



innovations

A MAGAZINE FOR ARCHITECTS



DEC/JAN 2017 EDITION

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La Vela



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- Due to the easy handling the La Vela can be used fast and effective.
- For the perfect fire enjoyment with an almost odorless combustion
- La Vela is available in 9 different sizes and therefore usable in a versatile manner.

ENQUIRY 1





Just some of this month's highlights...

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Front Cover...Photo kindly supplied by Armourcoat

www.armourcoat.com

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Published by: Link2Media Limited

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ENQUIRY 2

Vent-Axia's Sentinel Kinetic Advance MVHR Shortlisted In CIBSE Awards

Leading British ventilation manufacturer Vent-Axia is delighted to announce that it has been shortlisted in the CIBSE Building Performance Awards 2017. Now in its 10th year, these prestigious awards recognise excellence in the built environment and the company's award-winning Sentinel Kinetic Advance has been named as a finalist in the 'Energy Efficient Product or Innovation of the Year' category. This follows on from a number of recent nominations for the innovative Advance, which has received accolades in the HVR Awards, the Electrical Industry Awards and Ireland's Energy Show 2016. Vent-Axia's Sentinel Kinetic Advance is a new breed of Mechanical Ventilation with Heat Recovery (MVHR) unit. With best in class performance and offering near silent, energy efficient and high pressure operation, it is perfect for care homes and student accommodation as well as New Build residential properties. 'Advance' extracts warm, moist air from 'wet' rooms through ducting which passes through the heat exchanger before being exhausted outside. Fresh incoming air is preheated via the integral heat exchanger which recovers over 93% of the heat energy that would otherwise be wasted



ENQUIRY 3

Not Just Harfa Floor With Osmo UK

Osmo UK, the eco-friendly wood and finishes expert, offers architects and interior designers with a unique looking and aesthetically pleasing wooden floor. Pre-finished with Osmo Polyx®-Oil, the Harfa flooring range from ESCO flooring is the ideal choice for anyone who is looking for a statement floor.

Harfa flooring is available in eight colours, including natural, natural white, double smoked black, smoked tobacco, smoked natural, washy grey, smoked white and stone grey. There is also the option to choose between 2 or 3 layer parquet and your desired wood style - elegance, superb, classic or original. Harfa Vintage is the so called used old version of the Harfa collection.

The boards have a special optic in square saw lines in trendy unique colour variations. The surface can be rough as well as smooth; the lines of the blade of the saw are irregular and give Harfa a vintage look. Harfa Vintage is also available in eight tones, including slate stone, cappuccino white, forest honey and dark chocolate.

www.osmouk.com

ENQUIRY 4



Carl F Groupco Customers Benefit From Ingenious Enhancements

Advancements to Ingenious door locks set to benefit Carl F Groupco customers are highlighted by the hardware supplier. The established distributor of window and door fittings added Ingenious products to its catalogue in 2015 and enhancements have been made to both the Professional and Duplex multipoint door lock ranges. Taking a proactive approach to respond to market feedback and fabricator needs, and with continuous investment in R&D, latest Ingenious developments which are spotlighted by Carl F Groupco include additional rollers added to the Professional and Duplex door locks for further compression. Depending on fabricator preference, the Ingenious door lock ranges are now available with either 2 or 4 rollers in addition to high security hook locking. In line with Ingenious' focus on providing easy-to-install solutions, Carl F Groupco advises that there are no preparatory changes required for any pre-existing users of the door lock when upgrading to the 4 roller version. www.carlfgroupco.co.uk



ENQUIRY 5

Evaporative Cooling App From Condair

Condair, formerly JS Humidifiers, has developed a new app that accurately determines how much energy could be saved by using in-duct exhaust air evaporative cooling and a heat recovery system, rather than just traditional compressor driven cooling.



Using worldwide weather data from Meteororm, the myCoolblue app calculates how much energy is needed annually to cool a building. Then, taking into account 10 years of historic

weather data from over 300 regions worldwide, the app projects how much cooling each month could be delivered using exhaust air evaporative cooling and how much would still need to be delivered using traditional mechanical cooling.

A chart showing the monthly breakdown in kWh between mechanical and evaporative cooling is presented, along with a diagram of the system configuration and the temperature course supply/exhaust chart. Project details and calculations can be saved to the cloud and accessed later. An email option also allows reports with all the project parameters to be emailed in a pdf format for future reference. Condair's myCoolblue app can be downloaded from the App Store for free and is available for iPad only. www.condair.co.uk

ENQUIRY 6

Pop Up Power Supplies® Offer Retractable Service Units Which Supply Electricity, Water And Air To Public Spaces

Ranging from historic sites, town squares, universities, market places, parks and sports stadiums, Pop Up Power Supplies® offer a range of practical and effective retractable service units which provide a safe, secure and silent outdoor power source. Due to their retractable nature, the units can be used in a variety of places that require subtlety and the ability to disappear when not required.

They offer possibilities for more varied uses, giving stadiums new life long after their planned functions. A series of standard products are available as well as bespoke units with recessed tops that can accommodate different paving. Pop Up Power Supplies® also supply electricity through In-Ground Units with flip top lids and Street Bollards in a variety of designs to suit the surroundings.

They launched their new range of Flip Lid Power Units at this year's Civils Expo, part of UK Construction Week 2016. Featuring a new and improved design, with a new hydraulic system to open the lid, a sturdier case, and a more practical arrangement for the power sockets and cables within the unit, the new In-Ground Unit from Pop Up Power Supplies® is an important development for the company. Pop Up Power Supplies® has worked with clients up and down the country, providing efficient, sympathetic utility solutions in busy public areas. www.popuppower.co.uk

ENQUIRY 7



Updated Gardens & Drives Brochure Gives Landscapers A New Secret Weapon

Updated and refreshed from top to bottom, Brett Landscaping, one of the UK's leading manufacturers of high quality aggregate and paving products, have launched their Garden & Drives 2017 aimed at supporting merchants and contractors selling into the homeowner audience. The brochure provides comprehensive guide to the stylish and innovative products and services available from Brett next year. The brochure provides clear and concise information as well as high quality imagery to show the Brett product range with new clarity. To help landscapers to decide on their preference of style for their projects, each product group in Gardens & Drives 2017 has been split into three colour-coded categories:



- Contemporary paving: Made up of products that offer crisp clean lines and stylish surfaces to create a truly modern aesthetic for your home.
- Traditional paving: Comprised of products that offer softer aged lines and riven surfaces designed to help recreate a more rustic appearance.
- Value paving: Requiring great paving on a stricter budget? This paving range performs every bit as well as the rest of our products, with slightly less accessories available.

Gardens & Drives 2017 also contains "A day in the life of a Brett Approved Installer" section, which illustrates just what a great resource these approved installers can be for your next landscaping project if you don't already have a contractor in mind. The brochure, along with the Brett Trade Guide is available from builder's merchants, as well as online at www.brett paving.co.uk/brochure/brochure-request

ENQUIRY 8

Medite Smartply Highly Commended In Energy Awards 2016



MEDITE SMARTPLY has been highly commended at the Sustainable Energy Awards 2016 in the large energy category. This award, in part, is a result of the MEDITE SMARTPLY Operation Excellence programme that began in 2014.

The programme initiatives consisted of product and process flow optimisation, variable speed drive monitoring, controls, lighting, ISO 50001 certification, electric transport, and a steam turbine generating onsite electricity driven by their own biomass steam boiler.

The company has also undertaken employee awareness initiatives including displaying energy targets in real time at operator stations, children's Energy Calendar competition and an Energy Fun Day. www.smartply.com

ENQUIRY 9

Are You Missing The Connection? Aico Releases New Information On Part 6 And Part 1 Fire Alarm System Integration



Launched in 2014 and immensely popular in the social housing sector, the Ei414 Fire/CO Alarm Interface from Aico provides a cost-effective, convenient means of interconnecting Aico Smoke and Carbon Monoxide (CO) Alarms to third party life safety systems such as Fire Panels, Telecare Devices and Sprinkler Systems. To help clarify the most popular connection options, Aico has introduced a new dedicated brochure, 'Are you Missing the Connection?' The new Aico brochure explains how the Ei414 works and provides an installation overview, showing just how simple it is to install the

Interface. To obtain a free digital or postal copy of Aico's 'Are you Missing the Connection?' Ei414 brochure, please register at www.aico.co.uk/publications www.aico.co.uk

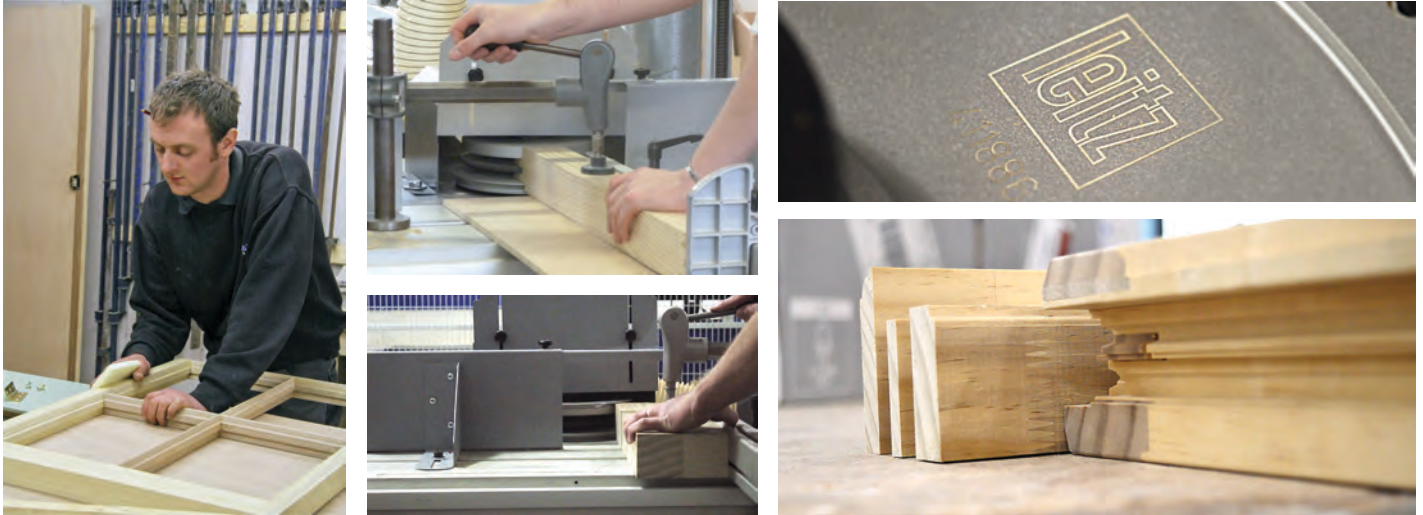
ENQUIRY 10

Helifix Dixie Piled Foundations For New Build Modular And Temporary Structures

A new brochure from Helifix gives details of how its versatile, high performance, Dixie micro-pile system can be used to provide reliable and economical structural support for new permanent and temporary buildings. A technically innovative proprietary system certified by the International Code Council (ICC), Helifix Dixie foundation piles are easy for engineers to specify, can be screwed into virtually any type of soil and facilitate rapid contract times with minimal disruption, noise or spoil removal. This new brochure includes installation details and technical specifications. It complements an existing brochure on using Helifix micro-piles in remedial applications for stabilising subsiding foundations and an animation illustrating how the system works, which is available at www.helifix.co.uk/videos. www.helifix.co.uk



ENQUIRY 11



Leitz Tooling Launches ThermoTech Window System Lite

Adding to its range of tooling solutions for A and A+ BFR energy rated timber window production, Leitz Tooling has launched the "Lite" version of its ThermoTech Window System. The current ThermoTech Window tooling system is hugely successful and working for many joinery and window manufacturing companies around the UK. Leitz has now added ThermoTech Lite – producing traditional-looking high performance timber windows – to the range.



As with their original ThermoTech Window System, ThermoTech Lite will be available with BFR (British Fenestration Rating Council) energy rated licences for most variations of timber window manufacture. With full and ongoing back-up and support from the company, Leitz's ThermoTech Window Systems are considered by its customers as one of the

fastest, easy to use, reassuring and profitable systems on the market:

"The fact that Leitz has already done the work with the BFR for energy rated window licences was a key factor in our decision to buy their tooling, and we're winning most of the work we quote for." TimberMaster, Rugby

"We make timber windows for contractors, developers, housing associations and home-owners, and the tooling system from Leitz means we now make them quicker and easier than ever before." T O'Malley Joinery Ltd, Lancashire

Leitz ThermoTech Lite Window System is a complete, compliant and scalable system for the manufacture of high quality timber windows by large manufacturers and small sized joinery companies alike, opening up new markets and business opportunities and responding to demand from manufacturers as well as architects and contractors.

Offering traditional aesthetics for the UK marketplace, the ThermoTech Lite system features Leitz's renowned durability. The system is available in multi-tool or dedicated sets for spindle moulders, tenoners, CNC routers and window machines. In addition to the ability to create thinner (60mm vs 68mm), more elegant box sashes, Leitz's ThermoTech Lite system also includes capacity for triple-glazed with the addition of simple tooling elements – no need to buy a complete new set of tooling. The features and benefits of the ThermoTech Lite Window System mean that all design U values of the timber windows are 1.4 or better, the designs are expandable for different hinges (including Sumo, Cotswold and Defender hinges), and the profiles on the system are easily changed, without needing to purchase extra tools.

