Fire Industry Association
Export Council

FIA Exporters

A Selection of Overseas Projects Case Studies

- **Export Focal Point for the British Fire Industry**
- **Promoting British Fire Safety Excellence Internationally**
- **A DIT Trade Challenge Partner and Member of the Joint International Fire Board and its Strategy Group**
- **Assisting Members in maximizing their export capabilities**

The UK Fire Protection and Fire and Rescue industries are recognised across the globe for their quality products and engineering expertise.

FIA Exporting Members are part of the Fire Industry Association and comprise a range of organisations within the UK fire safety sector.

Some are smaller companies wishing to enter overseas markets for the first time or to expand their export interests. Others are larger world-leading companies that acknowledge the benefits of working together within the FIA to promote UK products, services and standards.

They are represented collectively by the FIA Export Council, an elected body which meets quarterly to discuss FIA Exporting Members' activities and determine the priorities to be pursued.

Advanced Chosen to Protect Landmark HQ Building

Global fire systems manufacturer Advanced has been selected to protect the new global headquarters of Landmark Group in Dubai.

Founded in 1973 in Bahrain, the Landmark Group has successfully grown into one of the largest and most successful retail organizations in the Middle East, Africa and Indian Subcontinent. It operates over 1,900 outlets encompassing over 24 million square feet and employs over 50,000 people.

Located on Dubai Marina, overlooking Sheikh Zayed Road, the flagship corporate HQ will boast 10 floors for parking, 19 floors for offices, an elevated glass boardroom on the 20th floor and 12 high-speed elevators. The consultant for this project is Arch Group, one of the leading consultants in the region.

Steve Carroll, Advanced's General Manager for the Middle East, Asia and the Pacific, said: "Advanced is renowned for providing the best fire systems in the business and a project such as the Landmark Group HQ is an excellent opportunity to showcase what we can offer. The Axis panels that will be installed are reliable and intuitive, while also offer offering the flexibility to be upgraded and expanded in the future."

A total of 4,500 devices will be installed in the new building, including six Advanced Axis four loop panels and 30 audio amplifiers, one dedicated to each floor of the building. Axis panels can be used in single loop, single panel format or easily configured into high speed, 200 panel networks covering huge areas.

Advanced's Axis fire systems are sold worldwide and are approved to the major international standards EN54 2, 4 & 13 and UL864 9th edition and a host of regional and local standards. Alongside the core panel range, they include high performance device, module and peripheral ranges which combined with Advanced's legendary ease of installation and configuration, make Axis customisable to almost any application.

Wellington Hospital, New Zealand

The hospital required the installation of more than 1,300 fire detectors across multiple buildings, a tailored graphics package and a 50-zone emergency warning system.

Wellington Hospital is New Zealand's main tertiary hospital and supplies specialist and acute services, including cardiac surgery, cancer care and neurosurgery. This new complex houses many essential in- and outpatient services over its six storeys, as well as incorporating underground parking at basement level.

Ampac Pacific Ltd. were called in to design and install a system that would protect New Zealand's main tertiary hospital.

- Large and complex site.
- Needed easy to configure systems.
- Required tailored graphics package to help support the users of the system.

Aquaheat Industries Ltd, the main electrical contractor on the project, called in fire system specialists Ampac Pacific Ltd, a company that has successfully championed Apollo technology in New Zealand for many years. This extensive knowledge of Apollo devices made the design and installation of the system much easier.

Ampac provided a comprehensive fire detection system that incorporated Apollo XP95 and Discovery devices. These were controlled by nine Ampac FireFinder control panels which were networked together and supported with Ampac's own graphics package. The company also developed the EWIS system that was used at this site to provide staged evacuation in the event of a fire incident.

The Wellington Hospital is one of Aquaheat's biggest achievements to date due to its size and complexity, we were confident that Ampac's Apollo-based fire detection solution would meet the challenge. When you are under a lot of pressure to get the job done, you want good support and systems that are easy to configure. We have never had problems with any Ampac systems.

