



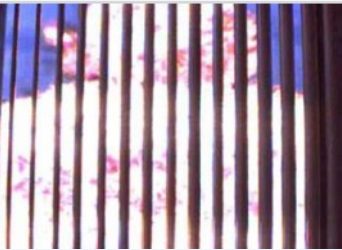
# Palo

## Consulting International

**Seminar Brochure**

**Huone Events Hotel, Clarke Quay, Singapore**

**17th October 2022**



# Contents

**3. Local Information**

**4. Palo Consulting International**

**5. Mira**

**7. Avon Barrier Corporation**

**9. Karablok**

**11. Safetyflex**

**13. Eruma Security International**

**15. Perimeter Protection Group**

**17. Perimeter Security Suppliers Association**

# Local Information

Singapore, officially the Republic of Singapore, is a sovereign island country and city-state in maritime Southeast Asia. Singapore is among the 20 smallest countries in the world, with a total land area of only 682.7 square kilometers. The United States is about 15,000 times bigger. Their land area includes as many as 64 offshore islands that surround the main island. These include Sentosa—a popular island resort with myriad attractions—and havens for nature lovers like Pulau Ubin, St John’s Island and Sisters’ Islands.

The population of Singapore is diverse, the result of considerable past immigration. Chinese predominate, making up some three-quarters of the total. Malays are the next largest ethnic group, and Indians the third.

None of those three major communities is homogeneous.

Because of this ethnic diversity, no fewer than four official languages are recognized—English, Mandarin Chinese, Malay, and Tamil. English remains the main medium for administration, commerce, and industry, and it is the primary language of instruction in schools.

Singapore is a unitary parliamentary democracy based on the Westminster model. The president, Halimah Yacob, is head of state and is the first female president in Singapore’s history.

Singapore’s national anthem is in micro-text on the back of their \$1,000 note.

Sang Nila Utama, a prince from Palembang, saw a creature he thought was a lion and named the island “Singapura” which means “Lion City” in Sanskrit. However, there have never been lions outside of captivity in Singapore.

The red of Singapore’s flag represents universal brotherhood and equality of man while the white symbolizes purity and virtue. The crescent moon stands for a young nation on the rise and the five stars signify the ideals of democracy, peace, progress, justice and equality.



# Palo

## Consulting International

Palo Consulting International Ltd is a specialist export and international business development consultancy providing help for businesses to engage with their world market.

We are a consulting company here to help with your international business development from strategic planning to implementation and will embark on as much or as little as needed.

Palo Consulting can provide detailed research work, assist with the set up of international exhibitions and bespoke seminars, we can work as part of your marketing team, plan and implement projects and can even assist with the broader business development strategy of the business. We develop projects in conjunction with client needs and budget constraints and while Palo can carry out the whole of the development process as a complete out-sourced partner, the most effective approach is for us to work as a member of the clients team.

For further information please visit: [paloconsulting.co.uk](http://paloconsulting.co.uk) or email them: [info@paloconsulting.co.uk](mailto:info@paloconsulting.co.uk)





# Protecting Your People and Critical Infrastructure



We are the leading provider of security product testing in Europe. Our experts work closely with governments and industry in the development of new standards, testing and introduction of highly effective security barriers.

**We provide vehicle impact tests to the following international standards:**

- Full range of IWA 14-1 and PAS 68 requirements (1500 – 30000 Kg)
- ASTM F2656: Standard test method for vehicle crash testing of perimeter barriers (1100 – 29500 Kg)
- US Department of State Crash Testing rating: SD-STD-02-01
- PAS170 low energy impact test standard
- The new VADS (Vehicle Attack Delay Standard) developed with CPNi

**Our comprehensive security product test service is enhanced by:**

- Comprehensive test programme support
- Logistics support for testing products
- Test vehicle supply
- Scope for extensive product installation
- Management of civil installation
- Legislative reporting

**Benefits of our services**

- Future proof product compliance with current and future standards
- Significant experience - over 1000 security product tests delivered in the last 10 years
- Compliant to ISO 17025, 9001, 14001 & 18001
- Dedicated customer facility
- 40,000m<sup>2</sup> test site for extensive product installation (temporary or permanent)
- Develop alternative applications through product partnerships with other customers

