. The detection is completely passive based on the principle of Magnetic Anomaly Detection (MAD).

The Concealed On Wall Intrusion Detection Poles system can be installed on the side of the wall, bottom of a wall or even embedded inside the wall as totally concealed.

All global or local disturbances are filters out by advance adaptive algorithms

Concealed On Wall Intrusion Detection Benefits

- High security Wall Intrusion Detection
- Fully concealed & passive
- Very low false alarm rate
- Cost – effective operation
- Easy to install Wall Intrusion Detection
- Maintenance free – Invisible Security Fence
- Distinguish between actual intruders and stray animals, birds, a strong wind, heavy rain, fog or snow

Concealed On Wall

Climb Detection – Smart Fences System

A Supersensor Sensor Cable installed on barbed wires stretched on "v" Shape construction on top of a wall or on any other type of barrier as a Climbing detection system with or without concertina as a delay barrier.

The Supersensor Climb Detection based on Sensor Cable provides maximum flexibility and can be deployed on almost any type of perimeter barrier anti-climbing element such as:

Climb Detection - Smart Fences

- Barbed or Razor wire Coil.
- Taut Wire (Barbed wire, Razor wire or steel wire).
- Mash fence.
- Welded fence.

Supersensor Climb Detection Benefits

- Super sensitive
- Very low false alarm rate
- Cost – effective operation
- Easy to installation
- Maintenance free
- Perfect perimeter security solution on existing decorative fence or wall Climb Detection

Underground security systems

UPDS Buried Security System

Fully concealed magnetic outdoor Perimeter Security System

The UPDS is a Magnetic Buried Security System – cable sensor, totally concealed and operates effectively under any type of surface such as: All type of ground, concrete, asphalt roads, runways, vegetation, between trees, mountain, terrain and even under water, snow and ice.

The UPDS Magnetic Buried Security System can distinguish between actual intruders and stray animals, fish, birds, a floating leaf, bits of paper or vegetation, all of which generally trigger other intrusion detection systems

Buried Security System

UPDS Magnetic Buried Security System Benefits
- Very low false alarm rate
- Intrusion location & direction
- Fully concealed & passive
- Simple to install
- Low maintenance costs
- Distinguish between actual intruders and stray animals, birds, a strong wind, heavy rain, fog, snow, a floating leaf or bits of paper

Supersensor Net – Underground

Underground perimeter security system Net Buried Perimeter Security System

The Supersensor Net pressure perimeter security system can function as standalone perimeter security system or as an integrated with other perimeter security technologies. For example, it can be a supplementary system to electronic detection fences by installing it in parallel. It can function as an outer ring concealed early warning system, or as an inner ring to detect any attempt of the intruder penetrate by bridging, jumping above the fence or by diggings a path under the fence.

Supersensor Net Perimeter Security System Benefits
- High security solution
- Very low false alarm rate
- Simple to install
- Low maintenance costs
- Perfect solution for protection against bridging either jump over the fence or digging under the fence

Sensor Net - Underground

Underwater Security Systems

Maritime Security Underwater Fence

Maritime Security Underwater Fence – Cut & Pass through Detections

The Maritime Security Underwater Net: A unique and field proven sensor cable net designed to provide physical protection and Cut & Pass through Detections above or under water. It is specially designed to survive for many years in the harsh marine environment. Applicable for on/offshore oil rigs, power stations, harbor entrances, oil platform and maritime security etc.

The Maritime Security Underwater Net is held rigidly in place between very strong stainless steel sections. The core of the net includes a supersensor cable that provides detection in the event of a diver trying to cut through the net.

Marinesensor – Maritime Security Underwater Net Benefits

- No false alarm
- Designed for medium- to high security risk installations
- Any attempt to cut, lift, climb over, crawl under or pass through the Sensor Cable-Net will trigger an Alarm
- Low maintenance costs
- Perfect perimeter security solution for: Naval Bases, Power Stations, Harbors and Ports, Offshore Oil Rigs, Underwater pipelines and Cables and Aquaculture and Beaches

Maritime Security Underwater Fence

The Maritime Security Underwater Net is detected and indicates to the Command & Control the exact location of enemy attack.

Marine Intrusion Detection Systems

The Perimeter Diver Detection System is use to protect a water pass which its depth is up to 10m'. Installation of Sensor Cable loops will detect an underwater divers and small boats crossing the detection line where the sensor loop are installed.

Marine Intrusion Detection Systems

The Perimeter Diver Detection System is based on the principle of Magnetic Anomaly Detection (MAD). Assures very effective early warning under water intrusion attempt by an intruder who carries ferromagnetic objects.

Perimeter Diver Detection System Benefits

- Very low false alarm rate
- Intrusion location & direction
- Fully concealed & passive
- Low maintenance costs
- Detect on Shallow water & Divers dive near the canal wall Perfect perimeter security solution in places that the diver detection sonar systems are limited

Solar Panels Security Systems

Photovoltaic Solar Panel Alarm

Anti-Theft Solar Panel Alarm Devices - Do-It-Yourself PV Anti-Theft Device (Solar Panel Alarm)

The photovoltaic Solar panel alarm anti-theft device produced by G-Max Security is a do-it-yourself (DIY) set up sensor cable via dry contact that can be linked to a typical residential security system. The PV Solar panel alarm anti-theft Super Sensor is a copper sensor cable base anti-theft system that gives protection against removal of solar and photo-voltaic panels.

The photovoltaic Solar panel alarm anti-theft system protects the panels by joining them together using a low cost sensor cable. Removal of a panel causes an interruption in the sensor cable and consequently generates an alarm. The PV Solar panel alarm anti-theft super sensor is easy-to-install and easy-to-maintain system thanks to the copper sensor cable that needs only few minutes to be installed on the panels, and there's no need to drill the panels.