Brian Maddox, Sales Manager for Leitz Tooling UK said, "We have removed the burden of design, tooling, set up and window simulation thermal testing for the energy performance rating; the only things we don't do is actually performance test the window or make it. Our ThermoTech Lite Window System gives the opportunity for much wider high quality manufacture of A and A+ rated thermal performance wood windows."

The system supports all variations to suit any type of manufacturer, with any type of specification, with flexibility. As a low cost, dedicated modular system, it is as accessible and as future-proof as possible, and includes all the support customers might need, including custom window design and the cost of simulation to BFR regulations to get the approved energy ratings.

As always, Leitz is focused on increased productivity, reduced downtime, noise, scrap, and improved quality and safety in tested tooling design. All tooling from Leitz is manufactured and safety tested to BS EN847 standards helping to ensure the welfare of customer employees.

For more information Leitz Tooling and ThermoTech Lite, visit www.leitz-tooling.co.uk or contact salesuk@leitz.org.

ENQUIRY 12



Portakabin Receives Second Award Commendation For One Of The UK's Most Complex Interim Healthcare Schemes

Portakabin, the UK's leading supplier of modular buildings, has received a second award commendation for its delivery of a highly complex ward and theatre building at Royal Stoke University Hospital. The 4,200sqm facility was completed in less than four months to help meet the increasing demand for orthopaedic services.

In recognition of the success of the project, Portakabin has now been highly commended at the Offsite Awards in the Public Sector Project of the Year category. More than 200 industry leaders gathered to celebrate off-site construction at the NEC in Birmingham. With over 160 exemplary entries, these annual awards recognise pioneering and landmark projects, and manufacturing excellence.

Portakabin was also highly commended for the Constructing Excellence West Midlands Project of the Year Award.

The highly serviced £13.5 million building at Royal Stoke accommodates clean air theatres for orthopaedic procedures, a recovery room, ward bays and single ensuite rooms. A video of the building can be viewed at www.portakabin.co.uk/royal-stoke-hospital-details.html.

Commenting on the latest award commendation, Robert Snook, Director and General Manager at Portakabin said, "This tremendous accolade is a real credit to our whole team and to such an enlightened client. It is also hugely significant that an interim building solution can achieve such prestigious, national recognition. We are delighted that the quality of the building and our service delivery at Royal Stoke has been recognised and that the project is helping to change perceptions of just what can be realised with modular construction."

"The success of this project allowed the Trust to have its new orthopaedics unit up and running much more quickly, to meet the increasing demand for services and to enhance patients' experience with a high quality, purpose-designed healthcare facility. It was extremely challenging in terms of scale, logistics, access, and the very close proximity of existing wards which had to remain fully operational throughout."

The building was constructed to permanent standards and will be in use for five years, giving the Trust much greater flexibility as the facilities can be removed or adapted according to local needs. The structure was delivered as 124 modules which were installed in a carefully planned operation complete with wall finishes, internal partitioning, mechanical and electrical services and flooring already in place. This approach further reduced work and disruption to patient care on this busy hospital site.

Modular construction is a fast and flexible way for healthcare providers to expand or relocate services, particularly on constrained sites. The hiring of buildings allows projects to be funded cost effectively from revenue rather than capital budget streams, giving NHS trusts the flexibility to meet changing local needs.

For further information about interim buildings for healthcare projects, visit www.portakabin.co.uk, email information@portakabin.co.uk or call 0845 401 0010.

ENQUIRY 13

Waterproofing Simplified With Remmers Multi-Tight 2K

Multi-Tight 2K is a new, flexible, mineral based waterproofing product which has all the performance properties of older technology polymer-modified thick bitumen emulsions, whilst being “bitumen free”.



Using unique rubber granulate filler technology Multi-Tight 2K has a crack-bridging capacity which is five times more effective than standard flexible mineral-based waterproofing systems. The versatility of the product allows it to be used to waterproof below ground externally and internally offering excellent resistance to ground or water

pressure as well as frost and salts. It is very quick and easy to apply by trowel or spray application, has fantastic levels of adhesion to most substrates including old bitumen and dries very quickly in less than 18 hours.

Multi-Tight 2K is UV stable but can also be over-coated with Remmers Concrete Acrylic in any colour allowing Clients to aesthetically blend in areas of waterproofing on building facades. www.remmers.co.uk

ENQUIRY 14

Sika Sarnafil Launches BRE Certified Thermal Details

In a move to help specifiers make buildings more sustainable, Sika Sarnafil is proud to announce the launch of its BRE Certified Thermal Details, available to download via its online Sustainability Hub (www.sarnafil.co.uk/hub) and from the Certified Thermal



Details and Products scheme website (www.bre.co.uk/certifiedthermalproducts). The Certified Thermal Details and Products scheme gives thermal junction details an independent third party assessment, assuring users of the ‘as designed’ thermal performance. Easily accessible and straightforward to use, all Sika Sarnafil’s thermal details have been redrawn and modernised with values that tie in with the requirements for Part L.

<http://gbr.sarnafil.sika.com>. For further information on the Certified Thermal Details and Products scheme visit www.bre.co.uk/certifiedthermalproducts

ENQUIRY 15

Rinnai Is Official Event Sponsor Of Fifa Club World Cup 2016

Rinnai, designer and manufacturer of the A-rated energy efficient Infinity range of continuous flow gas fired water heaters, has announced its official event sponsorship of the 2016 FIFA Club World Cup tournament.

The event, which is FIFA’s largest annual event, taking place in Yokohama, Suita City and Osaka, Japan December 2016 is expected to attract global millions of TV viewers.

Rinnai’s official event sponsorship provides them with rights locally within Japan and will see its logo reproduced on banners around the perimeter of the pitch at the FIFA Club World Cup 2016 matches as well as on signage around the participating stadia. The Rinnai logo will also be imprinted on all official marketing material for the tournament and on the FIFA website.



FIFA Club World Cup brings together champion clubs from each of the six continental confederations. The match to decide the world’s top club team is considered the pinnacle event of global competition in football (soccer), where the level of performance exceeds even that of national team players. Six clubs - each a continental champion - and the national league champion from the host country play off in this tournament.

The tournament is a fitting platform for Rinnai’s patronage. Rinnai is a global leader in gas appliance manufacturing, in the UK it is the acknowledged as a leader in the development of commercial and domestic hot water heaters and delivery. For more information on the RINNAI product range visit www.rinnaiuk.com

ENQUIRY 16

WWW.NITTAN.CO.UK

Article By: Nittan Europe Ltd
Title: The Vape of Things to Come for Smoke Detectors
Author: Lee James, General Manager - Sales and Marketing



A breath of fresh air for the UK

Since 1st July 2007, cigarette smoke has been absent from public buildings in the UK but, according to reports, there is now a new kid on the block for smokers – vaping. Although many countries are expected to introduce legislation regarding the use of e-cigarettes in 2017, there are no current guidelines on where they can and cannot be used.

Many organisations however, such as public transport, hotels and pubs do not allow vaping on the premises due to reported problems such as fires caused by charging equipment and smoke detectors being activated by the exhalation from the vapes or e-cigarettes themselves.



One such company to experience these issues is lively pub and music venue, The Frog & Frigate in Southampton. Although vaping is allowed at The Frog & Frigate, venue owner Derek Gardener says that this has not been without its problems – in particular, incidences where vaping

has activated the pub’s smoke detectors leading to disruption of the running of the venue. Vapes feature a cartridge containing nicotine in a solution of either propylene glycol or glycerin and water. When you suck on the device as you would a normal cigarette, a sensor detects the air flow and starts a process to heat the liquid inside the cartridge so that it evaporates to form water vapour.

Unlike e-cigarettes which most often resemble traditional cigarettes, vapes come in all shapes and sizes and thousands of flavor combinations from blueberry to marshmallow to single malt scotch! In an enclosed venue where there are a number of people vaping, this can have the same effect as steam on a smoke detector, leading to false alarms.

Smoke without fire

In the case of The Frog & Frigate, smoke detector false alarms caused by vaping were becoming a considerable problem in the running of the pub.

Generally speaking, a false alarm - i.e. an alarm which has been generated by the fire detection system but not in response to an actual fire - is caused by the Infra Red scattered light technology in the detector being unable to distinguish between smoke and larger size particles like steam and dust.

Despite the false alarm issues at The Frog & Frigate, Derek was reluctant to ban vaping in the pub, but was recommended a solution by installers Fire and Safety Testing in the form of ‘dual optical’ detectors. Unlike industry standard single optical sensor smoke detectors, these dual detectors use both the ‘traditional’ Infra-Red light to ‘view’ the particles entering the alarm chamber plus blue LED light technology.

By calculating the ratio of these light sources, which operate at different wavelengths, the detector can determine the particle size and thus distinguish between smoke and non-combustion products. As steam and dust are much larger particles than smoke, the detector won’t false alarm but will still remain sensitive to combustion (fire) products in order to generate an alarm. This technology has been employed in Nittan’s Evolution EV-DP smoke detectors.

Since the installation of Nittan’s EV-DP at The Frog & Frigate six months ago, Derek is happy to report that there hasn’t been a single false alarm in the venue meaning that his customers are kept happy, entertained and safe. Fire detector and alarm systems are absolutely essential but no one should have to put up with false alarms. If you have a fire detection system that is causing disruption as a result of false alarms, take action. False alarms, especially from steam, don’t have to be a headache!

For sales information, please contact Nittan on 01483 769 555 or by email at sales@nittan.co.uk, or visit the web site www.nittan.co.uk.

Maximum Protection, Minimum Effort



KeeLine® Horizontal Life Line provides fall arrest/restraint protection where guardrails are not suitable or when a virtually invisible solution is required. The system can be fitted to most standard roof types including membrane, standing seam, metal profile and composite panel roofs. KeeLine® provides users with complete and continual 'handsfree' protection throughout the system and incorporates an Inline Shock Absorber to minimise the loads to an acceptable level for both the user and structure in the event of a fall.

- Suitable for use on multiple roof types
- Conforms to EN 795:2012
- Allows spans up to 12m and 3 users
- Designed for horizontal or overhead applications

Fragile Roof Access Solutions / Mobile Man Anchor / Demarcation / Rooftop Walkways /
Mobile Valley Frame / Kee Anchor Beam / Ladder Restraints / Self Closing Gate / Guardrails



SAFESITE LIMITED



Footballer's Hotel Chooses Vicaima For Winning Team

A project made possible by the partnership of charismatic football player, Cristiano Ronaldo and the Pestana hotels Group has inspired the transformation of the Hotel Pestana CR7 in Lisboa, Lisbon. The renovation of this historic building has led to the selection of Vicaima door products for their outstanding performance and design appeal.

Vicaima, a recognized and international player in the design and production of solutions for the hotel and leisure sector, was selected to equip the Hotel Pestana CR7 Lisboa, Lisbon, Portugal. This involved the complete renovation of an historical building. The boutique hotel, inspired by the charismatic footballer, is distinguished by the sophisticated décor for which the carbon grey colour of the Dekordor HD Colours Vicaima range has been selected, creating striking and harmonious spaces in the lifestyle concept of the project.

Among the many technical and integrated solutions the project demanded, were the installation of Vicaima's Portaro system, which provides a completely matching door and frame and were used for the entrance to rooms. These were required to have high levels of technical performance, with fire resistance, up to 30 minutes, and acoustic insulation, up to 40 decibels. In addition the project also demanded integrated communicating doors between suites and sliding doors in various locations, thus

enhancing the maximum optimization of the space. The emergency exits and communal areas were also equipped with Portaro® 30 minutes fire certified products.

Dekordor HD in Carbon Grey is just one of 22 attractive and contemporary laminate colour options from this exciting and recently introduced Vicaima range. With its easy to maintain and durable surface the product finish is ideally suited to hotels, student accommodation, medical, educational and commercial applications.

www.vicaima.com

ENQUIRY 18

Wrightstyle Completes Iconic Tower Bridge Project



Wrightstyle, the leading UK advanced glazing systems company, has completed a transformational project on one of London's most iconic structures. The company has fabricated, supplied and installed glazed systems in arches in Bridgemaster's House, part of Tower Bridge, which is being transformed into office space, bar and restaurant, with spectacular views of the world-famous bridge and the Thames.

"Our work was on four arches under the Tower Bridge approach, with the bridge's structural girders coming down in front of a couple of the arches – making access to fit the windows extremely challenging!" said Lee Coates, Wrightstyle's technical director. Wrightstyle systems are being used to protect a new walkway and the entrance to the original Victorian building – working

to strict heritage and aesthetic requirements as well as within constraints posed by the bridge carriageway above. Bridgemaster's House, adjacent to the original engine rooms that powered the bridge's lifting mechanism, will provide enhanced visitor facilities at one of the entrances to the bridge, and seamless integration with the wider Butler's Wharf area.