COLTRACO
Ultrasonics | since 1987

Amtrak High Speed Rail using Portalevel® MAX for FE-13 on Rolling Stock

Amtrak's HSR Fleet Maintenance Systems wished to verify that the HSR Power Car FE-13 fire suppression cylinder has not discharged and to ensure full compliance with the train borne fire suppression system manufacturer requirements and all applicable Amtrak, OSHA, NFPA and FRA policies and procedures. They were keen to have a better method than annual weigh-in procedure for testing the liquid level contents in their FE-13 cylinders and chose our handheld ultrasonic liquid level indicator Portalevel® MAX 8th generation.

The Power Car Central Blocks on the trains housed high and low voltages so care had to be taken to ensure the power car was grounded prior to initiating work. Ultrasonic liquid level indication Portalevel® MAX technology was preferred to the traditional method of weighing because it minimised the risks of turning off the fire system and dismantling the systems in order to remove the cylinder and place on mechanical scales. Portalevel® MAX enables far quicker testing, effectively and simply.

Technical support was required to ensure the user was operating the Portalevel® MAX correctly. Following familiarization and support over the phone, real time and via e-mails, the user clarified any issues and learnt 'how to properly interpret the Portalevel® MAX display readings'. Temperature proved an issue with the solution being to test the temperature using an infrared thermometer on each occasion. Detailed reporting by AMTRAK enabled the Coltraco Technical Support to learn more about their specific application and to understand where Coltraco needed to improve the Operating Instructions and to assist the customer by clarifying the measurement

The result from this project is that AMTRAK judged Coltraco Ultrasonics' Portalevel® MAX ultrasonic liquid level indicator to be the most effective means to test the FE-13 cylinders in their Power Cars and they are now embedded in their HSR Fleet Maintenance System.

Splendid Isolation Created by C-TEC's Innovation

C-TEC's unique BF366 keyswitch isolatable relay is at the heart of the life-safety systems at an imposing new care facility in Oslo, Norway.

Located on a hill in the picturesque Høybråten area, Stovner Forest Nursing Home provides a safe haven for over 100 elderly people. With dedicated healing gardens, a day centre and chapel, the home also hosts major cultural events, seasonal parties, hiking tours and a Christmas fair for residents.

Central to the building's sophisticated life-safety systems is C-TEC's 24V 5A keyswitch isolatable relay which allows communication between the fire system and the sprinkler system to be temporarily disabled during routine test and maintenance to prevent it from accidentally activating. Crucially, the relay also provides a clear indication of when the sprinklers are 'isolated' to satisfy specification requirements.

Said Trond Rossing of Schneider Electric, the company responsible for installing the system, 'as almost all new buildings in Norway must be equipped with an integrated fire alarm and sprinkler system to alert the fire brigade, C-TEC's BF366 represents a vital means of integrating the systems and allowing communication to be disabled during testing periods to reduce the impact of false alarms.'

detectortesters
testing technology from No Climb

Schiphol Airport - Netherlands

Amsterdam Schiphol is one of the world's major hub airports. In 2013, some 52 million people and 1.5 million tonnes of cargo passed through it and paramount in all this is the safety of passengers and public as well as the protection of property and assets.

Keeping the site running whilst protecting it fully is no easy task and Schiphol works to minimise any risks as much as possible, with one key area of focus being protection against fire. It is essential when protecting such buildings that suitable systems are in place to monitor for fire and provide early warning for evacuation, whilst balancing this with the need to keep the airport running and the importance of avoiding false and unwanted alarms.

It is crucial that functional detection system testing is carried out on a regular basis in such a way that it is controlled, quick, and cost effective and without any disruption or risk to people and the continuity of business. Schiphol's technical department for fire identified ways in which maintenance, technically and practically, could evolve to keep pace with the advanced sensing technology being deployed across the airport site.

Schiphol's technical department for fire identified that the latest innovation in test technology, Scorpion, would be an ideal, professional test system to test and maintain their intelligent detection systems [Point and ASD]. They identified that for many detectors which are installed in locations where access is restricted either physically or for security reasons, Scorpion could be installed at a one-time cost. Periodic testing thereafter consists of a single person performing a push button test at an easily accessible control unit and Scorpion's installation can reduce the need for access machinery, disruption, unnecessary health & safety risk and the related costs.