Photovoltaic Solar Panel Alarm Anti-Theft Systems Benefits
- Super Probability Of Detection
- Very low false alarm rate
- Cost – effective operation
- Easy to install on any photovoltaic panels (PV)
- Maintenance free Solar panel alarm anti-theft Systems
- Perfect solution to any perimeter size protection
- It has a long life (more than 20 years)
- It can be interfaced with any alarm communication systems
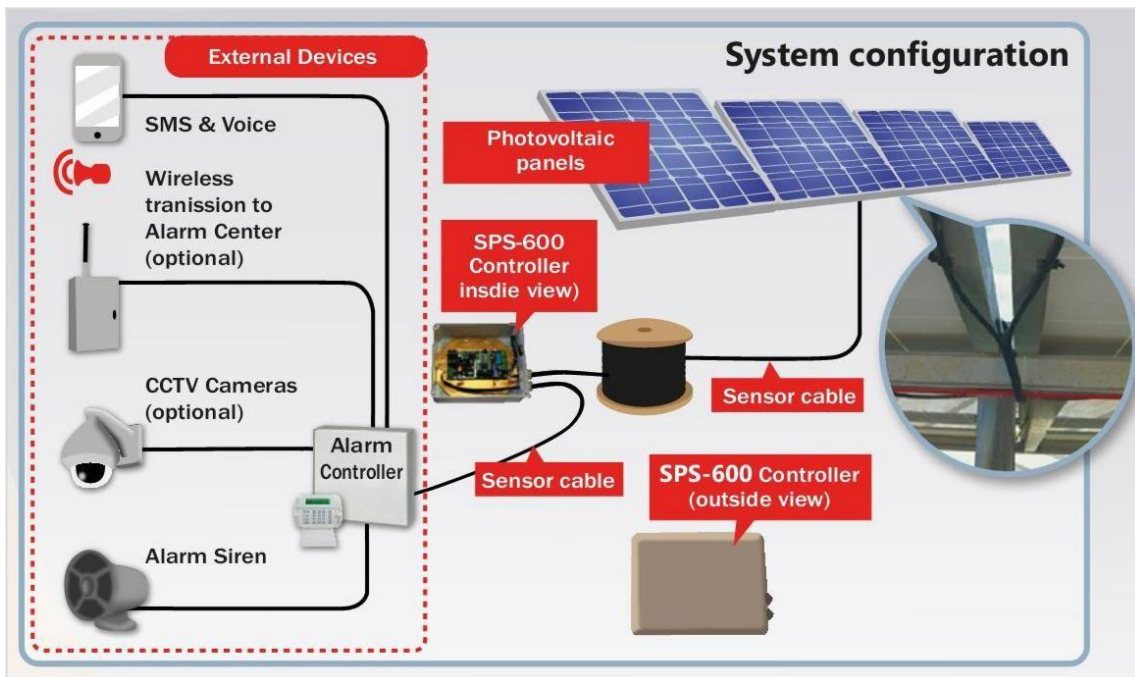
CCTV Systems & Video Analytic

CCTV

A central tool for controlling and obtaining real time information critical for security and safety management are security cameras. Cameras are run and monitored 24/7 through call centers, control rooms and analytical tool management systems helping to maintain order and law in the city and provide critical information in the case of any crime, threat or attack. There are various types of cameras, each with its unique feature including:

- PTZ - Camera controlled by the operator and automatically focuses on an unusual event according to analytics, pressing the panic button, noise and so on.
- Fixed Camera - Camera focuses on fixed area such as a main axis and a cause permanent analytics can be run.
- License Plate and Face Recognition - Camera recognition software enabled different action rule triggers based on recognition of figures and action, most especially when listed as suspicious in the database.
- Hidden Camera - installed in places where there is a need to observe in disguise.

Video Analytics - LPR & Face Recognition

In locations where there is a large number of sensor management, the capacities of multi-skilled agents are limited – human and manual analysis does not allow for rapid response to an unusual event. Therefore, analytic tools and software trigger meaningful and attention worthy events based on any deviation according to a built-in analytics.

Examples of events triggered by factors in analytics:
- Identify entries and exits
- Suspicious objects
- Driving in the wrong direction
- Suspicious vehicle ID No.
- Tracking of vehicles moving quickly or suspiciously
- Parking Control
- Excessive noise
- Face recognition

Barrier & Access Entry Solutions

Background

For more than 30 years our partner has been providing high security barrier solutions to public and private clients and facilities worldwide. Designing, testing and manufacturing a range of perimeter security products, we have become known for its ability to plan innovative protection solutions incorporating multiple elements and security layers.

Specializing in Anti-ramming bollards and gates, and advanced access control that protect facility perimeters worldwide, our partners offer a line of products suitable for both military and civilian needs. The company has a professional and well-experienced team putting a special emphasis on combining strength with esthetics. The products are customized for conditions that are strong, durable and corrosion resistant which blend with the surroundings. The team is regularly called upon to design complex interlock entrances incorporating undercar scanners, gates, and bollards, fail-safe mechanisms to meet anti-terror, anti-ballistic and anti-blast requirements.

PAS 68 Certifications - Although all our products have been shown to live up to their anti-ramming and anti-terror

| Arm Barriers | Bollards | Gates |
| Roadblocks | Tire Killer Spikes | Turnstiles |

specifications, we strive to certify our products to meet the BSI PAS 68 / K12 standard.