Although the 35 square metre project is relatively small, each glazed screen had to be fabricated to stringent heritage requirements, as well as meeting the required 60/60 fire rating. The design process made use of 3D laser scanning to create initial 3D models. Underlining the challenge, one of the main bridge struts penetrates through an arch, and two of the glazed screens also had to incorporate pipe penetrations – part of the original steam pipe work for the bridge mechanism. Because of the multiple complexities involved, each frame had to then be made in three sections, using specialised steel bending to create the arched windows. www.wrightstyle.co.uk

ENQUIRY 19



Crittall Proves Popular At Poplar

Crittall steel windows provided the original fenestration in the art deco Poplar public baths when they were built in 1934 in London's East End. And weather-tight, energy efficient Crittall products were the ideal replacement when the Grade II listed building was refurbished and transformed into a state-of-the-art leisure centre that was re-opened this September.

The public building served the local population until it closed in 1986 and the fabric declined to the extent that it featured on English Heritage's Buildings at Risk register. But salvation came in 2012 when a four year transformation project commenced on behalf of the London Borough of Tower Hamlets. Brixton-based architects Pringle Richards Sharratt (PRS) designed a masterplan to restore and refurbish the most iconic parts of the original structure combined with some partial demolition and new build.

The design was undertaken in close co-operation with English Heritage and local conservation officers and it was in this respect that replacing the steel windows became an important consideration. "The original windows were Crittalls and we had the 1930's architectural drawings to refer to," says Malcolm MaGregor, director of PRS Architects. "We were looking to make sure that the building, both the existing and the new build additions, maintained a uniform feel in keeping with the conservation issues.

A mix of Crittall Corporate W20 fixed lights with screwed in vents, Corporate C2000 fixed lights and cold form doors were installed; more than 170 units in total. The slim profiles of the steel windows make a major contribution to the light and airy appearance of the sports hall with its arrangement of hyperbolic concrete arches. Equally impressive are the two-storey high entrance door and window arrangement that are such a strong feature of the Egyptian style front elevation that faces the East India Dock Road.

www.crittall-windows.co.uk

ENQUIRY 20

Brainwashing, Destruction Testing And Nano Technology: After 12 Years, A Newly Refined TSL

By Jens Van Eyseren of Roto

Roto have just rolled out a new version of their TSL. Amazingly, it is now 12 years since the original came along and revolutionised security for Open-Out windows with its Twin-Cam Security locking. The public at large might not really have been aware of it, but it certainly made life a lot easier for the fabricators who were smart enough to adopt it from the start. The marketing at the time used the word “revolutionary” – and for once it wasn't hype. This new locking system, which could be fitted to a window as quickly and easily as an espagnolette, really did provide shootbolt levels of security.

Brainwashed

And that's what Roto were up against at the time: shootbolts. It seemed like every window sales rep in the country had been brainwashed to tell members of the public that their window would only be any good if it was fitted with shootbolts. There was some reasoning behind this. When the BS 7950 standard (equivalent to EN Resistance Class 2) was introduced in the UK, standard espagnolettes with two or three locking points simply weren't strong enough to withstand the mechanical loadings in the test.



Three burly men

We're talking about forces of 3 kN trying to push the window open. That's like angling the window face down and having the weight of three burly men standing on it. No wonder some of those very old basic espags just gave way under that load. It would have been easier for Roto to carry on selling their shootbolt system. But they decided to take a bit of a calculated risk and put out something that was both familiar (you fit it just like you do an espag)

and yet utterly new at the same time. When Roto launched the TSL, I was involved on the technical side. We invited fabricators to make a window and bring it along to be tested, so they could witness for themselves what this new product was capable of doing. A lot of people really did have to see it to believe it. Once they saw, they believed.

Done up with a zip

I tend to think of it like this: a window with a basic espag is like a piece of clothing fastened with buttons. By contrast, when you lock a window with TSL, it's more like you've done it up with a zip fastener: it's an awful lot harder to prise it apart. On the larger sizes there are 8 cams which, when you think about it, is a good number of locking points on the side of a window. But what really provides the advantage is that Twin-Cam action: each pair of cams closing together into a common striker creates a very strong locking point. We saw it in the tests. Windows would breeze through the standard 3 kN loadings, even though we were loading each locking point three times – with the additional 1 kN being applied in three different directions.

Tested to destruction

After a dozen such loadings, most people wanted us to ramp it up and see how well their window could withstand being tested to destruction.

We pushed the rig to the limit. It's fair to say most windows could not be broken open, even with loadings way beyond those defined in the standard. Sometimes we would succeed in ripping out the locking point in the top or bottom corner if we concentrated on it. All of this was done using hydraulic equipment to impart forces way beyond what anyone would be able to apply with a crowbar.

So simple, it's obvious

It's one of those ideas that is so simple, it seems obvious when you're used to seeing it. But that's the beauty of so many great inventions: their apparent simplicity. Roto have come up with other revolutionary products of course – after all, they introduced the first Tilt&Turn system. Now, for Open-Out, there is the TSH 30, which can provide enhanced security on three sides of the sash of a larger window.

12 years on, still the most effective

But when it comes to a regular side-hung or top-hung casement of the type fitted in many homes, the most straightforward and reliable way to give it enhanced security status is to fit it



with a TSL. 12 years on, it remains the most straightforward and effective solution. It's just a shame so many new build properties are STILL being constructed and fitted with basic espags. If only the customers knew how easily – and at very low cost – their windows could have been made so much more resistant to intruders.

No point trying to reinvent the wheel

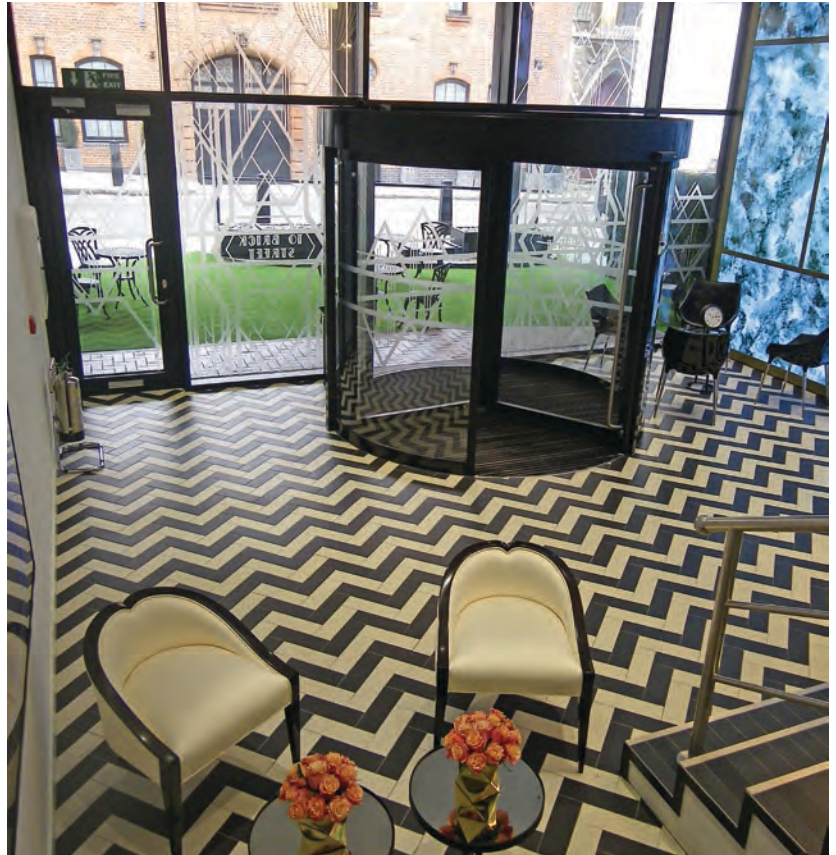
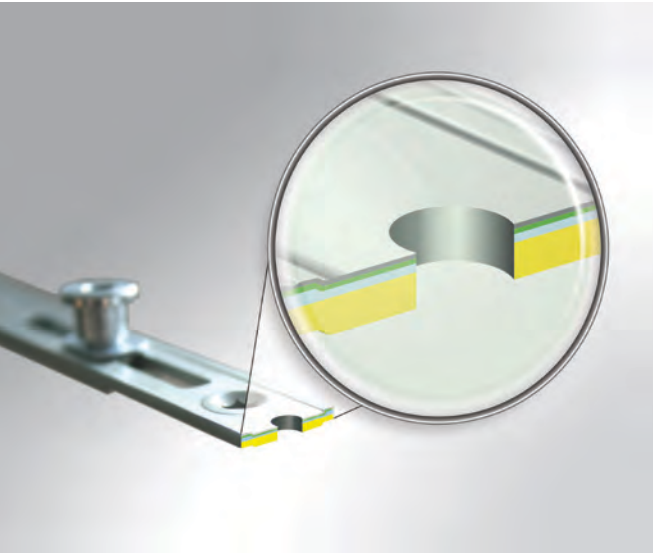
You might be asking, “What's new about this latest TSL?” There's no point trying to reinvent the wheel, but you can improve the way it is put together using the best materials and technology available at the time. That's what Roto have opted to do. The new TSL faceplate now comes into line with that of the Roto NT and other modular hardware systems in the manufacturer's range. As well as being designed for maximum stability, the new faceplates have a 'premium' look and feel to them.

Nano technology

The faceplate is now coated with RotoSil Nano 7. This latest formulation uses nano technology to make the surface 'self-healing'. It is therefore more resistant to scratches as well as corrosion. As a fabricator, you get the same advantages: a range of sizes to suit sash rebates from 305mm up to 1600mm; two different cam heights and backsets depending on profile; fine adjustment in the cams to ensure a firm weather seal; a range of profile-related strikers.

The TSL range is designed to give you maximum flexibility with the lowest possible number of different components. Are there still people who think you have to have a shootbolt? Probably. If you've not used TSL before, it's still not too late to catch on – because there are many years of life left in this little stalwart yet. <http://www.tsl-by-roto.eu/>

ENQUIRY 21



Tormax Opens On Mayfair

A tastefully opulent working environment, the Office Space in Town Mayfair serviced offices at 10 Brick Street welcomes staff and visitors into the impressive central atrium with a semi-automatic TORMAX 3-wing revolving door that requires just a gently push from the user to initiate rotation. TORMAX worked with JPJ Installations Ltd to deliver this sustainable solution, successfully combining easy access with reduced energy consumption. Finished with dramatic black profile, the revolving entrance perfectly enhances the classically understated interior décor.

Taking its design cues from the roaring Twenties, 10 Brick Street combines typical art deco hues with striking geometric patterns in black and white. With a selection of boutique offices to suit between five to eighteen people, clients benefit from a range of elite services including first-class reception, back-office and bespoke business support not to mention fibre optic internet and integrated phone system. Making the space feel more like a 5-star hotel than a serviced office in central London, the impressive TORMAX revolving entrance is a key feature of the airy atrium, reflecting the effortless glamour of the era.

The 3-wing entrance system is powered by the technologically advanced TORMAX 5201 revolving door operator. A world-class solution, reliability is assured in the long-term thanks to a powerful high torque motor and impeccable design credentials that minimise maintenance requirements. In addition to the energy saving, semi-automatic operation, the revolving door at 10 Brick Street also effectively reduces the heat that would be lost from the atrium with a standard door, by providing a barrier to the exterior.

If an emergency leads to power failure, the TORMAX 5201 cleverly utilises energy generated by the door being spun as people hurry to exit the building, to operate a brake mechanism. This simple yet effective mechanism combines with adaptable external safety devices and the optional break-out function, to deliver a safety rating that is second to none.

www.tormax.co.uk

ENQUIRY 22



Working In The Light

Designed by DarntonB3 architects, this 23,000 sqm facility is the new HQ for Airedale International Air Conditioning in Leeds. The production facility is a stunning example of the way in which the Kalwall® translucent daylighting system has been used in combination with Kalwall panel unit windows. It includes a state-of-the-art test centre and training school regarded as a worldwide hub of excellence for air-conditioning. The dramatic linear simplicity of the design projects real impact on the entrance façade while the architects have configured the levels of the site so that the main mass is concealed from public view and all aspects of manufacturing are kept on a single level. Sustainability is also fundamental to Airedale's core strategy which

has been translated into a BREEAM rating of 'Very Good' for the building.

Unlike conventional glazing, highly insulating Kalwall eliminates shadows and glare and the stark contrasts of light and shade. The system also enhances simplicity by eliminating the need for blinds, curtains or solar control. Even on cloudy days, the building is bathed with natural diffused daylight which means less artificial lighting and therefore reduced costs. Apart from being specified for all types of new build, Kalwall is increasingly used for the refurbishment of cladding or rooflights on aged buildings. www.structura-uk.com/kalwall

ENQUIRY 23

Crittall Helps Liverpool Landmark Hotel

Liverpool dockside's newest luxury hotel has brought 21st century chic to a traditional Victorian maritime setting and Crittall Windows make an important contribution to this impressive transformation.

The Titanic Hotel is part of the redevelopment of the historic Stanley Dock complex of warehouses. The building was badly damaged during a World War Two bombing raid and lay derelict for many years.

Fast forward to 2010 when Stanley Dock Properties Ltd engaged Dublin-based Darmody Architects to draw up a masterplan for the entire site.

Working closely with Liverpool City Council planners the architects conceived an ambitious regeneration plan, phase I of which was the transformation of the old North Warehouse into the 153-bedroom hotel with the adjacent Rum Warehouse – a building of 1950s vintage – converted into an exhibition space.

Darmody's conversion has retained many of the original brick and iron features in the spacious North Warehouse so as to reflect the buildings, and the overall sites, industrial maritime heritage. This is where the specification of Crittall's Corporate W20 windows designed to fill existing bowed-top openings, fitted the bill precisely.