**HORIBA MIRA Ltd.**

Watling Street, Nuneaton, Warwickshire, CV10 0TU, UK  
+44 (0)24 7635 5000 | [www.horiba-mira.com/enquiries](http://www.horiba-mira.com/enquiries)

[www.horiba-mira.com](http://www.horiba-mira.com)

# Making Journeys Safer, Cleaner and Smarter

We are a global provider of automotive engineering, research, and test services, with 75 years of experience in developing some of the world's most iconic vehicles.

Working in collaboration with vehicle manufacturers and suppliers around the world, we provide comprehensive support ranging from technology development and individual product tests through to full-vehicle design, development and build programmes.

Whilst traditionally known for our vehicle test services – including over 40 major facilities and 100km of Proving Ground – we offer so much more than this. Over the last ten years we have invested heavily in the evolution of our engineering capability and in the development of MIRA Technology Park, Europe's leading mobility R&D location for developing the latest automotive technology.

The unique combination of engineering expertise, advanced testing facilities and prime location of MIRA Technology Park in the heart of the UK automotive industry, enables customers to develop and validate their technology, or vehicle, in one place.

Our purpose is to improve lives by making journeys safer, cleaner and smarter.

**HORIBA MIRA Ltd.**  
Watling Street, Nuneaton, Warwickshire, CV10 0TU, UK  
+44 (0)24 7635 5000 | [www.horiba-mira.com/enquiries](http://www.horiba-mira.com/enquiries)

[www.horiba-mira.com](http://www.horiba-mira.com)







**Avon Barrier**

Member of Perimeter Protection Group

## Avon Barrier

Avon Barrier is an international designer & manufacturer of high security Hostile Vehicle Mitigation (HVM) solutions these include automatic bollards, fixed bollards, barriers, vehicle gates and road blockers.

Their solutions have been independently and successfully crash tested to the internationally recognised standards, PAS 68, IWA 14-1 & ASTM F2656. They are designed to protect perimeters and access points of critical infrastructure and public places against a vehicle with hostile intent, this could be an act of terrorism, criminality, such as a ram raid or just accidental loss of control of a vehicle.

### Sector Solutions

Avon Barrier provide solutions to a variety of industry sectors, their experience is extensive in providing physical security solutions globally to both public and private industries,



including airports, oil & gas, financial institutes, government buildings, data centres, military bases, stadia and shopping malls.

Their business and products have evolved around their knowledge and experience in the development of the vehicle security barrier impact standards PAS68 & IWA 14-1. Their expertise enables them to work closely with consultants, specifiers and contractors to deliver systems that not only meet specifications, but where required, they also have the flexibility to work closely with clients to deliver bespoke system designs.

Quality and reliability are at the forefront of their product development, providing robust solutions to operate within the sectors they are deployed within.



### Security Products

Avon Barrier specialise in providing physical vehicle and pedestrian access control systems. Manufacturing a high-quality product range including:

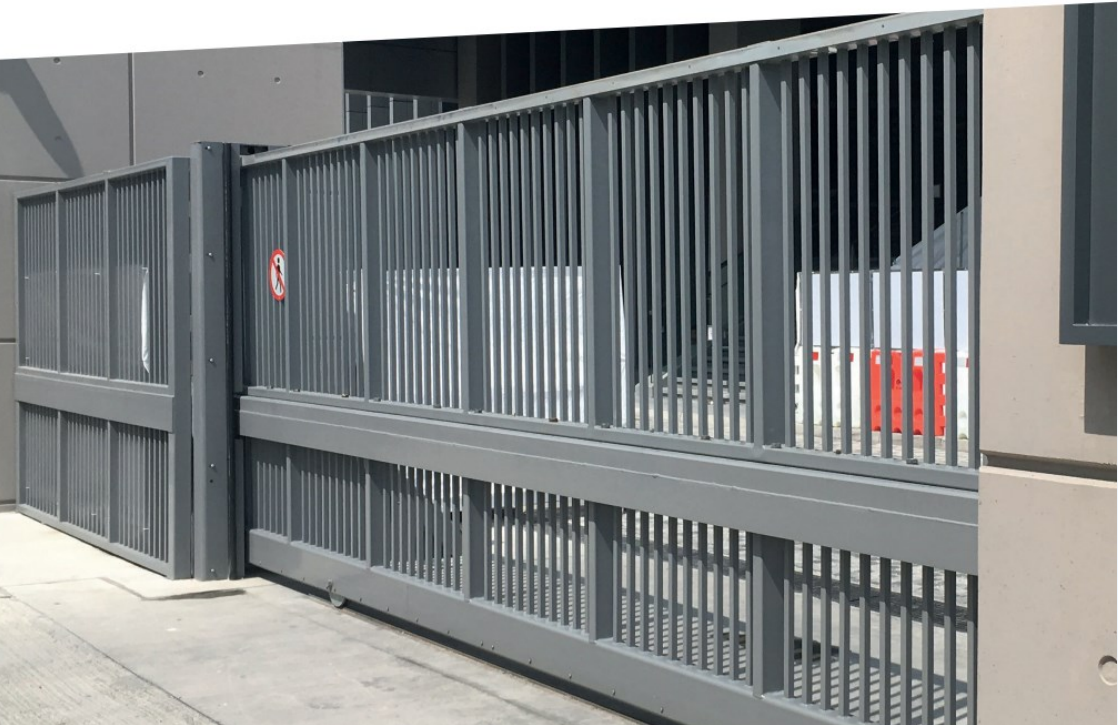
- » Road Blockers
- » Sliding & Bi-Folding Gates
- » Barriers
- » Automated & Fixed Bollards

Their products suit a variety of applications. Foundation depths include, shallow, surface mounted and removeable products. Their range of vehicle security barriers offer solutions that can be fully automated with access control systems or simply manually operated, requiring no power and still provide a high level of physical protection.



Member of Perimeter Protection Group

t: +44 (0) 117 953 5252  
e: [sales@avon-barrier.com](mailto:sales@avon-barrier.com)  
w: [www.avon-barrier.com](http://www.avon-barrier.com)





# KARABLOK



KarabloK is a blast-proof and crash-proof modular precast concrete system that forms a highly effective security barrier. Tests have shown it provides protection against multiple cannon strikes, large blast loads and vehicle impact attack. It can be quickly installed and is designed to look good.

M  
Post Test

## Hostile Vehicle Mitigation

KarabloK has been tested and certified to the following standards as a rapid deployment, surface-mounted hostile vehicle mitigation system or HVM:

- IWA14-1:2013 Barrier V/7200 [N2A]/64/90:0.4\*
- IWA14-1:2013 Barrier V/7200 [N3C]/80/90:1.1\*
- M50 P1 rated to ASTM
- STANAG 2280





# KARABLOK



## Ballistic and Blast Wall

KarabloK units are designed to provide effective ballistic and blast walling and have been successfully tested against many blast, frag and high explosive artillery rounds including:

- 30mm HE Rounds
- Swingfire warhead
- 155 NATO warhead
- Milan warhead
- 36kg of High Explosive



Using the results from these tests, the KarabloK units are proven to be compliant with STANAG 2280, the NATO standard for ballistic, blast and impact barriers.

For further information please visit: <https://www.karablok.global/> or email them: [gneale@karablok.global](mailto:gneale@karablok.global)





ANTI-TERRORIST BOLLARDS  
BLOCKS • CRASH FENCES  
CRASH GATES & BARRIERS



Safetyflex are a world leader in crash-rated solutions. Using our patented spring steel designs, we are able to offer an aesthetically pleasing, slimline solution that doesn't compromise on protection.

Our range, which includes bollards, crash gates, crash fences and crash blocks are all tested to PAS68 and IWA-14 standards.