Arm Barriers

High Security Arm Barriers

Designed to completely close an entrance line to a facility and bring vehicles to a halt, drop arm barriers are the barriers of choice for military, government and commercial installations around the world. These barriers, with their unique cable systems and hydraulic or pneumatic operation protect government and corporate compounds and border crossings providing high-security to any location where an anti-ramming or anti-theft solution is required.

Installation configurations suit all sites and options include surface-mounting for temporary or mobile use, deep side foundations or shallow cross-road foundations.

Light Arm Barriers

Industry leading high-volume, low maintenance administrative arm barriers. If synchronized with bollards or spikes, the combination becomes an effective anti-ramming solution and is used extensively to protected entrances worldwide.

Specifically engineered for high traffic flows and low maintenance, the Light arm barriers sets new standards in reliability. With its elegant and compact design, the Light arm barriers can be installed in both manned and unmanned locations in remote and urban facilities. With a range of LED light solutions, these barriers are also suitable for locations where high visibility is desirable as a deterrent or to mark an entrance.

Suitable for border crossings, car parks and entrances to compounds, the Light arm barriers can be integrated into a range of access control and intruder detection systems to provide a comprehensive perimeter security solution.

Bollards

Our bollards are customized for conditions that are strong, durable and corrosion resistant which blend with the surroundings – and include a wide range of types of bollards depending on the needs, including:

High Security Bollards

Operated hydraulically or pneumatically, the high security automatic bollards offer the highest standard of anti-ramming and security protection. Taking as little as 4 seconds to reach the fully raised position, these bollards can be used in the most demanding locations where the highest level of security is required.

High Security Bollards

These bollards were tested at TRL, an authorized UK test centre, and meet the British Standards Institute PAS 68 standard for security bollards, stopping a 7.5 ton truck travelling at 80 km/hr within a few meters. Typically combined with light arm barriers and gates, these bollards provide maximum deterrence and safety. With a hard-wearing finish, these bollards are used extensively to protect sensitive government and military locations as well as civilian compounds.

Automatic Anti-Ramming Bollards

Operated either pneumatically or hydraulically, the automatic anti-ramming series offers the highest standard of anti-ramming and security protection. Taking as little as 1.5 seconds to reach the fully raised position, these bollards can be used in the most demanding locations where high-volume traffic flows must be managed.

Automatic Anti-Ramming Bollards

These bollards are often combined with light arm barriers to provide maximum deterrence and safety. With a hard-wearing stainless steel finish, the bollards are engineered to meet the DOS and PAS standards for anti-ramming bollards and are used extensively to protect sensitive government and military locations as well as civilian compounds.

Semi-Automatic Bollards

Semi-Automatic Bollards

Designed with simplicity of operation in mind, the semi-automatic bollards contain a gas-filled piston which automatically raises the bollard and locks it into position when the key is inserted. To lower the bollard, the key is inserted to release the lock and then steady pressure is applied to the top. When the bollard is fully lowered, it automatically locks in position.

Keys for the semi-automatic series are cut in such a way as to ensure that each is unique in order to thwart attempts at forcing the bollards closed. The piston is engineered to the highest standards and can easily be removed for maintenance. The unit is rated to support 25 tons of pressure from vehicle wheels.

Fixed Bollards

Fixed bollards are primarily categorized as either decorative or security. Decorative bollards offer deterrence and will prevent vehicles from accidentally breaching a perimeter line, however security bollards are necessary wherever anti-ramming protection is required.

Fixed Bollards

The decorative and designed, cast-iron and stainless steel bollards require a foundation of only 15 - 25 cm. Bollards manufactured from galvanized steel, can optionally be fitted with a band of LED lights.

Removable Bollards

Convenient and simple to operate, these bollards provide perimeter protection with the ability to completely remove the bollard for access to facilities or entrance ways. These bollards are ideal for areas where access is infrequent and the investment in an automatic or semi-automatic bollard cannot be justified.

This bollard is ideal for access roads for emergency services where only occasional access is required. Additional applications include access roads to parks and public areas. The bollards are offered as both decorative (cast iron/steel) and high-security versions (steel).


Removable Bollards


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Gates

Anti-Blast Gates

Anti-blast gates and doors which incorporate either a sliding or swing mechanism are constructed from armor plated steel panels. Due to the sensitive location of many of these doors, they are often remote controlled and include a host of detection and monitoring devices to ensure that the doorway and any personnel in the vicinity remain safe.

All of the anti-ballistic and anti-blast gates and doors are custom designed according to customer requirements and the threat levels that they expect to face. Weighing up to 12 tons, these gates are up to 6 meters high and 6 meters wide and are commonly installed at border crossings, prisons and other high security compounds
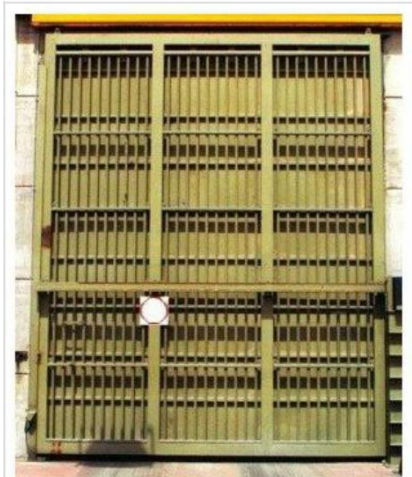
Anti-blast Gate
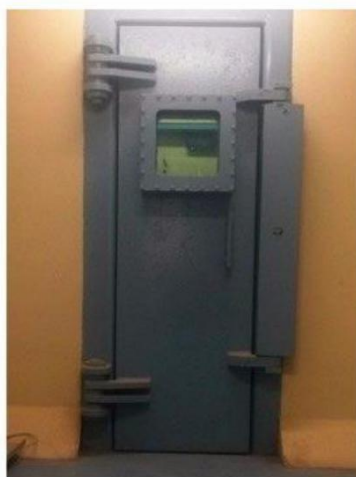
Anti-blast Gate

Anti-blast Gate

Cantilever Gates

Engineered to meet the extreme demands of large openings, the heavy duty cantilever gates have been supplied with spans of up to 30 meters to close 60 m wide border crossings. The gates move over steel roller bearings fitted on the carrying frame, which allows the wing to hover at as little as 10cm above the ground and move across sloping or uneven surfaces without the need for a track.