The £36million 4-star Titanic Hotel project has maximised the warehouse's generous dimensions. Bedrooms measure 55 square metres on average, around twice the size of a standard hotel room, earning the building, in the words of one reviewer, its description as 'a boutique hotel of Titanic proportions.'

The theme is also emphasised by the fact that, on entering the hotel, visitors can ascend a faithful replica of the ill-fated RMS Titanic's grand staircase. Through their attractive Crittall windows, with their slim profile maximising the natural daylight entering the rooms, guests are also treated to magnificent views across Stanley Dock to the Tobacco Warehouse opposite and on to the Mersey Estuary.

www.crittall-windows.co.uk

ENQUIRY 24





Global Investment Firm Benefits From Stylish Glazed Wall System

Finished to high specification throughout, the newly refurbished London head office of Winton Capital Management benefits from two fully automatic, glass moveable wall, installed by partitioning experts, Style. Positioned to segment a busy open-plan area, the walls allow private meeting rooms to be quickly created by just pressing a button. Style recommended the DORMA Moveo double-glazed solution as a high-end operable wall with exceptional 50dB acoustics, ensuring a good defence against external noise.

Winton Capital Management employs more than 450 people in offices around the globe and was the third organisation in the UK to sign the Low Carbon Workplace Charter with Low Carbon Workplace Ltd. This entails an ongoing commitment to minimise carbon emissions while occupying the Hammersmith premises. Style was tasked with installing a combination of moveable walls that would allow a large open-plan area to be divided into two functional meeting spaces. Although only spanning relatively narrow areas, fully automatic partitioning walls were recommended, ensuring the meeting rooms can be created within a matter of moments, whenever required. Supporting Winton's commitment to low carbon emissions, the DORMA Moveo moveable wall holds an environmental product declaration (EPD) in accordance with ISO 14025 and EN 15804, making it a highly sustainable system, as well as being stylish and practical too. www.style-partitions.co.uk

ENQUIRY 25

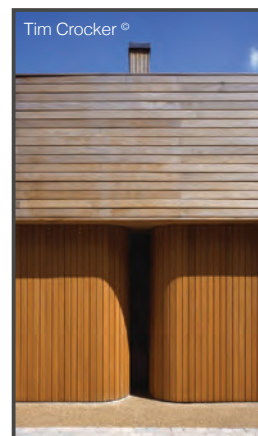
ENQUIRY 26

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ENQUIRY 27



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Pendock Bends It With LST Radiator Guards

British encasement specialist, Pendock has been involved with important upgrades within the Whipps Cross University Hospital in Waltham Forest, London, which is affiliated with the prestigious and world-famous Barts Health NHS Trust.

Today it is famous for being the birthplace of former footballer and fashion icon, David Beckham and for having one of the largest and busiest A&E departments in the UK plus it was the first to open a hyperbaric unit. But, as with all older buildings and the advent of modern technology, refurbishment becomes necessary at Whipps Cross Hospital, the trust undertook a mock CQC audit which immediately highlighted a number of uncovered

and very hot radiators as well as piping – obviously a burns risk to the elderly and infirm. The project management team, WT Partnership, employed DAVCO Construction Co Ltd. to install 250 radiator low surface temperature guards, plus some 300 meters of boxing to cover the exposed pipework. Pendock Ultima and Ultima Plus type radiator covers were specified, being that they afford extra safety with their ‘bull-nose’/rounded corners.

All Pendock guards can be fitted with a welded, ligature resistant mesh, which sits behind the radiator grille, if required. Additionally, the Ultima and Ultima Plus ranges of guards feature an antibacterial coating as standard. At the Whipps Cross University Hospital, both the guards and pipe boxing have been specified in white, although there is a wide range of colour options available to suit varying applications. www.pendock.co.uk

ENQUIRY 29

New Brick Tiles With Vintage Appeal From Craven Dunnill



The brick-style ceramic tile phenomenon has gained popularity during 2016. Craven Dunnill has introduced Vintage Brick, a new collection of 280 x 70mm tiles available in a choice of four mixed earthy tones. Featuring rounded corners, irregular edges and a distinctly aged and textured face, the



Vintage Brick tiles have a comfortable, worn appearance and are suited to both walls and floors. Despite these tiles resembling favourite, old bricks, saved from a previous life, Vintage Brick is made in porcelain, which is robust, durable and practical to maintain with a quick wipe clean. Craven Dunnill is a distributor and retailer of fine ceramic wall and floor tiles. Winner of 19 TTA (The Tile Association) awards over the past 11 years, including Excellence in Distribution and Floor Tile of the Year 2016, Craven Dunnill offers an unparalleled product range and level of service to customers. Vintage Brick range is part of Craven Dunnill’s extensive Renaissance Collection of floor and wall tiles. www.cravendunnill.co.uk

ENQUIRY 30

C-Bonded – New Technology From Duravit

C-bonded is a new technical solution developed by Duravit for the bathroom wash basin and vanity unit. Manufactured with millimetre precision, the ceramic of the washbasin is fitted to the furniture, with both materials appearing to bond seamlessly as a single unit. This completely new look produces an exceptionally sleek washing area. The "c-bonded" solution not only looks and feels impressive, DuraCeram®, the patented special ceramic that actually makes this precision and moulding possible, is also particularly wear-resistant. The smooth, seamless surfaces of the washbasins are quick and easy to clean and also incorporate generous storage space. C-bonded solutions are available with the Darling New ceramic series and L Cube furniture. For stockists contact: 0845 500 7787 info@uk.duravit.com www.duravit.co.uk



ENQUIRY 31

Exciting Year Ahead From Stelrad



2016 was an exciting year for Stelrad, the leading radiator manufacturer in the UK with new products and product range extensions ensuring that it offers the widest range of quality radiators for the UK and Irish markets. 2017 looks like being even better,

with enough highlights to keep even the most demanding heating specifiers and installers happy. With further improvements in the National Distribution Centre ensuring even higher capacity and even better delivery statistics, 2017 looks like being a stunning year to work ever closer with Stelrad!

www.stelrad.com

ENQUIRY 32

Aquatiere Launches New Website With A Special Page For Architects

Aquatiere is a supplier of domestic and commercial water filters and water treatment units. Aquatiere blends its own patented filter media with traditional filter medias to produce the best possible filtered water in the UK. Aquatiere's redeveloped website includes a page tailored for architects where a hand picked selection of products for architect specifications is displayed.

To make specification as easy as possible, content is arranged into a specific format following architectural advice. The product image is followed by concise text about the products and their features together with installation diagrams and specifications. Then, so that you can easily add the content to your own specifications, all the product information is available for download in PDF or MS word format for easy attachment or copy and paste into your document. www.aquatiere.co.uk

ENQUIRY 33





Calming Sculptural Interior For One Stop Doctors



Armourcoat's 3D Sculptural wall has been specified for innovative healthcare practitioners One Stop Doctors at their new £15 million clinic in Hemel Hempstead by luxury interiors specialists Goddard Littlefair. The client design brief was to create a high-end service environment that communicated the calm, soothing and welcoming feel of a patient-centric experience.

Bespoke furniture, a Goddard Littlefair design signature element, is used throughout in a range of high-end materials, including velvet, leather and suede in a spectrum of browns, slates, taupes, blues, purples and greys. To complement this, a feature wall of Armourcoat Sculptural 'Flow Wave' provides the backdrop to the clinic's stunning reception space. Lighting was an important part of the mix, creating features with natural and artificial light. Reflected and diffuse light create moments of drama and art throughout the interior.

Armourcoat Sculptural creates seamless wall surfaces with impactful designs and cast relief. Each design is created from cast GRG (Glass-fibre Reinforced Gypsum) panels, CAD generated to enable a continuous pattern or unique decorative effect. The state-of-the-art centre is the first of eight planned clinics to be located around the M25 corridor area.

'We were not looking for the usual clinical healthcare design', One Stop Doctors CEO Ella Tracey commented, 'but wanted a designer who could share our vision for creating an ambience that was relaxed, reassuring and tranquil, very comfortable and also aesthetically beautiful. Staff, visitors and patients alike are so impressed with the elegance of the design and the attention to detail, but also appreciate the feeling of warmth and comfort that it creates.'

www.armourcoat.com

ENQUIRY 34



Reducing Noise In The First Welsh Passivhaus School

The Burry Port Community School is the first Passivhaus School in Wales. In a design collaboration between Carmarthenshire County Council and Architype architects, this ground-breaking project unites the town's infant and junior schools, accommodating 210 pupils and a 30-space nursery class. Its aesthetically pleasing, comfortable and noise reduced environment is also a showcase for the use of Troldekt acoustic panels.

The original school building has been refurbished, while the extended block accommodates four new classrooms, as well as two further teaching spaces, staff and meeting room facilities. Sitting between the new and old buildings, a dynamic multi-use 'pod' offers group recreation and performance space, making an important statement about Architype's commitment to sustainability. The choice of Passivhaus, lies

with Carmarthenshire's ongoing commitment towards long-term sustainability, with the standard providing the most rigorous energy certification in Europe. Based on simple, robust principles, this depends on high quality design and thorough construction with a focus on continuous airtightness, insulation, and solar gain to deliver exceptionally low energy performance and high internal comfort and dramatically reduced energy costs.

A major contribution to the pleasant environment was the choice of Danish manufactured Troldekt acoustic ceiling panels, especially in the classrooms and potentially noisy open spaces. Specified throughout the UK and Europe, the benefits of the 100% natural wood fibres panels include high sound absorption, high durability, natural breathability, low cost life cycle performance and sustainability documented by Cradle to Cradle certification at silver level. www.troldekt.co.uk

ENQUIRY 35

Pendock Facilitates Calm Environment At Ipswich Oncology Day Unit

Pendock, the UK's leading encasement specialist, has supplied 14 column casings for the refurbishment of the Oncology Day Unit at Ipswich Hospital. This is on the back of a successful scheme undertaken at Ashford Hospital, for whom the British company manufactured similar installations.

For the oncology unit refurbishment, though, a variety of column shapes have been specified; some have been tailored to fit around partition walls, while one even finishes on a top of a desk in this attractive and unusual re-development. Happily creating bespoke column casings is a routine exercise for Pendock, being that the company provides a full site survey, design and installation package – if needed – to ensure projects are well managed from start to finish.

Kier was the main contractor for the Ipswich day unit refurbishment and it specified a selection of semi-circular and quadrant form enclosures for the scheme. The laminated column casings are a robust 10mm in thickness and were fully preformed and trial assembled at Pendock's factory in Telford to ensure accuracy.

For both shapes, there are some flat panels supplied, with aluminium top hat male and female joints provided to assist with straightforward assembly on site.

The inner top and bottom collars were supplied in a striking diamond black laminate finish to complement the gleaming white surfaces of the enclosures, adding to the clean, calming and contemporary style, which the project team from KLH Architects was striving for. Furthermore, as well as being respected for the bespoke service it provides, Pendock is also able to provide a wide range of off-the-shelf products to ensure that installers can access products on a next day basis if required.

www.pendock.co.uk

ENQUIRY 36



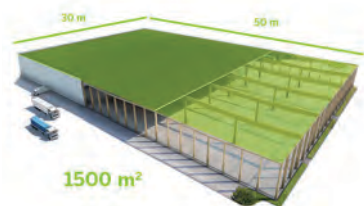


Fast Construction With Prefabricated Wood Elements

Using wood elements allows faster building turnaround. This leads to more profitable construction projects and shorter investment payback times. The pace of construction is kept at the desired level, because prefabrication reduces some of the most common risks at construction sites.

Utilizing prefabricated wood elements is a surprisingly fast option for on-site construction. For example, up to 1500 m² of Kerto® LVL (Laminated Veneer Lumber) roof panels can be assembled within a single working day.

“An example of rapid building is in the construction of the headquarters of the Diesel-Benelux Company in Amsterdam. An extremely tight building schedule of only nine months resulted in choosing Kerto LVL roof panels – under which the rest of the construction work could be finished in time,” project subcontractor in charge of the wood construction, Lambert van den Bosch from Heko Spanten, mentions.



Clever on-site weather protection with no additional costs

One of the most important construction phases is to get the on-site protection done quickly to eliminate weather-related risks. Today, the alternatives for on-site

weather protection include applying fast construction methods, such as prefabrication or building under a tent.

Prefabricated wood elements shield the building site beneath, providing protection that's superior to temporary options – especially when it comes to snow loads and heavy winds.

“For example, erecting Kerto LVL roof elements used at the logistic centre of DB Schenker, Finland provided a roof over the entire building in just 15 days. This is the same amount of time that erecting a temporary tent would have required. Using prefabricated roof panels ensured that the rest of the work could be completed in a protected environment and without additional costs for temporary protection,” says Matti Kuittinen, architect and researcher from Aalto University.

Minimizing the risk of accidents

When the construction work takes place in controlled indoor conditions at the prefabrication plant, there is less risk of accidents and consequent delays at the building site. This is because some of the dangerous on-site phases are no longer needed.

“Assembling ready-made wood elements can replace the potentially more dangerous process of having to build a roof from beams, panels and bitumen at the heights of an unfinished building. On-site accidents are of course not frequent, but every single one of them should be avoided,” van den Bosch concludes.