Scorpion has been initially installed successfully in a server room where a technical test of the ASD system can be carried out. Such a test ensures smoke can be drawn into a sampling hole at the end of the pipe, that smoke can then travel the length of the pipe and be detected by the sensor. With an in-built transportation timer and the repeatable nature of the testing, monitoring of the system's performance [and any fluctuations] can be done through the time measurements taken at each periodic maintenance visit. A complete system check can ensure the integrity of the pipe network and the function of the detector, crucial elements in providing early warning.

Eaton's flexible solutions selected for SBS's new smart logistics hub

Founded in 1994 in Novara, Italy, SBS S.p.A. is an international benchmark for the cell phone accessories sector with products now sold in over 56 countries. To offer its global customers a more efficient service and enhance growth prospects, SBS recently built a new logistics hub in Paruzzaro.

Wanting to refine the product supply system and implement new warehouse technologies, SBS recognized the benefit of collaborating with a single partner to set up the new smart hub, enabling it to maximize storage capacity and streamline management.

'We had worked with Eaton before and we decided to work with Eaton again owing to their experience in energy management, and the reliability and flexibility of their solutions. Other key aspects in choosing a partner were efficiency, product quality, and the ability to offer us timely and professional support throughout the entire development and implementation process', said Gianni Storti, CEO of SBS.

Eaton was also commissioned to safeguard the warehouse against fire using an automatic fire detection and emergency lighting system that covers all areas of the logistics hub.

The fire detection system installed by Eaton consists of a single fire alarm control panel—CF30002GIT—that manages the control units and pipes in the various areas. Inside each one are highly sensitive sensors that detect the level of particles in the air and sound an alarm, if necessary, through specific sirens. In addition to the main control unit installed in the compartmentalized and fire-protected electrical cabinet, Eaton then installed a repeater panel in the operating offices.

"The time required to implement the systems was shorter than expected, partly due to the quality and performance of Eaton's components. A few months later, we managed to navigate the new technological curve by exceeding objectives that would previously have been impossible to achieve," concludes Gianni Storti.

Cirque du Soleil – Singapore

Cirque du Soleil is an internationally known touring circus production hosted by Kooza, performing in cities such as Beijing, Sydney, Buenos Aires and more. This installation project in particular was for the circus' show in Singapore in July 2017, in which Cirque du Soleil needed adequate fire safety precautions to be installed prior to the show.

The client required modern intelligent fire control panels, capable of hosting a large number of devices, that are easy to use and easily configurable. This requirement was influenced by the sheer size of the arena that the show would be hosted in, the volume of people contained within the arena and the nature of the event using fire as part of the performance. Cirque du Soleil needed a system that could detect any hazards in the most efficient way.

Due to the nature of the site, a circus within an arena, management do not want to disturb/evacuate the attendees and stop the performance for any false alarms. For this reason, our solution was to install an Intelligent Evotech control panels connected to Euro-fi wireless devices.

The Evotech intelligent panel is available with 2 or 4 detection circuits, each capable of hosting up to 240 Eurotech devices, perfect for the size of the project. Evotech uses the most advanced microprocessor technology to provide a control system of extremely high integrity, ensuring any hazards are dealt with efficiently.

The Euro-fi wireless devices that were installed provided a convenient method of increasing the radio communication range by relaying the communication directly to the wireless field devices should a hazard occur. This functionality made it possible to build a large fully wireless system where, due to the size of the arena, cabling for translators was impossible.

eurotech®
fire systems limited

Eurotech and Teksfera - The Dubai Partnership

Teksfera is a leading fire systems organisation for the design, installation and maintenance of fire protection systems. Based in Dubai, Teksfera has partnered with Eurotech to distribute Eurotech's exclusive Toccare Intelligent Touchscreen Fire Panel, the Evotech Intelligent Fire Panel, the Eurotech Intelligent fire system product range and Euro-fi wireless detection modules.

These Eurotech product ranges have achieved Civil Defence Approval, a requirement for any fire safety product purchased and installed in Dubai. Teksfera are also licensed with the Dubai Civil Defence, with their engineers undergoing the specific required training by the Civil Defence for the installation and maintenance of fire safety systems.

Since entering the Dubai market over 10 years ago, this exclusive_partnership with Teksfera has allowed the further development of the Eurotech brand within the area with the clear objective of protecting life and property through the installation of robust, compliant life safety systems.