Safetyflex Barriers have been commissioned by Governments and large corporations worldwide to provide and consult on many hostile vehicle mitigation projects intending on protecting their perimeters with Crash Rated PAS68 & IWA14 Bollards and crash fences. We are proud to say that we protect some of the most prestigious and high security sites around the world and specialise in securing long perimeters and public realm projects such as:



- Shopping Centres
- Sports Stadiums
- Airports
- Nuclear Sites
- Oil & Gas
- MOD & Military Bases







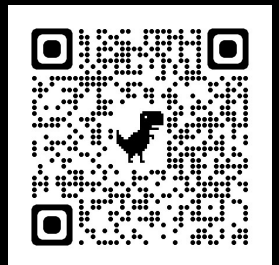
ANTI-TERRORIST BOLLARDS  
BLOCKS • CRASH FENCES  
CRASH GATES & BARRIERS



We design some of the most innovative crash-rated bollards, blocks, street furniture, gates and fence systems globally, which protect sites from a terrorist or criminal vehicle attack. Safetyflex products can be used in a wide range of industrial and commercial applications including road blockers and perimeter fencing, Industrial Security Safety Barriers, Car Park Barriers, and Bollards. All of which help to protect premises, machinery, vehicles and most importantly people.



For further information please call +44 (0) 2476 662116 or email:  
[info@safetyflexbarriers.com](mailto:info@safetyflexbarriers.com) or visit: [safetyflexbarriers.com/index.php](http://safetyflexbarriers.com/index.php)





Eruma Security International Ltd are a specialist provider of protection for windows against a wide range of threats. The protection afforded by Eruma Security ranges from forced entry protection through to blast / explosion protection.

### Blast Protection Blinds

The Blast Protection Blinds protect people, assets and Critical Infrastructure against explosive impact.

Blast Protection Blinds provide substantial protection against a wide range of explosive attacks from rucksack/satchel bombs through to car and truck bombs.

The way the Blast Protection Blinds protect is deceptively simple. The second a blast occurs in the vicinity of your protected premises, the blades snap shut. This provides an impenetrable barrier, preventing flying glass and debris from penetrating the building, protecting both the internal premises and individuals in them. The building also remains secure from looting.





### Forced Entry Protection Blinds

The Forced Entry Protection Blinds have been tested to meet the UK's exacting standards for forced entry protection. The Blinds safe-guard your business, assets and property.

It's not just businesses that can benefit from the product, the Forced Entry Protection Blinds are an attractive and appealing option for use in the home blending comfortably with both offices and home settings alike.

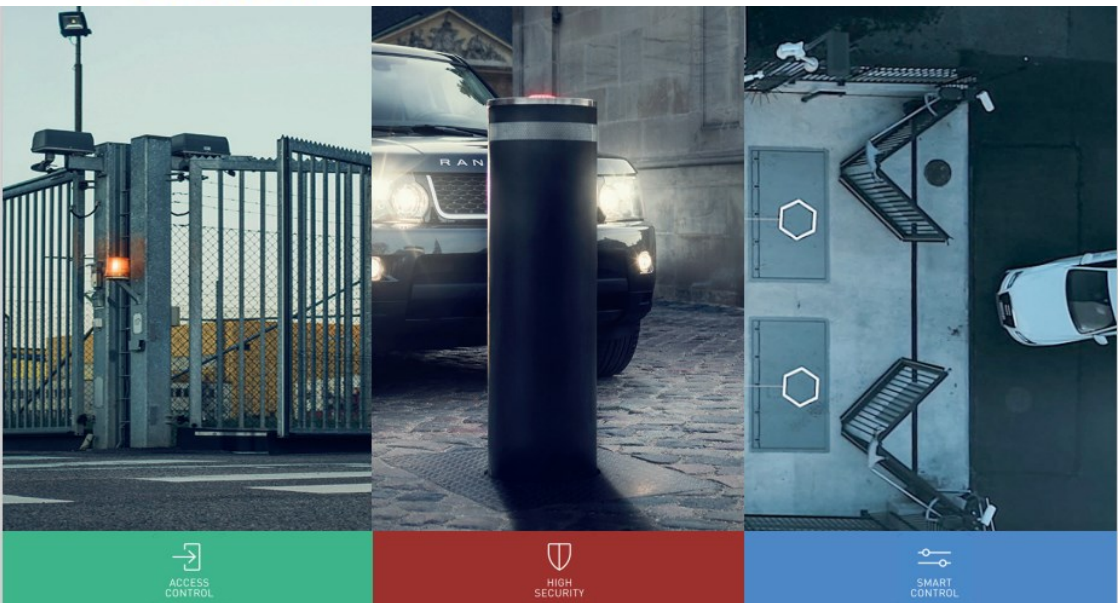
This will give the usual convenience of normal vertical blinds with the added benefit of high level security against intrusion and forced entry.