Prefabrication “pays off” at the construction site

According to construction professionals interviewed by McGraw-Hill Construction, nearly 70% of projects that used prefabricated elements had shorter schedules and 65% had decreased budgets¹. In addition to faster building projects leading to faster revenue, there is also other benefits that become apparent at the construction site.

“Utilizing prefabricated wood elements can help in significantly reducing other inconveniences such as unloading building materials in the neighbourhood, as well as the amount of on-site waste and the need to transport it,” Kuittinen adds.

Quick facts

- Prefabrication pays off: 70% of projects had shorter schedules and 65% decreased budgets.
- Up to 1500 m² of Kerto® LVL roof panels can be assembled in 1 working day.
- At the logistic centre of DB Schenker, Finland, Kerto LVL roof elements provided a roof over the building in just 15 days.
- Kerto LVL roof panels helped the Diesel-Benelux Company to keep to their tight building schedule of 9 months.

¹ McGraw Hill Construction, "Prefabrication and Modularization - Increasing Productivity in the Construction Industry," McGraw Hill Construction, Bedford, 2011

Learn more about how using prefabricated elements can improve the speed at the construction site: www.metsawood.com/publications

ENQUIRY 37



WoodEx® Recognised As A Registered Trademark

James Latham has announced that WoodEx®, its premium quality, engineered hardwood and softwood timber product, is now recognised as a registered trademark with the UK Patent Office.



Introduced into the market four years ago, WoodEx® is made from European Ash, European Redwood, European Oak, Sapele and Grandis and the UK's biggest independent timber and panel products distributor is now seeing this versatile timber being specified in more and more joinery projects.

WoodEx® offers numerous features and benefits. It has two high-quality, clear faces for use in joinery applications and is ideally suitable for use in timber doors and

windows as the product offers greater dimensional stability. In addition, Lathams can supply the product either as finger jointed or as one piece.

James Latham's Group Product Sales & Development Manager for WoodEx®, Paul Leach, commented: "Achieving registered trademark status is great news for us, apart from the obvious protection and exclusivity it affords, it not only enhances the WoodEx® brand but also demonstrates the support and long term plans we have for this great product."

"Demand is increasing all the time and our stock now covers a wide range of sizes and species, providing a versatile addition to our already extensive timber range."

WoodEx® is available ex-stock in lengths of 0.8m to 3m, (6.0m in finger jointed faced Redwood) and in sizes ranging from 48mm x 95mm to 72mm x 120mm. Special sizes and lengths are also available to order.

For more information on WoodEx®, and James Latham's extensive range of timber products please phone 0116 257 3415, email marketing@lathams.co.uk or visit www.lathamtimber.co.uk

ENQUIRY 38

Tried And Tested Over 7 Million Times

Invented by Hansgrohe 15 years ago, the universal iBox is a basic unit that allows for fast, reliable and versatile concealed installations. Suited to over 200 Axor and Hansgrohe mixer sets and shower systems fittings, the box can be easily adapted for any type of wall construction and depth, and provides an absolutely watertight and soundproof finish.



The base unit and fixtures can be bought and installed independently of each other, so customers can have extra time if needed to decide on the final design and function for their scheme. And because 'One size fits all' it is no problem to change the function and style of the fitting when the time comes to update the bathroom, many years down the line.

The universal iBox is just one of over 200 products available to view at The Water Studio, London Clerkenwell. Tel: 01372 465655 www.hansgrohe.co.uk

ENQUIRY 39

Pegler Yorkshire – First To Introduce Large Scale Press Fittings Into UK Marketplace

Pegler Yorkshire has extended its stainless steel XPress Press Fit range of fittings to included sizes up to 168mm - a first for the UK market. The two new additions complement the XPress range offering a complete system from 12mm through to 168mm. The XPress stainless steel range is a world class fitting that can now be fitted up to 25 bar, subject to application submittal and prior approval. It boasts a myriad of advantages including; no requirement for threading machinery or grooving which is labour intensive and costly, it also negates the need for a hot works permit as no heat or jointing compounds are needed to complete the joining procedure.



In addition, XPress benefits from a unique Leak Before Press feature which provides instant identification of joints that have been assembled correctly but mistakenly left unpressed. For use on hot and cold water systems, chilled water services and fire protection the new additions to the XPress Stainless Steel range are simply compressed onto 316 or 304 tube using the AC0401 press tool and slings. www.pegleryorkshire.co.uk

ENQUIRY 40



Rinnai: Space Heater Range, Easy To Install, Trouble Free Long Life Warmth – New Additions

Rinnai have added to its range of Energysaver gas fired space heaters which are designed specifically for use in schools, community centres, libraries, conservatories, churches and other large indoor spaces. The range has seen many thousands of installations over the past several years - trouble-free, easy to install and cost effective and efficient operation and performance. The recent additions to the range are the Rinnai Energysaver 559FT and a new streamlined look to the popular Energysaver 309FT. Sporting very sleek casing, the heaters simply blend into the background in line with the need of modern interior aesthetics while offering exceptionally high efficiencies in operation and subsequently reduced running costs. Changes to the Energysaver 559T have been made to the operation board which is now an easy to use touch-control pad sited conveniently and discreetly on top of the appliance. The unit is also supplied with a child lock to eliminate any problem of small hands tampering with the controls. Add to these advantages are the timer function and eco mode combined with the new unit's ability to heat big spaces very fast.

Rinnai's Energysaver range delivers energy-efficient and consistent warm air powered by Natural Gas and LPG options. The units feature fully modulating burners so heat output and energy input is reduced as the space warms up. The Rinnai Energysaver range comprises fanned convection-powered flue models that exceed seasonal thermal heating guidance under Building Regs Part L. In a building with high vaulted ceilings, with conventional convector heaters, the heat will immediately rise to the ceiling. www.rinnaiuk.com

ENQUIRY 41

Wasting Energy Is A Crime At HMP Edinburgh

With an operational capacity of 870, Her Majesty's Prison (HMP) Edinburgh is one of Scotland's largest secure facilities. As part of its operational policy HMP aims to use energy as efficiently as possible and maintain suitable climate conditions, which is why it uses a Building Energy Management System (BEMS) from Trend.



Part of the Scottish Prison Service (SPS), HMP Edinburgh is a large community facing facility that houses offenders predominantly from courts in Edinburgh, the Lothians and Borders. SPS has a defined energy management strategy in place and has worked closely with Trend for almost 20 years. Part of this relationship currently includes the operation of a framework service contract for BEMS maintenance.

Ronnie Macdonald is Energy & Engineering Services Manager at SPS, and states, 'We have comprehensive BEMS installed at all of our main establishments, which over the years had been set up by a number of different system integrators, all with their own ideas about user interface configuration, control strategies and the most appropriate technology. We identified that through greater consistency in relation to technologies, strategies and staff interaction, we could realise significant operational and energy efficiencies. We therefore decided to call Trend in to see what could be done.' Following an initial site visit, Stuart Lonie, Trend's Business Development Manager, suggested that a Trend Controls Survey would be the best way to review how the building was being used and identify opportunities where energy savings could be made.

First things first - Prior to the survey, a set of objectives was agreed upon. These included the identification of hardware and cabling that had reached the end of its service life, as well as devices that had become obsolete or difficult to service. Any viable enhancements to the BEMS that could increase energy efficiency through hardware and software upgrades, in addition to improvements in information display and accessibility, were also identified. The findings also needed to outline a schedule of priced upgrades and replacements. In order to carry out the works, a competitive tender was conducted, which was won by Paisley based Craigalan Controls Limited – a Trend Technology Centre (TTC) with a high level of expertise in specifying, configuring and maintaining BEMS. However, from the outset the process was a team effort, with the SPS managing the project and experts from the Trend team offering technical assistance and advice whenever required.

Taking a view - One of the primary reasons for having a BEMS is to be able to access and use information that is presented, via an easy to understand format. Considered the 'brains' of a BEMS, the Trend 963 Supervisor is a graphical, real-time user interface that makes it possible to monitor specific

activities and make any necessary changes. Trend's Stuart Lonie comments, 'The SPS wanted to ensure that each 963 Supervisor across the SPS estate could adopt the same platform. This meant developing the same graphics, text, colours and measurement values.'

Being able to ascertain exactly how much energy is being used in various parts of the building would offer a significant advantage. To that end all existing sub-meters were brought up to a good working condition and, where necessary, additional devices were installed and configured in a way that enabled information to be supplied to the 963 Supervisor in a consistent format.'

The sub-meters now provide a full energy usage profile every 30 minutes, which when plotted provides a detailed usage pattern over 20 days that shows variations between day, night and weekend consumptions. This data is then assimilated into a daily total, which can also be viewed as part of a 3-year profile showing comparisons between weekdays and weekends and furthermore allows seasonal patterns to be identified and compared. This is a vast improvement on the previous configuration, which simply focused on previous week, month and overall energy demand, all of which failed to give information in a useful format. Once the new control strategy was implemented, the mechanical control power usage could be clearly identified and electrical savings measured.

'As a result of the work carried out directly from the recommendations in the Trend Energy Controls, there has been a significant reduction in electricity use associated with the mechanical control panel on the BEMS related element alone,' says Ronnie. 'The amount of electricity coming through the mechanical control panel to the building prior to the exercise averaged 41 per cent and this figure was cut to 33 per cent afterwards – an eight per cent saving on-site electricity.'



HMP Edinburgh now operates heating & ventilation systems under a demand led strategy, whereby provision of services are based upon the real-time demands of each individual heating, domestic hot water, and ventilation system across all of its buildings. The BEMS controls these systems at part load by default and automatically increases output as and when required, in other words energy is only consumed when actually required. A good example is ventilation rates which are set at 80% of capacity by default, and automatically increase to 100% dependant upon monitoring of CO2 levels in extracted air.

Onwards and upwards - Ronnie Macdonald of SPS believes that the entire exercise has transformed the way energy is used at HMP Edinburgh and the results of the BEMS optimisation programme have exceeded initial expectations. He concludes, 'It was always my belief that we could get far more out of our BEMS. The Trend Controls Survey, however, was the real turning point in enabling us to go back to basics, clearly assess what was possible and identify which activities could provide the best results.' www.trendcontrols.com/en-GB

ENQUIRY 42

The Vent-Axia Pure Air Sets The Benchmark For Indoor Air Quality

Leading British ventilation manufacturer Vent-Axia has set the benchmark for high-level filtration with the launch of the Vent-Axia Pure Air. Designed specifically to answer the needs of the new build residential market, this indoor air quality filtration system has been developed to work in conjunction with Mechanical Ventilation with Heat Recovery (MVHR) units to offer the ideal indoor environment. MVHR not only extracts harmful pollutants but also allows the air coming into the home to be filtered, taking out harmful airborne bacteria and dangerous contaminants. The Vent-Axia Pure Air filter then goes one step further to improve IAQ, working with the MVHR system, it is fitted to the intake airflow and incorporates two types of filtration—activated carbon and G4/F7 particulate filters to achieve even higher levels of filtration. Offering housebuilders a choice of filtration to suit the application, the Vent-Axia Pure Air is available with G4 or F7 particle filters. For further information on all products and services offered by Vent-Axia telephone 0844 856 0590. www.vent-axia.com



ENQUIRY 43

Aico's New Website Delivers Essential Information & Support

Aico Ltd., the market leader in residential Fire and Carbon Monoxide (CO) Alarms in the UK, has launched a new responsive website providing customers with detailed product and alarm technology information along with an extensive selection of support tools and information. www.aico.co.uk has been completely redesigned, with a clean, modern look and intuitive navigation.



The new website is content focussed, delivering information and support in formats required by a wide range of visitors. The home page of the new Aico website provides instant clear links to the most visited pages of the previous website and links to four key areas - Products, Support, Expert Installer and a new Where to Buy feature. The intuitive navigation is also enhanced by the reactive search bar, helping to find all the relevant information needed in the quickest time. www.aico.co.uk

ENQUIRY 44

Rinnai Wall Heaters Are A Blessing For St Mary's

Rinnai, manufacturer of the Energysaver super energy efficient range of gas fired wall heaters, is keeping the congregation of St Mary's Church in Saltcoats, Ayrshire, nice and warm. Ayr-based installer O'Neil Gas Services was asked to specify and install a new heating system to replace St Mary's old ducted warm air set up. O'Neil Gas Services is a family-run company founded by John O'Neil and now presided over by his son, Brian. Amongst its other commercial work, O'Neils recently won the Irvine Housing gas maintenance contract for an initial 5 years and a 5 year Gas maintenance contract for Cunninghame Housing Association.



Ross McWhirter of O'Neil's explains that like most churches St Mary's sees the bulk of use is at weekends with maybe a few mornings in the week, so the important factor was to design a

system that would give instant heat when required, quickly and efficiently and not wasting fuel when not in use.

Energysaver 1004T units run on Natural Gas or LPG and as the units are fully modulating, heat output is reduced as the space temperature rises. The heaters also come with a tiny 80mm flue for a neater finish and the heaters themselves sport safer low temperature casing so there is no danger of burns. Warm air is delivered at floor level for greater comfort and coverage even in large spaces like churches and the units can be time controlled for added economy. The Rinnai 1400T is also suitable for central time control. www.rinnaiuk.com

ENQUIRY 45





Window Security – A Clear Solution

By Martin Oates – Commercial Director with SE Controls

Window security is a key design requirement with all market leading systems tested to the PAS 24 standard to meet the demands of the Secure By Design (SBD) initiative and Building Regulations Approved Document Q (ADQ).