Suitable for large openings to compounds, government or military installations or border crossings, the cantilever gates are custom built to meet all local topographical and environmental constraints.

Cantilever Gates
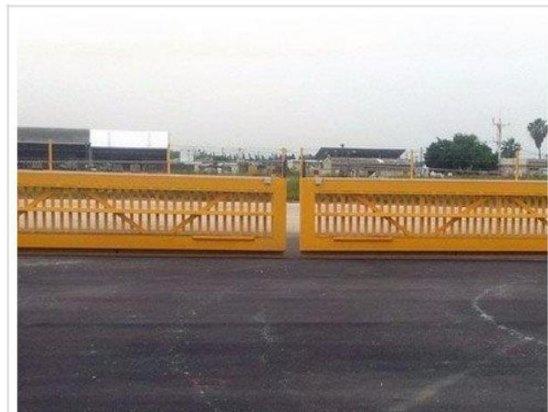
Cantilever Gates

Swing Gates

A range of gates for private and commercial installations are available where protection and privacy are required. The swing gates are ideal for narrow openings where there is no room for gate wings to slide laterally.

Safety features include two pairs of photo electric sensors to halt movement if a vehicle or person passes during operation, and a clutch for neutralizing or reversing the motor in the event of a collision with a person, vehicle or any other object. The gate can also be fitted with a range of additional safety features including touch sensitive edges, lights and sirens.

Swing Gates

Sliding Gates

Sliding Gates

Sliding gates move along tracks fitted in the ground ensuring reliable and smooth opening and providing additional strength and support. Sliding gates are custom built to meet local topographical and environmental constraints.

Safety features include two pairs of photo electric sensors to halt movement if a vehicle or person passes during operation, and a clutch for neutralizing or reversing the motor in the event of a collision with a person, vehicle or any other object. The gate can also be fitted with a range of additional safety featrues including touch sensitive edges, lights and sirens.
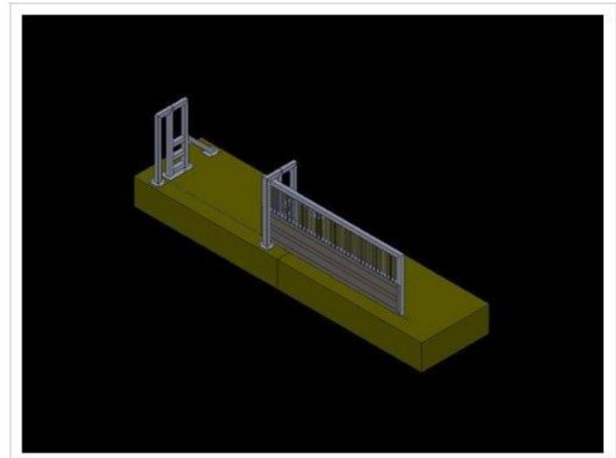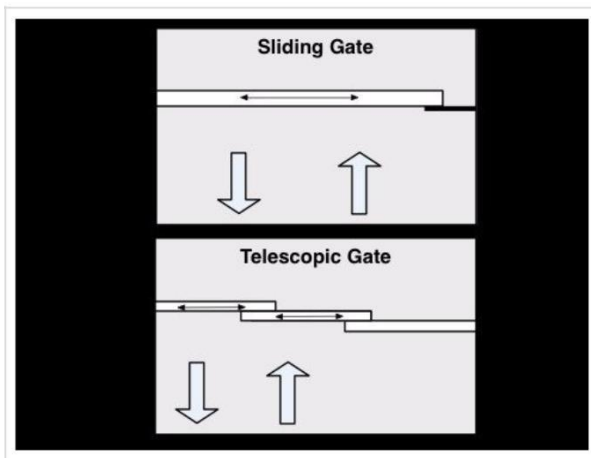
Roadblocks

Wedge roadblocks are the anti-ramming solution of choice for the highest security installations where full width lane protection is required. With their quick deployment and ability to bring a vehicle to a complete halt, these roadblocks are engineered to meet the most demanding security standards. These roadblocks are suitable for the protection of sensitive government and military locations and of entrance ways to key infrastructure compounds.

With a shallow foundation depth of 500mm and an efficient hydraulic mechanism, the hydraulic roadblock is simple to install and operate and requires minimal maintenance. The roadblock can be activated using a range of access control solutions and can be fully integrated into perimeter security systems.

Roadblocks

The roadblock model with a foundation depth of 1800mm provides even greater protection with a deeper foundation. The surface mounted roadblock is a unit requiring no foundations.

All our roadblocks offer:
- Highest protection level
- Fast operation
- Reliability
- Low maintenance

As well as the standard widths that we offer, custom units can be manufactured according to your specifications and the unique needs of the roadway to be protected.