Teksfera has completed several recent installations including Gleinbeigh, North South Logistics in DWC, Meraas Estates, Bait Al Yazi, Kinmere, Alkharbash and Al Qaize, Centurion Onyx, G+6 in Al Barsha South.

These residential and commercial properties were protected with the new touchscreen Toccare panel, integrated with the Eurotech intelligent detector range. Requiring an easily accessible system control panel, the Toccare panel was also chosen to fit seamlessly with the high-end interior décor and to meet the standards for fire safety.

Teksfera also recently protected the Remran Masjid mosque. A fire detection system was required to ensure the fire safety of the building and occupants during worship. A complete fire protection system using the Evotech Intelligent Panel integrated with the Eurotech Intelligent detection range was installed and commissioned.

New Los Angeles Federal Courthouse kept safe with FFE's beam smoke detectors

To ensure optimum fire detection in its large atrium, the impressive new Los Angeles Federal Courthouse has installed four Fireray beam smoke detectors from FFE. The units were commissioned and installed by SimplexGrinnell.

"Because the atrium is so high, conventional smoke detectors were not suitable for this installation," commented Managing Director Mark Osborne. "Our Fireray 5000 auto-aligning, reflective smoke detectors were selected instead as they are ideal for this kind of large interior, providing extensive coverage at minimal cost."

Fireray 5000 beam detectors work by transmitting a beam of invisible infrared light across the building space to be protected. A receiver detects and measures the light and can recognise smoke interference anywhere along the beam path, triggering the alarm signal when the pre-determined threshold is reached.

One of the deciding factors in Fireray 5000 detectors being specified for this application is the 'low level controller' feature, which means maintenance and testing can be carried out via the control room. "As the units are situated high up, physically accessing them regularly is exorbitantly expensive and impractical, so remote access is essential," says SimplexGrinnell's Construction Manager Sharon Brown.

Another important factor in any new-build project is building movement. All new buildings need to 'settle', and for beam detectors, which rely on precision laser alignment at opposite ends of the building, any movement can mean the beams become unaligned. The Fireray 5000 compensates for this through its 'auto-alignment' feature, ensuring beams remain aligned during building movement, without causing nuisance alarms or requiring a technician.

The new 10 storey, 633,000-square-foot courthouse, which is situated in downtown Los Angeles, contains 24 courtrooms and 32 judges' chambers and has sustainable features such as a serrated facade that maximizes views yet also reduces solar heat gain by nearly 50 percent.

Hochiki Europe Revs Up Fire Safety for Motorcycle Factory

The Yamaha motorcycle factory in Chennai, India, is protecting its employees with a low maintenance, high-performance fire alarm system, provided by Hochiki Europe.

With a population of 6,000 workers in eight large buildings spread across a vast 147,450m^2 site, Yamaha's building designers faced a challenge when developing a centralised fire safety and emergency lighting network.

The distance between the buildings and the number of devices needed made it impossible to use a single control panel for the entire plant. At the same time, installing a separate control panel in each structure would be expensive and make it more difficult to look after long term. Hochiki Europe recommended dividing the site's buildings into four separate groups, each connected to a centralised control panel – provided by the manufacturer. This would overcome the challenge presented by the site's complexity, while simplifying maintenance and monitoring procedures.

Photoelectric Smoke Sensors from Hochiki Europe were selected for use in all buildings across the site. Offering high-precision chamber technology, rather than standard ionisation sensors, the solution has a greater particle sensor threshold than traditional products, minimising the risk of false alarms.

Hochiki Europe's Intrinsically Safe Photoelectric Smoke Detectors were selected for the site's paint store area. These detectors have been specially designed to operate on a reduced current and have been third-party approved for use in hazardous areas. They are installed in conjunction with a barrier, which reduces the energy entering the hazardous zone and their components are encapsulated in a non-conductive material, negating the chance of sparking and igniting a flammable atmosphere.

In the canteen kitchen, Hochiki Europe recommended the installation of its Water-Proof Heat Detectors. Featuring a variable Fixed Temperature heat element, these sensors are able to overcome the issue of excessive smoke from cooking food. Their water-proof casing means that they are able to withstand the humidity of the kitchen, increasing durability and cutting maintenance needs.

Hochiki Europe Protects Students from False Alarms

Two sophisticated student accommodation developments in Germany are eight storeys high and capable of accommodating 239 residents at each location. Both named The Flag, they provide a flexible, smart city living space for students in Frankfurt and Munich.