Automated windows that are utilised for ventilation strategies will also need to comply to the standard, which requires the actuators to resist 3000N of negative force when the window is closed. This is becoming commonplace in applications such as school refurbishment where façade automation remains a popular and cost effective solution of providing improved ventilation performance over manually operated windows.

The SECO N 24 25 twin actuator from SE Controls has successfully passed the PAS 24 test and in addition to presenting physical resistance to intruders, it also provides a signal to the controller, should the window fail to close fully, to maintain the integrity of the security system, as requested by the SBD schools standard. Two locking points in one neat enclosure with programmable gasket relief optimise weather performance and security to meet BS 6375 parts 1,2 and 3 in addition to the PAS 24 test.

Bespoke fixing brackets and reinforcement to the window is often required to provide sufficient strength for the fixing, which is usually the weakest point of resistance, as the actuator provides 2 x 4000N of resistance to forced opening. The ability to manufacture bespoke body lengths allows SE Controls to locate the locking points on different size windows exactly as tested, relative to the corners, to maintain consistency of performance and compliance. Test conducted with an actuator located at the centre of a vent will either not pass the test or can only be utilised for different widths. Similar to EN12101-2, the fabrication and installation solution requires a process that is audited by an independent notified body and must be re-tested annually. If you have requirements for SBD or ADQ certified automated windows, please contact the SE Controls team for further information. www.secontrols.com

ENQUIRY 46

Ecodan Cascade Heat Pumps Work In Hybrid Situation With Oil Boiler

Heating a Georgian country house in rural Shropshire was costing a small fortune in oil for the owner but there were also limits on how much improvement could be made to the thermal properties of the Grade II listed property.

Originally built in 1794, Henlle Hall, in Gobowen near Oswestry is the home of Cosmo Lloyd and his family who have developed the grounds of the estate into a unique, award-winning, and relaxing country retreat with a combination of courtyard cottages and woodland lodges.

“The solution was to add three Ecodan 11kW renewable heat pumps to provide the majority of heating throughout the year, with the oil boiler kicking in as a last resort when the weather turns extremely cold”, explains Mr Lloyd.

In addition to the 13 bedrooms, Henlle Hall has six grand rooms on the ground floor including the kitchen, drawing, games, dining room, parlour and the feather room (which has borders painted in game bird feathers).

“It is a fantastic, historic building but it is also leaky and there is not much we can do because of the Grade II Listing”, says Mr Lloyd.

Three PUHZ-HW112VHA(-BS) Ecodan units have been installed discretely outside the rear of the property and these work in a cascade system, which means that the heat pumps work individually or together to respond accurately to the heating requirements of the property.

The demand is also rotated between the units so that the work is shared between all three, maximising efficiency and helping prolong the system’s lifespan. Ecodan’s advanced intelligent controls mean that the heat pumps work in a hybrid situation with the oil boiler, deciding which heating system to use at any time to ensure that the house is heated in the most economical way possible. www.livingenvironmentalsystems.mitsubishielectric.co.uk

ENQUIRY 47





Rievaulx Abbey Sings The Praises Of Its New Morley- IAS Life Safety System

Rievaulx Abbey was built by a group of 12 Cistercian monks in 1131 near the River Rye in a remote valley, deep in what is now the picturesque North York Moors National Park. At its height Rievaulx Abbey was one of the wealthiest monasteries in Great Britain and supported around 140 monks and 500 lay brothers and servants. Such great wealth, and the monastic obedience to Rome, led Henry VIII to dissolve the monasteries and the building was suppressed in 1538 and left to decay. Over the years Rievaulx Abbey's ruins have been an inspiration for poets, painters, and scholars, and was one of the first major ruins to be conserved by the Office of Works in 1917.

As one of the most complete and atmospheric of England's abbey ruins, there has been a year-on-year increase in the number of people taking time to walk around and explore the Rievaulx Abbey site. In order to build on its popularity English Heritage has constructed a dedicated visitor centre that includes a museum displaying previously unseen artefacts including elaborate medieval stone carvings, chess pieces and gold coins. The facility also has a shop and a tearoom, and visitors can pick up an audio tour to learn more or hunt for clues of medieval life on the family trail.

Protecting the nation's historical buildings and monuments, and those visiting them, requires a meticulous approach to life safety. Therefore, when it came to this aspect of the development, English Heritage called upon the services of Shipley based Rosse Systems to specify, install and commission a suitable solution. Dave Thewlis, the company's Sales Director, says, 'As well as having over 34 years of experience and knowledge in the fire detection industry, we have worked closely with English Heritage for a number of years. Likewise, as a longstanding Morley-IAS partner, we know that its innovative technology is reliable, robust and has the ability to minimise unwanted alarms.'

Rosse Systems designed a BS 5389 compliant category L1 solution, which is designed for the protection of life and deploys automatic detectors throughout all areas of the three buildings with the aim of providing the earliest possible warning. This was based around three networked Morley-IAS DX Connexion (DXc) panels from Honeywell.

The single loop DXc1 variant was used and Hugh McQuaid, Business Manager, Honeywell Security and Fire, explains, 'This panel is ideally suited for use in the protection of small to medium sized buildings like those at Rievaulx Abbey. Completely open protocol, it has been developed to be the most time efficient panel on the market to install, and possesses the traditional Morley-IAS qualities of reliability, flexibility and value, with advanced features and intuitive functionality.'

Although beam detection was briefly considered for the installation, it was ultimately decided that single point smoke detection would be the most suitable option. So, complementing the Morley-IAS DXc1 panels System Sensor S200 Advanced optical smoke sensors were selected. The S200A range has a completely unique detection chamber design, which is the result of many years of research and design by System Sensor, and delivers improved responsiveness and reduced sensitivity to changes in environmental conditions. The devices are managed by embedded software running complex algorithms that further improve resilience to unwanted alarms and improve detection speed.

With two integral tri-colour LEDs that provide 360° local visual indication of the device status, the S200A is programmable with static or blinking red, amber and green status indications available. Furthermore, all Series 200 Advanced detectors are environmentally friendly and meet the Restriction of the use of Hazardous Substances (RoHS) and Waste Electrical and Electronic Equipment (WEEE) requirements, therefore helping English Heritage meet its corporate social responsibility (CSR) objectives.

Thanks to the ease of use of the Morley-IAS and System Sensor devices, the installation went smoothly. However, Rosse Systems had to maintain the integrity of the buildings and meet the strict requirements of the architect. Dave Thewlis comments, 'This aspect of the project meant that we had to try and keep the system discreetly sited to maintain the character of the interiors. At times this was much easier said than done, but thanks to our vast experience of carrying out work in all types of buildings, it was a challenge we relished.' <http://www.morley-ias.co.uk/>

ENQUIRY 48

Wrap Up Tight With New DuPont™ Tyvek® StructureGuard™ ... The Membrane For Peace Of Mind, Both During Construction And Long After



Fforest Timber demands the very best from its specified products, expecting them to offer high-performance that will last, while also enabling a smooth construction process. It was with confidence, therefore, that the company agreed to work with DuPont to apply the very latest membrane solution from the Tyvek® system of advanced products for a new build project. Developers WDL Homes Ltd were also happy, once approached, to become early adopters of the advanced StructureGuard™ solution.

The three storey, two block stand-alone development in Aberdare, Wales, replaces a former theatre in the town centre, with dramatic views of its valley setting. One block is 981 square metres and the other 255 square metres, forming an attractive configuration with a pitched slate roof and an elegant facade in painted blockwork and render, with feature stone elements. However, there was an eight week interval between installing the membrane-wrapped timber elements and applying the external skin, so optimum performance was vital – both to protect the timber engineering and to allow various trades to continue work until completion.

DuPont™ Tyvek® StructureGuard™ has all the renowned properties expected of the leading breather membrane, including excellent vapour diffusion, strong yet lightweight durability, plus superior water hold out (above W1 at 1500mm) and robust wind washing resistance. This recently launched and fully BBA certified version has been adapted with larger scale commercial projects in mind, especially those in more exposed situations. It is ideal for

either off-site application (as in this case) or when quick and easy on-site installation is essential.

Tyvek® StructureGuard™ is compatible with all specialised tapes and sealants, creating a cocoon around a structure to both shield its insulation and enhance thermal efficiency and comfort once occupied. When installed and maintained correctly as part of a holistic and systemised approach, this enables a building to perform as designed... and for the long term.

Susan Brewer of Fforest Timber, who worked closely with DuPont technical teams during this first UK installation for Tyvek® StructureGuard™ says, "We are very familiar with the ease and reliability of Tyvek® and have always experienced great service and results, so we were more than happy to go with this new product for our project in Aberdare. As expected the application in the factory went very smoothly and quickly and StructureGuard™ has done precisely what it was intended to do, protect a considerable investment from the elements and allow the construction process to continue as efficiently as possible."

For more information about DuPont™ Tyvek® in the UK please visit: www.construction.tyvek.co.uk or call 01275 337 660 (087 922 2740 in ROI)

ENQUIRY 49



Image supplied by Arup ©



Lindapter Provided Connection Solutions For Arup's Circular Economy Building

The construction industry currently produces three times more waste than all UK households combined, including 60 tonnes of materials that go straight to the tip due to incorrect ordering, damage or not fitting correctly.

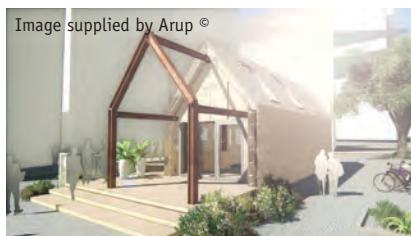


Image supplied by Arup ©

that circularity is achievable.

The prototype challenged both designers and suppliers to think differently about their chosen materials and construction processes in order to create a building where, at the end of its life, all of its elements can be re-used, re-manufactured or re-cycled. True circularity has only been possible with the support of manufacturers such as Lindapter who are committed to testing the principles that underpin the circular economy.

During the project, Arup asked Lindapter to design and supply a connection system to secure the circular building's roof panels, wall panels and glazing supports to the structural frame. Lindapter's technical

team quickly designed bespoke connection solutions using the CE Marked Type B clamp, which allowed contractors to rapidly install the panels by easily sliding and aligning the eco-boards into position before tightening with a standard torque wrench.

As only hand tools are required to install Lindapter products, noise, waste, and tool/welding consumables are avoided. Lindapter clamps allow onsite adjustability and adaptability to suit different beam thicknesses and angle alignment to ensure a guaranteed fit, therefore minimising site waste or returned construction components.

The connection solutions were particularly appropriate for the circular buildings project due to Lindapter's synergy with the principles of the circular economy, for example, Lindapter's products provide flexibility, ease of deconstruction and the potential to reuse or recycle.

Lindapter prides itself on its outstanding green policies and creates social, environmental and economic benefits in steel construction, supporting what BCSA refer to as sustainability's 'triple bottom line'.

Visit www.lindapter.com/About/Environmental_Policy to read more about Lindapter's environmental policies and download its ISO 14001 certificate.

ENQUIRY 50



Matthew Street flats in Swansea
PHOTO CREDIT: ROBERT MELEN

Mapei Construction Products Used For Swansea Housing Refurbishment

Matthew Street flats were originally built in the 1960's as part of a wider housing boom at the time. The two ten-storey blocks of flats, owned and managed by the City and County of Swansea, have recently undergone a large scale refurbishment using Mapei construction products and have subsequently been upgraded to the Welsh Housing Quality Standard (WHQS). As a result, residents will benefit from better quality, more energy efficient housing.



The project included removing asbestos, demolishing redundant risers, replacing kitchens and bathrooms, electrical rewiring, as well as upgrading the insulation level to external walls. Beton Bauen carried out the specialist repairs on behalf of client Interserve Construction.

A number of Mapei products were specified including Mapei's carbon fibre plate Carboplate E 170/100/1.4 which was bonded with Adesilex PG1 adhesive and used to reinforce 500-2000m² of concrete elements damaged by physical and mechanical stresses within the block of flats. Mapei concrete repair mortars Mapegrout T40, Mapegrout T60 and Planitop Smooth and Repair were used in the refurbishment of existing deteriorated concrete.



Mapei's Carboplate E170

The use of Planitop Smooth and Repair eliminated the need to break out concrete, significantly reducing the noise and dust pollution. This allowed all occupants to remain living inside the building whilst the refurbishment was taking place.

For more information on how Mapei products can be used in your project, please call 0121 508 6970 or visit www.mapei.co.uk to view the full product range.

ENQUIRY 51



East End Conversion Contract Consumes 2,000 Marmox Multiboards

The conversion of an eighties' building into 124 high specification apartments in London has included the use of large quantities of Marmox Multiboards, fitted within every new dwelling as part of a build-up containing electric underfloor heating.

The property, located in the capital's vibrant East End, is being refurbished and reconfigured by Quinn (London) Ltd., with the supplies of high performance and very versatile Marmox Multiboard coming through the Northampton branch of Travis Perkins.