ATG Access LW3 Road Blocker
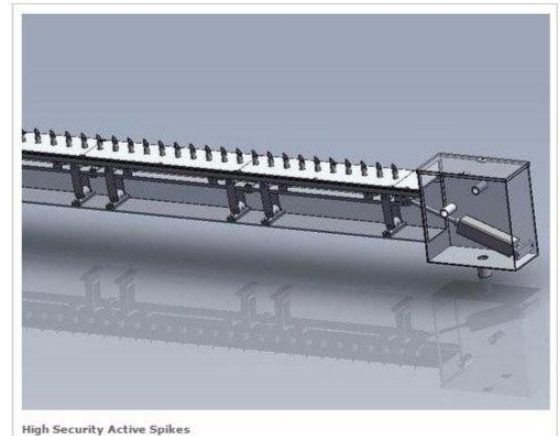
Tire Killer Spikes

High Security - Active 2-Way

The unique and innovative fast-response tire killer spike system was developed with the specific aim of bringing a car to a halt without harming passengers. Designed to rip tires apart and even withstand the latest generation of run-flat tires, these high security active spikes have been proven in the field as a particularly effective solution for border crossings and locations where vehicles pass at high speed.

Pneumatically operated and typically synchronized with a light arm barrier, the spike system comprises a set of hollow spikes which cross the entire width of the lane. When the barrier is down, the spikes are locked in the raised position and when the barrier is raised, the spikes are lowered into the ground allowing cars to pass over.

The hollow spikes have been engineered to ensure that a vehicle will be disabled irrespective of the approach direction. The height and width of the spikes have been specifically designed to rip apart both small private vehicle tires and large commercial vehicle tires. Even run-flat tires which use either the solid wall or wheel band method, are similarly disabled by this system which is particularly ruthless in its ability to shred a tire and damage the wheel.

Suitable for all weather conditions, the spike system incorporates a self-cleaning mechanism and drainage.

High Security Active Spikes

Active 2-Way Spikes
Fast deployment, reliable operation and equally effective against small cars or large trucks

U.S.D.T.
U.S. DEFENSE TEAM

Passive 1-Way Spike System

For lower security applications, surface mounted passive 1-way spikes can be installed which incorporate spring loaded spikes that are depressed and lowered by the movement and weight of the car as it passes in the correct direction. Any attempt to pass over the spikes in the wrong direction will result in multiple tire punctures. The spikes can incorporate an optional screw mechanism to allow them to be manually locked in the down position to temporarily enable vehicles to pass in the wrong direction.

These spikes are cost effective way of securing exit lanes where the complexity and extra investment in gates or barriers cannot be justified. This barrier is often used at the exit to parking lots, factories, malls and other areas of heavy traffic. It is particularly effective where high rates of exit traffic are found since it has a minimal effect on traffic flows.

Offered in both a regular version for cars and a heavy duty version for use where heavy vehicles form most of the traffic, the spikes are highly effective and simple to install and maintain.

One model is a spring loaded one-way model. Another model offers an option to lock the spikes in the down position thereby temporarily allowing traffic to pass both ways over the spikes.

Passive 1-way Spikes
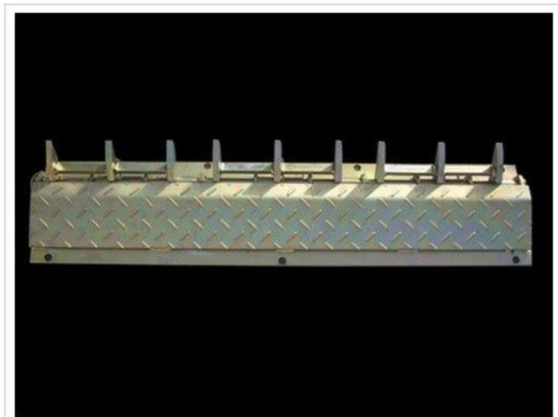
Passive 1-way Spikes

Turnstiles

Half-height Tripod Turnstiles

Tripod turnstiles are designed to provide access control to secure areas. Electronically programmable, these turnstiles will ensure the smooth flow of people while maintaining control and monitoring the people who pass through.

These space efficient turnstile barriers can manage high traffic and can be electrically or manually operated. Integrating with any access control system, they can be operated by magnetic or proximity card readers, biometric readers, buttons or tokens. The unique drop-arm feature provides a fail-safe safety solution in case of an emergency or power failure, providing fast evacuation in the event of an emergency. As an additional security feature, there is also an option to lock the arms in the event of an emergency.

Tripod Turnstiles

The turnstile has bi-directional control, allowing optimum control of flows (according to rush hour or peak times). The carousel has outstanding modern design, and is manufactured to the highest standards ensuring reliability and years of worry free use.

Full height security turnstile

Full height turnstiles are designed to control or prevent access by people to secure areas. Either electronically programmable or manual, these turnstiles will ensure the smooth flow of people while maintaining control of who passes through.

The full-height turnstiles are designed to fully enclose an opening to a secure area yet ensure an efficient and safe flow of people. The turnstiles offer bi-directional control, which allows flexibility in managing the flow of people and multiple concurrent passages, while maintaining the highest level of safety and security.

The turnstiles have an outstanding modern design and are manufactured to meet the highest standards, ensuring years of reliable operation even in the most demanding installations with very high capacity. The turnstiles have also been designed to withstand all weather and are suitable to environments with extreme temperatures, high salinity (close to the sea) or high humidity. They are available in an electronic or manual version.

Turnstiles - Full Height
Full height manual or automatic turnstiles for safety, security and access control

Access Control

We offer a selection of the most advanced systems for access control. Any of our hydraulically, electrically or pneumatically operated bollards, gates, barriers or spikes can be controlled by these access control methods most of which can in turn be integrated with ease into other enterprise systems.

From simple push button activation to advanced biometric control the system offers an access control system to meet every security level and budget.