One challenge that arose when specifying the life safety solutions for The Flag was the complexity of the sites. The nature of the buildings called for compliance with European EN standards including EN 54 Fire Detection and Fire Alarm Systems. It was also imperative that products selected offered optimum reliability to safeguard the wellbeing of occupants and limit the risk of false alarms.

800 multi sensors were installed throughout which offered a number of benefits when it comes to reducing the risk of false alarms in residential environments, thanks to in-built intelligence. The sensors can be programmed in a way that ensures alarm conditions are reached only when smoke and heat are present at specific levels to minimise false alarms, and prevent unnecessary evacuations of residents.

The base sounders selected for use likewise feature in-built intelligence, and have an auto shutdown feature to reduce the risk of noise pollution, a common issue in large housing developments such as The Flag.

Discovery Data Centre - Johannesburg

Discovery is a South African financial services group. It is seen not just as a leader in the financial services sector but a pioneering employer within South Africa.

The business is moving to a purpose-built $230m head office in the Sandton suburb of Johannesburg. While meeting world-class environmental standards, Discovery is also aiming for operational excellence throughout; it wanted the very best fire suppression system for its new 700 m^2 data centre.

The data centre project required two innovative solutions; the Johnson Controls iFLOW fire suppression system used in conjunction with the Johnson Controls Acoustic Nozzle Solution – a first for the South African market.

This Acoustic Solution uses an innovative acoustic nozzle and an acoustic calculation tool to estimate the sound pressure level at a hard disc drive (HDD) location.

It simplifies the calculation by containing drop down menus for the suppression system parameters, as well as selection of room materials and the equipment within the data centre. This enables SFP's Technical Services team to perform calculations tailored to each customer installation.

Dan Lurie, Contracts Manager at SFP, the South African systems integrator leading the implementation said: 'Vibrations from the discharge of an inert fire suppression system could damage the HDDs and destroy data. Discovery understood that this was an issue. Johnson Controls' Acoustic Solution was perfect as it's one of the main methods in reducing noise levels to an acceptable level.'

NITTAN

Nittan Fire Detection Equipment at a World Heritage Site in Italy

Nittan fire detection equipment has been installed in to the UNESCO World heritage site Piazza del Duomo in Pisa, Italy as part of an integrated fire and security system designed and installed by Nittan agent EL.MO Spa.

Piazza del Duomo is a magnificent square that represents the best example of the Pisa Romanesque style as well as being home to four outstanding monuments: the Cathedral, the Baptistery, the Camposanto [cemetery] and the world famous 'Leaning' Tower of Pisa. In addition, there are two museums - the Sinopie Museum which hosts the big preparatory drawings recovered beneath the frescoes decorating the Camposanto and the Opera del Duomo Museum which shows the history of Pisa art and sculpture of the Middle Ages.

These historically significant sites and precious works of art require round the clock protection afforded by a highly reliable integrated security and fire protection system. The proposed integrated system from Italian company EL.MO was selected by Opera della Primaziale Pisana [OPA] - a non-profit organisation which oversees the Piazza del Duomo - as it met the exacting requirements, utilising both existing equipment where possible and seamlessly intergating new devices; delivered by a company with over 40 years of experience in designing, producing and supplying similar systems both nationally and internationally.

Nittan fire detection devices were specified by EL.MO for this prestigious project due to their exceptional reliability, compatibility with EL.MO's FX series of analogue addressable control units and unique features, such as a 360° OMNIVIEW LED indicator which permits clear and visible indication of the sensor's operation from any angle. Nittan devices have been installed within the Camposanto, the Cathedral, two museums and within Piazza del Duomo's administrative offices. An exceptionally large fire detection system, it features 1,000 zones and seven fire detection control units.

Why Select an FIA Exporter?

- **Members of the FIA, the UK's leading fire safety trade body**
- **World leaders in fire safety**
- **Historical pedigree with modernistic approaches**
- **Best practice in fire safety, business integrity and ethics**
- **Quality and innovation**
- **Recognised standards, approvals and certifications**
- **Full range of fire safety solutions**
- **Cultural awareness**

For more information about FIA Exporters and the Export Council, go to
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