In total 2,000 of the 600mm wide by 1250mm long boards, at either 10mm or 12.5mm thick, are being consumed during a contract set to run for 12 months. Quinn's workforce are

overlaying the existing reinforced concrete slabs with the Multiboards before the electrical cabling for the underfloor heating is clipped in place, and a self-smoothing screed pumped across each area. The two board thicknesses facilitate dealing with differences in the substrate as well as the final installation of either tiles or timber laminate floorcoverings, depending on room location.

Marmox Multiboards are manufactured from extruded polystyrene, or XPS and offer a range of positive physical characteristics in addition to being fully waterproof. They are both light to handle and easy to cut, while still being able to carry substantial loadings if employed as part of a flooring build up. They further offer good acoustic as well as thermal insulation performances. Marmox Multiboard is frequently specified as a wet room, water resistant insulation board that can be fixed to walls, floors and ceilings. It can simply be glued in place with a solvent-free adhesive or it can be fixed with a range of specialized washers and dowels. Flexible, curved boards are also available, as well as pipe boxing. www.marmox.co.uk

ENQUIRY 52

A Sound Solution At GEMS Twickenham

GEMS Twickenham Primary Academy is the proud recipient of new cushion flooring from Itec floors, with acoustic and safety products introduced for the perfect combination of design and performance underfoot.

Working with contractors City Axis, over 700m² of flooring was specified for installation throughout the school's key areas. Acoustic flooring, namely Optimise 50 in its Rochas 698 design, was selected for hallway, dining room and classroom spaces, providing the necessary sound-reducing qualities in the face of heavy footfall. Meanwhile, Taxi Black safety flooring was order of the day in the bathrooms and cleaner stores, with slip resistance imperative.

City Axis worked closely with Pippa Hogg-Andrews, Principal at GEMS Twickenham, who explains: "Flooring was a key component in our new design schemes, as we looked to bring our interiors in line with the 21st century and our fresh, innovative way of thinking. We opted for grey and black flooring to match the school's colour scheme, neutral shades that really allow the students and their work to stand out. We also required a flooring that would retain its good looks over time, while being easy to maintain, and we are delighted with the outcome, receiving positive responses from pupils and parents alike".

Itec's flexible product portfolio allowed City Axis to specify both acoustic and safety flooring from a single source, just another benefit that makes Itec the go-to choice for contractors up and down the UK. www.itecfloors.co.uk

ENQUIRY 53





Looking For A Whitewashed Floor?

Bona White is a new wood floor primer designed to produce an on-trend bleached look when used in conjunction with a Bona polyurethane lacquer. The intensity of 'whiteness' is dependent on how many coats are applied. This client wanted a whitewashed look to their original Victorian floor boards to tie in with the soft greys of the kitchen.

This was achieved by the application of two coats of Bona White under two coats of Bona Traffic HD lacquer. The works were part of a complete renovation of a Victorian town house in Bath and were carried out by Bona Certified Contractor, TWF Bath Ltd, who specialise in the restoration and fitting of traditional wood floors. Before treatment, the TWF team filled large gaps using reclaimed pine wedges and then sanded the floor to 100 grit abrasives.

Smaller gaps were filled using Bona Mix & Fill, which is mixed with sanding dust from the floor to ensure the filled areas blend in with the rest of the surface. The floor was then sanded using 120 grit abrasives before the application of the first coat of Bona White. The floor was then abraded using a Bona Scrad Pad to remove any grain raising from the surface before the application of the second coat.

To produce a highly durable, easy to maintain finish, two coats of Bona Traffic HD lacquer were applied. Traffic HD is Bona's toughest lacquer. The very low VOC content and low odour mean there is no need for homeowners to vacate their property while the works are being carried out and there is no lingering smell.

Its fast cure time means the floor can be in full use just 12 hours after treatment – making it an ideal choice for commercial floors too where there is little available downtime for renovation. TWF's clients chose the Matt version of Traffic HD for their kitchen floor. Silk matt and Extramatt sheens are also available.

As a Bona Certified Contractor, TWF Bath is part of Bona's network of highly trained wood floor specialists - independent wood floor companies who have received extra in-depth training in the use of Bona's wood floor finishing products.

www.bona.com

ENQUIRY 54



Define Spaces With Forbo's New Award Winning Marmoleum Linear Collection

Forbo's new Marmoleum Linear sheet collection enables end users and specifiers to define spaces through intriguing floor designs, by playing with texture, colour and installation directions.

Recently presented with the iF Design Award, recognised as a symbol of design excellence around the world, the collection is divided into three



ranges that reflect the latest trends across the office, retail, leisure and hospitality sectors.

Striato Original offers a natural, earthy colour palette of twelve shades that enhance the contemporary linear design that

runs throughout the collection. The Striato Textura range amplifies the linear design further still, with two styles of embossing that create more tactile and captivating aesthetics – complementing the shades of Striato Original.

For those wanting to inject colour into an interior, the Striato Colour range has four vibrant tones and four neutral shades that have a flash of bright colour across them.

Julie Dempster, Marketing Manager at Forbo, commented: "The beauty of the new Marmoleum Linear collection is that individual products can be used on their own to create great effects, or can be mixed and matched with colourways from our other solid and patterned ranges. By playing with installation angles, a design that is as visually impactful as a chevron effect can be produced using a single colourway. Or, to create a quirky, boutique feel, circular, triangular or hexagonal shapes can be cut into the sheet product. Specifiers can also combine the new textures with smooth finishes to add an extra dimension."

Marmoleum is a wholly sustainable floor covering, made up of 97% natural raw materials, 72% rapidly renewable and 43% recycled content. The Topshield2 finish provides an easy to clean surface and helps to reduce maintenance costs.

For more information please call 0844 822 3928, email info.flooring.uk@forbo.com or visit www.forbo-flooring.co.uk/marmoleumlinear

ENQUIRY 55



Spanish Wellness Centre Picks Heronrib Barefoot Matting

Heronrib matting has recently been laid around several pools of the renowned Marisma Wellness Center in Santander, Spain. The matting is a hygienic and slip resistant solution for wet areas manufactured in the UK and US by Plastex. Made from flexible PVC and supplied in 10m rolls, meant that 170m of walkways could easily be laid overnight without causing any sport activity interruptions.

The matting features an embossed surface which is certified Class C, the highest rating of slip resistance given on DIN 51097, as well as ensuring barefoot comfort. The open grid construction with channelled underbars allows for extra drainage, whilst anti-microbial and anti-fungal additives ensure high levels of hygiene are permanently maintained. Heronrib is supplied in 50, 100 and 122cm widths and 10m lengths in 5 standard colours. www.plastexmatting.com/heronrib.html

ENQUIRY 56

Neaco Decking Chosen For Another Landmark Bridge

Neaco's aluminium decking has been specified for another landmark bridge project at Bécon-les-Bruyères train station which forms part of the extensive redevelopment of the Zac des Bruyeres Courbevoie in Paris.

The striking new footbridge is the key feature of first phase of modernisation carried out by contractors, Groupe GCC. It now facilitates access to routes for travelers and allows residents the passage of Asnieres-sur-Seine at Courbevoie. Bécon-les-Bruyères is one of the busiest stations in the suburbs, with more than 20,000 passengers per day, and is set to become a major interchange with upgraded platforms and passenger buildings. The overall development is being led by joint project managers, RFF and SNCF.

Neaco's National Sales Manager, Peter Melia, comments: "Neaco can now boast an outstanding list of high profile bridge projects which have specified our Techdek system for pedestrian and cycle paths. The product is featured on some of the most acclaimed designs in the UK and Ireland, including the Gateshead Millennium Bridge, the Media City Footbridge in Salford Quays, the Twin Sails Bridge in Poole, the Peace Bridge in Londonderry and the Living Bridge in Limerick. We are delighted to add Paserelle Becon-les-Bruyeres to that list."

"Techdek's T-Bar profile provides a 74 per cent contact area on the surface yet drains water efficiently and its swage-locked construction between the bars enables high load bearing capability. The system is durable, maintenance-free and comes with the option of a serrated anti-slip surface for safer footing. This combination of attributes makes Techdek an ideal specification for the high traffic demands of an urban bridge and its versatile modular system can adapt to unusual angles and curvatures, allowing it to meet the creative aspects of designs like Paserelle Becon-les-Bruyeres."

As well as offering bridge-friendly qualities, Techdek has many environmentally friendly attributes: the system is non-toxic, non-combustible, corrosive-free and 100 per cent recyclable with no downgrading of its properties and very little energy required for re-melting. Precision-manufactured off site and easy to assemble with no welding required, Techdek is suitable for many other applications, including staging, modesty screens, solar shading, maintenance galleries and roof access walkways. www.neaco.co.uk

ENQUIRY 57





Pure Delight From Choosing Trespa Pura NFC®

Discovering Trespa's high pressure laminate cladding provided the answer to a design conundrum for a stylish new residence on the outskirts of Aberdeen. Steph Craigie and her husband were looking for something different. So after consulting the local authority planners in the area who wanted the building to be either traditional or more contemporary, rather than a run-of-the-mill suburban design, the couple decided on a contemporary look for their new home.

They choose a Scotframe Val-U-Therm kit as the mode of construction and for the external surface treatment the couple selected K-Rend smooth cement render and Trespa Pura NFC® cladding. "The architect's design called for wood linings and whilst we loved the look we didn't want the maintenance issue, plus my husband dislikes the grey uneven discolouring of cedar linings," says Steph Craigie.

A visit to the Grand Designs exhibition in London introduced them to timber-effect cladding but still they could not identify a product that met their needs. "Many hours were spent searching for something suitable and my husband eventually stumbled across the Trespa® product online," says Steph Craigie. "I called to find the Trespa Pura NFC® product was very new to the UK but we soon had our hands on samples and it was immediately clear to us that this was the product we were looking for."

They chose Aged Ash, one of six colours available in the Trespa Pura NFC® range. "My husband, and also the joiners who did the installation are very picky and so all were delighted with the fixing system that Trespa uses as it ensured that the end result is extremely sharp and precise," explains Steph Craigie, adding: "It is great to think that this finish will remain the same as it is today for many years to come."

The quality of the Trespa Pura NFC® product was clear to everyone that handled it while the home was being built. So much so that a family friend of the Craigies who runs a large timber wholesale business has decided to stock it and one of the joiners involved on the house building project also went on to install it in his own home.

Trespa Pura NFC® is made from up to 70% natural fibres, impregnated with thermosetting resins and a non-porous surface engineered to enhance its weather resistant properties. As with all Trespa® products, Trespa Pura NFC® has been tested extensively against weather, impact and UV resistance. For additional convenience and easy maintenance, dirt, stains and splashes simply wipe off. The result? No rot or decay and no need to paint or stain.



From Slate Ebony through to Classic Oak and White Pine, this versatile new range accentuates the shape and style of both modern and traditional buildings. It is suitable for any exterior façade cladding application, and comes cut to size in easy to handle planks that can be laid horizontally or fixed vertically, either side by side or lap style. Trespa Pura NFC® looks good, performs well, comes pre-packed with a variety of matching components and carries a 10-year Product Guarantee. To request a sample pack, email live@trespa.com

ENQUIRY 58



Fight Back Against Vandalism With ASBO

Vandalism and graffiti is a growing concern within the UK, costing over £1 billion a year to remove. To combat the trend, Everbuild – A Sika Company have launched a new ASBO range, providing both the prevention and cure to the problem.

Within the range is ASBO Anti-Graffiti Coating, a semi-gloss, clear coating designed to protect against costly damage caused by spray paints, marker pens and fly posting. Once applied, the coating prevents paint from bonding, causing it to crack allowing for easy removal using just water and detergent, eliminating the need for any harsh chemicals, whilst posters will fall off on their own after a few days. The coating can be brush or roller applied to concrete, brick, render, masonry and previously painted surfaces.

ASBO Anti-Climb Paint is a non-drying, solvent free paint which remains slippery and greasy making climbing virtually impossible. The thick black paint also marks anyone who touches the surface making the intruder easily identifiable. Finally, ASBO Graffiti Remover is a powerful, non-drip aerosol formula which penetrates deep into the graffiti allowing easy removal of paint, felt tip and biro marks left by vandals. ASBO Graffiti Remover can be used on all surfaces including brick, stone, metals and concrete. For more information on the ASBO range or any other product in the Everbuild or Sika ranges, contact your local sales representative, call the sales office on 0113 240 2424 or visit www.everbuild.co.uk.

ENQUIRY 59

£5m School Sports Facility Receives First Class Protection



Façadeshield UV, which was developed by the A. Proctor Group to maintain the building fabric behind rainscreen cladding, has been successfully installed as part of an impressive new school sports complex at St Aloysius' College in Glasgow. The design included an attractive rainscreen clad finish. Façadeshield UV is the culmination of leading research to produce a nonwoven breathable membrane that combines exceptional water resistance and UV resistance with the aesthetically pleasing dark colour to provide a "shadow" appearance within open rainscreen façades. Façadeshield UV enhances the air tightness of the building, whilst reducing the risk of condensation due to its' high vapour permeability, yet airtight fabric. The product is backed with a CE Mark. www.proctorgroup.com

ENQUIRY 60

Cembrit Launches Windstopper Extreme In A Blaze Of Glory

Cembrit, the leading roofing and cladding specialist, is pleased to announce the UK launch of Windstopper Extreme – a new sheathing board that is ideal for a range of uses on UK construction projects. To coincide with the launch, Cembrit tested the board to BS EN 1634-1:2015 / BS 476:22 at the Building Research Establishment (BRE). Cembrit is delighted to report Windstopper Extreme passed the test achieving a one hour fire rating.