License Plate Recognition (LPR)

License Plate Recognition (LPR) systems detect and read vehicle license plates for traffic enforcement, toll roads, border control, security, access control, parking systems, and many other applications.

Our company offers a sophisticated vision-based License Plate Recognition system that identifies number plates on stationary or slowly moving vehicles approaching a barrier or gate.

The combined camera/illumination unit compares the recognition result to an authorization list and opens the gate if the vehicle is authorized. Authorized vehicle numbers are stored on the unit's local database. Users can change the authorization list, as well as other parameters, using a special web server application. The system in its typical configuration will recognize a license plate in less than 0.5 seconds and the detection range is 4.0 -to 7.0 meters with a standard lens. Multiple cameras can monitor a single lane for increased security and reliability.

With its ability to operate continuously during the day and night, including adverse weather conditions, the LPR solution can be run as a standalone system or integrated into an enterprise IT environment for full control and tracking of vehicle movement.

Biometric

For world class security, a biometric solution ensures that only approved people enter the facility. Our fingerprint identification system for indoor physical access control incorporates high-speed one-to-many matching, ensuring an unparalleled level of security and user-friendliness

- Encryption at the sensor level
- Innovative live sensing security features
- Sensor unit includes a proximity card reader
- Robust, suitable for diverse stand-alone, networked and integrated applications
- Wireless and wired solutions

The reader is not sensitive to extreme temperatures or direct sunlight on the sensor and information is stored only on the Biometric Processing Engine, which is installed at a protected location, separately from the sensor. To prevent misuse and protect user privacy, encrypted biometric templates cannot be converted back into the original fingerprint image.

Cellular Phone

This simple but reliable and effective system allows gates or barriers to be activated by using cellular phones.

In order to open the gate, the cellular phone number of the caller must be pre-registered in the system. Phone calls are free since the system does not answer the call and use air time; rather it uses the Caller ID of the calling phone which it checks against a predefined list.

A PC or phone based management console allows access to be defined on an hourly or daily basis and one-time visitors can be granted access by registering their phone details and expected arrival time/date in advance. The system can also be programmed using SMS text messages.

The system can store over 5000 phone numbers and is suitable for all types of installations including car parks, closed residential communities, private homes and commercial compounds. Cellular phone activation uses the GSM phone system and phones must have Caller ID enabled in order to activate the gates.

Contact / Non-Contact Control Systems

We offer a wide range of contact and non-contact control systems including:

- Remote Control
- Magnetic Card / Proximity Card
- PIN Code Keypad
- Operator Panel

Remote Control   **Operator Panel**   **PIN Code Keypad**

Additional Safety Products

We offer a wide range of accessories to complement its barriers, gates and access control systems. Some are off the shelf products whilst others are custom made according to the clients' needs. In all cases, we will recommend safety accessories according to the site conditions, the expected vehicular and pedestrian traffic, and the anticipated threat levels.

Arm/Barrier Lights

A range of LED arm/barrier lights is available both to enhance deterrence and to ensure that the barrier is clearly visible from afar. LED lights can be mounted as a cap on a bollard, or in a line along the length of an arm barrier. LED lights can also be added to the motor housing unit to ensure that it can be seen clearly and to avoid accidental damage.

Warning Lights

Warning lights are typically installed either next to the road, on the motor housing (in the case of light arm barriers) or on the top of the fixed portion of the gate. In all cases the yellow light can be set to be fixed or flash and runs off either 24V or 220V.

Safety Edge

Installed on the edge of gates or underneath the arm of arm barriers, the purpose of the safety edge is to detect if an object has been touched and immediately reverse direction. Made of rubber. Conductive edge. Mechanical rubber frame with aluminum rail.

Traffic Lights

We offer a range of traffic lights suited to harsh outdoor environments. Rated to IP65, they are either 24V or 220V and are offered in both LED and incandescent versions. An anti-vandal housing has also been developed to enclose the traffic lights in locations where they are susceptible to damage or attack.

Loop Detector

A safety device for detecting vehicles above usually installed before and after the barrier. Sensitivity can be adjusted from 9V DC to 240V AC. Can be used to ensure that the barrier doesn't close when a vehicle is above the loop. This can of course be overridden in the case of an emergency closure of the barrier. Sensitivity is adjusted according to the location, the use and the threat.

Photo-electric sensors

One or two sets of photo-electric sensors are typically installed close to the barrier line and serves two purposes:

- To detect people or motorbikes which would the loop detector would not be able to sense.
- As a backup device in case of failure of the loop detector.

Speed Bumps and Parking Restrictors

Ideal for slowing down vehicles without causing damage, speed bumps are modular and can be combined to provide the required width. Durable parking restrictors provide an aesthetic and practical delimiter for parking spaces and will prevent damage to vehicles and buildings. Constructed entirely of rubber, they can withstand the pressure of constant vehicle passage and are suited to all weather conditions.