For further information please call +44 (0) 1709 377736 or email:  
[info@securityblinds.co.uk](mailto:info@securityblinds.co.uk) or visit: [www.securityblinds.co.uk](http://www.securityblinds.co.uk)



Keeping  
Your  
Perimeter  
Secure



## PPG

### Quality and Tradition

Since 1951 Collaboration and transparency are paramount to meeting and exceeding our customers' expectations because their satisfaction is our top priority.

We are one of the leading manufacturers in high security as well as access control and smart control. We offer our customers security solutions for a variety of applications. Our internationally certified high security products include crash-rated gates, wedge barriers, security bollards and road blockers.

In addition, we manufacture classic perimeter protection, access control products. With our many years of experience, subsidiaries in six countries and a globally operating network of distributors, we offer you everything from a one-stop shop – from individual products, project management, to a complete security solution.

## Reliable high-security products 'Made in Germany'

Our high security products carry the 'Made in Germany' label and are the ideal choice for a comprehensive security concept in critical infrastructures including military facilities, power plants, airports, and inner-city areas. Our innovative portfolio includes a variety of crash tested vehicle security barriers. One of the many innovations PPG offers, are the world's shallowest foundation products, providing security even in the most challenging of environments.

## Research & Development

At PPG, we have always placed great emphasis on continuous research and development to constantly optimise our products and services. Regular training of staff, partners and distributors ensures professional competence and expertise in all areas. This is complemented by high-quality, state-of-the-art products. Our forward-thinking culture sets the PPG Group at the forefront of the high security market.

## Comprehensive customer service

We offer a complete service in all matters of security: In addition to our extensive product portfolio, our staff and carefully selected partners, provide a comprehensive service. Knowledgeable advice, planning and competent project management from the start, is the basis of our corporate philosophy. An experienced team of security consultants and technicians is available to assist in this process.

## Security Products

- Sliding Gates
- Quick Folding Gates
- Turnstiles
- Bollards
- Street Furniture
- Road Blockers
- Barriers
- Smart Control


## Security Solutions

- Embassies & Consulates
- Power Plants
- Prisons & Correctional Facilities
- Seaports & Harbors Road Blockers
- Financial Sector
- Stadiums & Sports Venues



[www.perimeter-protection.net](http://www.perimeter-protection.net)





Originally founded in the UK in 2009 the PSSA is an international specialist security association that focuses on high security perimeter protection with an emphasis on hostile vehicle mitigation (HVM). Our members include the significant majority of the premium manufacturers and installers of HVM and high security perimeter products.

While all of our members already operate at the highest professional level, we have introduced codes of conduct and operational schemes to ensure that the communication and quality provided by our members are clear, consistent commensurate with requirements.

Our main aims are to:

- Ensure professionalism and a strong ethical approach to business within the association
- Raise quality standards in the manufacture and installation of high security perimeter equipment.
- Facilitate and drive interaction between industry / government / academia to improve communication in a fast developing requirement
- Encourage development of high security products to counter evolving threats







To maintain our standards, all members are thoroughly vetted before being accepted as members and the association carries out a continuous process of revalidation of this vetting to ensure that all members maintain the strict standards required of association membership.

PSSA membership is already considered the benchmark for professionalism and integrity in the high security perimeter industry and continues to develop its focus with its regional chapter structure.



For further information please call +44 (0)20 8253 4509 or email:  
[admin@pssasecurity.org](mailto:admin@pssasecurity.org) or visit: [pssasecurity.org](http://pssasecurity.org)



# Notes







**Palo**  
Consulting International