Sirens

Typically used in case of emergency barrier operation after an operator has pressed the emergency button, these sirens produce 114dB of sound and are rated at 40W. The sirens run off 12V, 24V or 220V and are engineered for outdoor installation and operate in harsh environmental conditions.
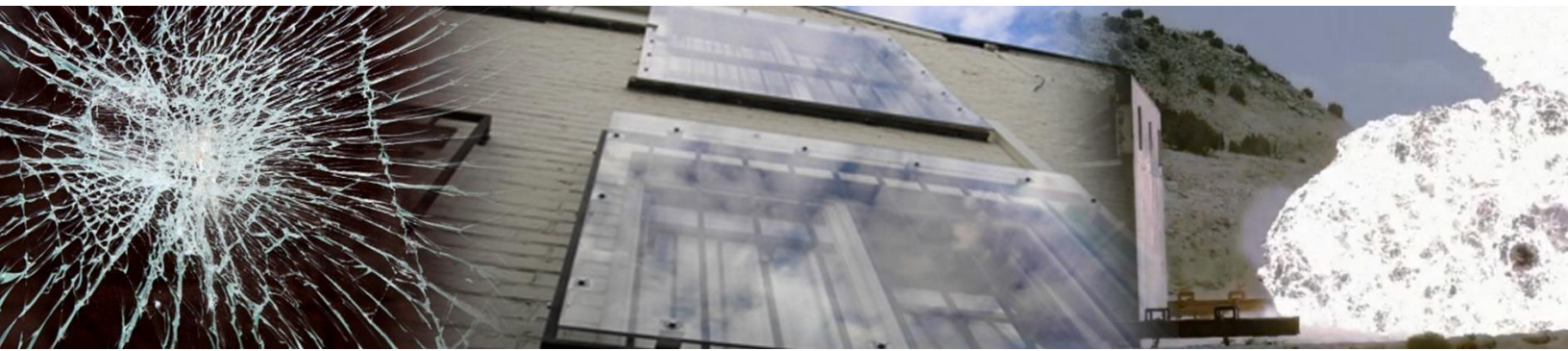
Arm Skirts

Where visibility needs to be increased for arm barrier and to provide more of a visual deterrence, skirts can be added to the arm barriers to help close the gap between the arm and the road surface.

Force Protection Solutions

Ballistic Protection

Our company offers solutions for various defense and homeland security threats from blast mitigation to ballistic protection, from simple crime to a massive terrorist attack. Providing solutions to complex protection application and combining experience in force protection solutions through the extensive knowledge of materials and technologies.

The systems provided in high end defense and security solutions are designed to protect against blast, ballistic and forced entry hazards. All systems are developed, tested and installed - blast resistant doors, blast resistant windows and blast resistant store fronts using the highest quality and standards of materials and technologies. Upon request bullet and/or forced entry resistance are combined into a single, multi-protection product.

Our range of products and solutions comprise in addition light composite ballistic panels, personal protective plates and bullet-proof body armor. Our range of products and solutions comprise in addition light composite ballistic panels, personal protective plates and bullet-proof body armor.

Why worry about Force Protection?
- Since 1970 there have been over 68,000 bombing/explosion terrorist incidents worldwide – with a spiking increase in bombing/explosion incidents and casualties in the last 5 years (Source: GTD)
- Explosive materials are readily available, inexpensive, easy to use and hard to disclose

    Bombing attacks and terror through car bombs, suicide bombings and individual attackers are difficult to detect

Core Competences in Force Protection is experience providing various force protection solutions for buildings, and infrastructures (Blast, Ballistics, Forced Entry) meeting strict blast & ballistic requirements. Live-testing programs are offered with full-size blast & ballistic testing capabilities. Force protection Engineering & project management services are available in various fields.

Source GTD: National Consortium for the Study of Terrorism and Responses to Terrorism (START). (2013). Global Terrorism Database [Data file]. Retrieved

from http://www.start.umd.edu/gtd

Blast Mitigating Fabric

Blast mitigation fabric is a unique solution which helps protecting walls against blast hazards. Tested in full scale blast tests our solution applied to inner or outer walls prevents concrete or masonry from collapsing in a case of a blast by dispersing the forces applied to the wall. Full engineering, project management and training is offered to our worldwide clients to ensure our product's full integration according to clients' requirements.

Blast Mitigating Fabric

Product Features:
- Withstands very high blast levels- 320 psi*msec (Impulse)
- Ideal for retrofit projects and for protecting historical buildings
- Can be used to protect inner walls as well as outer surrounding walls (embassies, government buildings, etc.)
- Can be employed easily to protect walls integrated with blast-proof windows
- Can be used in oil refineries – to protect from vapor cloud explosion threats
- Cost effective
- Environmentally friendly
- Porous material which prevent condensation and maintains area ventilation
- Can be easily painted with commercially available paints
- Fire retardant

Blast Mitigating Fabric

E-Glass

E-Glass protects buildings against ballistic, blast, forced entry and fire threats. It can be fitted into steel frames just like standard drywall panels. It is lightweight, thus easily carried and transported.

E-Glass is easily cut, drilled, sanded, painted, textured using ordinary tools and compatible with other wood or gypsum materials.

Advantages of E-Glass:
- Cost effective
- Easily handled and processed
- Ballistic resistance (EN 1522 FB-6)
- Durable and impact resistant
- Lightweight (compared to steel)
- Up to 1 hour fire rating
- Good chemical resistance, limits surface corrosion
- Provides additional electrical insulation

E-glass is commonly used in armoring military structures, police stations, courtrooms and other critical control rooms, safe rooms. In civilian structures e-glass is used in securing banks, cash boxes and jewelry stores.

Polyurea

Polyurea is a remarkable coating, lining and joint sealant technology that can be used for many applications. The polyurea coatings and linings are used for blast and ballistic applications, concrete steel for corrosion protection and abrasion resistance and over composite materials for abrasion resistance and fire retardant properties.

The advantages of polyurea over conventional materials are:

- Extreme resistance to weather conditions durability abrasion characteristics
- Extremely fast setting times
- high elongation

Polyurea is used to secure:

- Oil, Gas and Petrochemical infrastructure including pipelines (on shore and offshore)
- Military and Defense, including vehicles and facilities
- Most specifically as well, the mining industry physically secures itself with polyurea

Window and Door Protection

The systems provides high end defense & security solutions designed to protect against blast, ballistic and forced entry hazards – developing and installing blast resistant doors, windows and store fronts. Upon our clients' needs we combine bullet and/or forced entry resistance into a single, multi-protection product.

The company provides its solutions to foreign governments and organizations, military, banks, embassies, public and private sector companies, international organizations, architectural firms, security engineering firms, etc.

Below is a summary list of the types of Window and Door Protection:

- Blast Proof windows
- Ballistic Proof windows
- Forced Entry windows
- Blast Proof doors
- Ballistic Proof doors
- Forced Entry doors

Window Films & Anchoring Systems

Window Films & Anchoring Systems

Blast proof window films and anchoring systems are installed on windows, doors and store fronts transparent polyester based coating sheets with excellent tearing strength properties.

The company uses transparent Polyester based Coating Sheets with excellent tearing strength properties to offer our clients with various transparent retrofit security solutions by installing it directly onto existing windows, Doors and Store Fronts.

By bonding it to existing glass with special adhesives, we can offer blast

mitigation and forced entry solutions. It prevents glass from shattering into dangerous shreds in case of a blast wave or forced entry attempt.

The systems are offered in transparent and or tinted Solar Control films to accommodate our client needs. The scratch-resistant films do not affect the transparency of the existing glass.
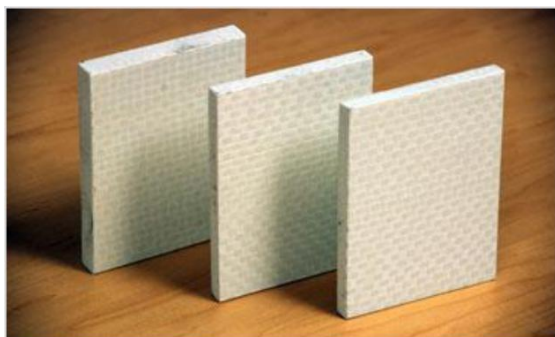

In existing glazing applications for very high level of blast - Cable Systems are designed to protect the inner surrounding from flying glass.

Wall & Room Protection
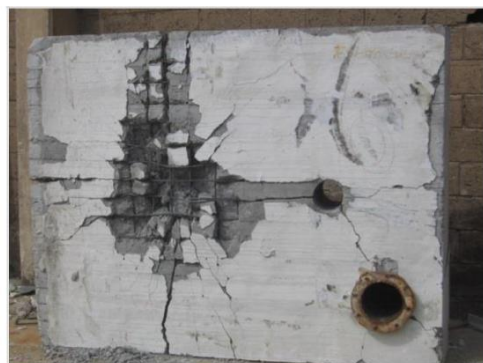
Steel Based Protection Systems

E-Glass Based Protection Systems

Polyurea based protection systems

Direct Hit Protection

Bomb Blankets

The Bomb Blankets can be quickly and easily thrown over windows, doors and walls, or used as a personal shield in hazardous situations. Rapidly deployed, the bomb blankets provide immediate fragmentation protection in high-risk situations including perimeter defense, mine clearance usage and shielding applications.

Product features include:

- An extra safety ring could be supplied along with the blanket upon customers request to be deployed around the charge (using Velcro closing systems) in order to give the blanket itself an extra gap from the ground in case of a blast.

- The ballistic materials are protected from the environment by high-strength abrasion resistant outer shell.

- 8 Heavy-duty handles for easy positioning in front of explosives, windows, high-risk areas, etc.

Bomb Blanket

Personal Ballistic Protection

Personal Protective Vest

An extensive variety of battle-proven Personal Ballistic Protection is offered, designed to provide with maximum comfort and the highest ballistic protection. In production robust yet lightweight ballistic fabrics (woven and non-woven) are comprised.

Hard Protection Panels

Various options of Hard Armor panels are available. Insert plates for upgrading the ballistic level in order to defeat NIJ Standards Levels: III, III+, III++, IV).

Hard armor plates include different ceramics (Alumina, Silicon Carbide, Boron Carbide) backed with different composite materials and or light composite Ultra High Molecular Weight Polyethylene plates.

Mobile Armor Protections

The mobile armor protection is a highly efficient and cost effective fully mobile armor solution, and modular protection system instantly creating a personal safety zone inside any vehicle.

The mobile armor protection product fits on any car seat. No structural changes to the vehicle are necessary. The device fits onto any car seat as quickly and easily as a child's safety seat.

It protects anyone sitting inside it as surely and as safely as if they were in a fully outfitted armored vehicle.

Mobile armor protection is the perfect solution for enterprises and organizations operating fleets of vehicles which may not require permanent protection solutions, but which do require quick fix protection solutions in any one of their vehicles at any given time, at extremely short notice. It is easily and rapidly transferable from one vehicle to another, making it an extremely efficient and cost effective solution.

Key product features includes:
- Fits on any car seat.
- No structural changes to the vehicle are necessary.
- Easily & rapidly transferable from one vehicle to another
- Lightweight – made of composite armor
- Outstanding ballistic resistance against:
  NIJ-STD-010108 Level III+ (7.62*51 FMJ, 7.62*39 MSC) (5.56*45 M-193)

The mobile armor protections are aesthetic in their appearance and can be custom made according to clients' needs.

Ballistic Proof Podium

Ballistic proof podiums are a cost effective solution, easily handled and maneuvered that comes with durable wheels.

The podium provides outstanding ballistic resistance against:

- Numerous hit ability
- Forceful mechanical strength

NIJ-STD-010108 Level III+ (7.62*51 FMJ, 7.62*39 MSC)
STANG 4569 L-1 (5.56*45 M193, 5.56*45 SS10

Ballistic Proof Podium

Ballistic Proof Podium