A sheathing board such as Windstopper Extreme is typically installed behind decorative rainscreen cladding to effectively 'seal' the internal environment of a building. It is an excellent alternative to cement particle board and has, following the successful fire test, proven fire resistance.

Building Regulations and other documentation require building structural elements to provide minimum periods of fire resistance, usually expressed in minutes, which are generally based on the occupancy and size of the building. BS EN 1634-1:2015 / BS 476:22 determines the fire resistance of non-loadbearing elements, such as sheathing boards, of a building construction when subjected to certain heating and pressure conditions. www.cembrit.co.uk

ENQUIRY 61



Products From The tremco illbruck Range Ensure Leak-Free Facades



Cambridge Street is a development of 282 residential apartments within two towers, of 29 and 22 storeys, in a prime location in the centre of Manchester. Astley Facades turned to tremco illbruck to provide waterproofing solutions for window and other junctions. Careful detailing around the windows was crucial; tremco illbruck supplied a range of compatible products to create a seal between the high-performance Velfac windows and the sheathing board. illbruck ME501 Duo window membrane HD was bonded to each window with illbruck SP350 Fix & Seal High Tack adhesive prior to the window being installed. The ME501 was then bonded to the sheathing board with SP525 Frame and Façade Sealant & Adhesive. Where there were difficult details, an added application of SP925 Air Seal was used. In addition to the membranes, ME315 Total Protection Tape was supplied to seal joint the sheathing board and provided total compatibility with the illbruck window membrane and adhesive. www.tremco-illbruck.co.uk

ENQUIRY 62



Sika Sarnafil Branches Out With Unique Garden Room Project

In possibly the only building of its kind in the UK, Sika Sarnafil single ply membrane has been used to waterproof a garden room with a live tree growing through it.

Hackney-based architect, Andrew Leckenby, specialises in working with private clients to improve their homes. But when it came to extending his family home, Andrew became his own client. Living in an urban area meant imagination was required to increase his living area. Deciding to make the most of his home's outdoor space, Andrew settled on a garden room. However, the rear of the garden contained a beautiful false acacia tree, which he did not want to remove. Thinking outside the box, Andrew drew up plans for a room that would incorporate the tree, making it the focal point of the space.

Andrew explained: "There are countless examples of trees being integrated with architecture – but these are generally found in countries where it doesn't rain quite as much! To be able to achieve the same effect in the UK, we needed a roofing membrane that was flexible enough to allow the tree to sway and grow, as well as being durable enough to keep the building watertight."

Andrew had specified Sika Sarnafil on many extensive commercial projects during his career working with larger architectural practices, so knew that the product would meet his requirements.

"Faced with a challenging roof design, I instantly thought of Sika Sarnafil. As the industry leading single ply membrane, after decades of specifying it for corporate clients, I was confident that I could trust its quality and durability. In addition, Sarnafil's Registered Contractor scheme allowed me to identify an installer that had the training and experience to do the job – essential for detailing of this nature."

The finished article is a striking, yet homely multi-functional space, used as a garden room that extends the summer season, a home office – and not to mention a unique sleeper location for Andrew's son. A member of the Sika Sarnafil technical team inspected the project once complete and awarded a 15 year guarantee on the roof. The low maintenance membrane means Andrew only has to check the waterproofing once a year to ensure the detailing around the tree is still sound. A small price to pay, says Andrew, for such a fantastic family space.

For more information on Sika Sarnafil's products and services, call 01707 394444, email sarnafilroofing@uk.sika.com or visit <http://gbr.sarnafil.sika.com>.

Visit the Leckenby Architecture website www.leckenbyarchitecture.com for more details on Andrew Leckenby's architectural design and consultancy services.

ENQUIRY 63

Redland's BCP Pitched Roof Training Is Just The Ticket

Roofers lacking formal qualifications can now enjoy CITB-funded training thanks to Redland's accreditation as an approved provider of the Basic Competency Programme (BCP) for pitched roofing. To date, Redland is the only manufacturer approved for the BCP in respect of pitched roofing.

The BCP certificate – when combined with a Working at Heights CSCS Health & Safety Test pass – entitles both apprentices and 'old hands' to apply for the three-year Red 'Experienced Worker' CSCS 'ticket', allowing them to



work on site while looking towards the next level of qualification. The main objective of the BCP is to support roofers without either a full competency or an official roofing qualification in obtaining one; and help them to convert their green CSCS cards to the Blue Skilled Worker CSCS version. Heavily subsidised by Redland and the CITB, the two-day course costs only £150 for both the training and certification. A CITB training grant may also be available to qualifying companies, bringing the total cost of the BCP certificate down to just £50. www.redland.co.uk/bcp

ENQUIRY 64



Unique Klober Underlay For Low Pitch Roofs

On building extensions, existing windows or pipework may limit the pitch and preclude use of the tile or slate on the main roof. This is a particular problem with clay and concrete plain tiles but Klober Permo® extreme RS SK2 now enables profiled tiles to be laid as low as 12.5° and

flat tiles and slates at 15°. It has high tear resistance, a thermoplastic polyurethane (TPU) coating and double self-adhesive strips which provide a permanent seal at laps and immediate weatherproofing protection against wind, rain and snow. Its fleece also has a capillary stop which controls the formation of condensation. www.klober.co.uk

ENQUIRY 65

Fire And Water Resistance See Magply Picked To Play Vital Role For Bath Rugby

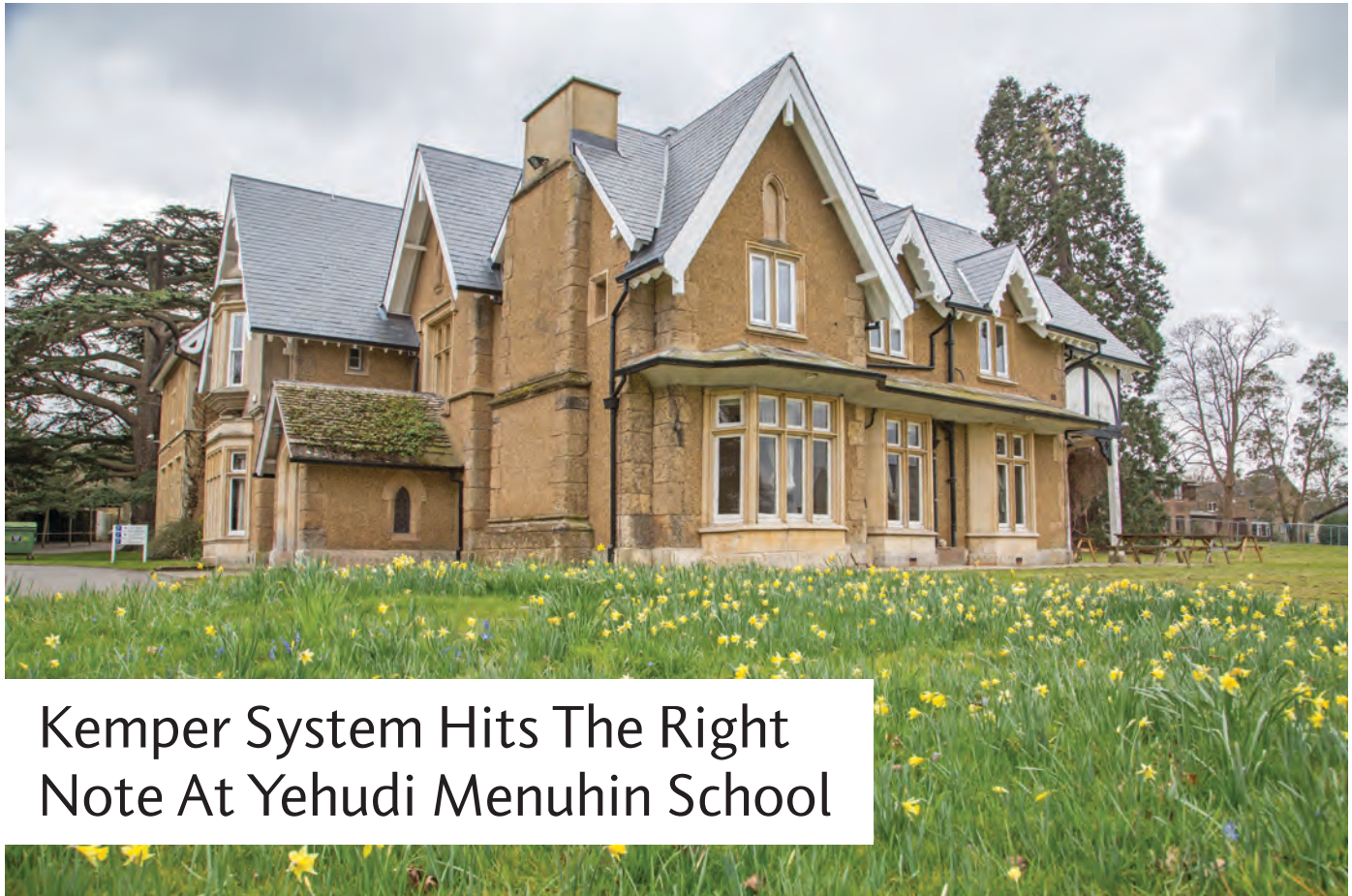
The Recreation Ground in Bath is one of the crucibles of English rugby, famous long before the professional era and still a venue other Premiership and European sides frequently find presents a challenge they cannot meet. It is also a location that posed specific physical and technical questions for the materials used in building the new West Stand, which Magply met in full. The new Gem Stand sponsored by brewery Bath Ales, backs onto the River Avon which is prone to periodic flooding, while the project architects, Arena 1865 also had to take several other design criteria into consideration.

Project Architect, Simon Pugh-Jones outlined the long term ambitions for the ground as a resource to serve the people of Bath rather than just the rugby club, as well as the way Magply aligned with the demands of the most recent building project. He commented: "Our long term objective is to redevelop the ground and a year ago we embarked on a planning process to give certainty over the next four years while the bigger plan is considered and this involved building a new 'temporary' West Stand. This sits on the massive old base of the stand rebuilt after World War Two, with spreader plates to carry the steel frame. Unfortunately, however, the Rec is prone to flooding rapidly to a depth of a metre or more and therefore the building has to be resilient.

Also safety requirements have been increased over the years and the new West Stand gives us better facilities including more toilets, more bars and better access and egress in an emergency." "We looked at a full range of board solutions including high performance gypsum and recycled plastic, but when we got into the science and the costings, it soon became clear the only board which ticked all the boxes was Magply. If there is a flood we will be able to quickly wash it down and repaint it, while it will continue to offer full fire resistance. We didn't need specialist installers and although some of those unfamiliar were sceptical to begin with, they soon found it easy to work with in achieving a neat fit, which also included some fire-boarding applications." www.magply.co.uk



ENQUIRY 66



Kemper System Hits The Right Note At Yehudi Menuhin School

Cold-applied liquid waterproofing specialist, Kemper System, has provided the warm roof system for a new 'practice house' at Yehudi Menuhin School in Surrey as part of a green roof build up.



Named after the celebrated violin virtuoso that founded it, Yehudi Menuhin School is a world famous school for students of classical music based in a former mansion in picturesque semi-rural grounds. The new practice house is a 600m², single storey development designed by Brighton-based architectural practice, Miller Bourne, providing 11 acoustically-controlled practice studios, along with a teaching area, library, offices and a landscaped entrance for outdoor performances.

The contemporary building has been designed to complement its natural surroundings with a green roof planted to reflect the flora and fauna of the local area and roof lights to maximise natural light. Kemper System's Stratex warm roof system has been installed beneath the green roof medium, ensuring excellent thermal performance, waterproofing protection and root resistance.

Roofing contractor, Imperial Contracting Limited, installed the warm roof on behalf of main contractor, Sunninghill Construction, applying a primer

to the plywood substrate before laying a Kempershield cold-applied, self-adhesive vapour control layer (VCL). The installation team then fitted the standard 150mm Kempertherm insulation board, cutting various boards to size on site to fit the exact dimensions of the roof, including the apertures for the roof lights, and fixing it to the substrate using Kemperfix adhesive.

With the insulation in place and fully bonded to the substrate, Imperial Contracting Limited used Kemper System's D Primer to prepare the surface before applying Kemperol V210 cold-applied liquid membrane in a single wet-on-wet process comprising resin, 200g flexible reinforcement fleece and more resin.

Imperial Contracting then installed the green roof elements, which had been agreed early in the design process.

Comments Aleksandrs Zigalovs at Miller Bourne: "We had used the same combination of Kempertherm insulation and Kemperol cold-applied liquid membrane on other projects so we were confident it was the right approach for this scheme and the Kemper System team worked with us to develop the optimum technical specification for the roof.

"With certified roof resistance and a BBA accredited 25-year guarantee, the warm roof build up will ensure the building remains a valuable asset to the school and its students for a generation to come."

www.kempersystem.co.uk

ENQUIRY 67



Bauder Delivers First Class Roofing Solution For British Airways

British Airways i360 is the world’s tallest moving observation tower and first vertical cable car. At the entrance of the attraction on Brighton Seafront is an accessible roof terrace area that features over 1,500m² of Bauder’s reinforced, inverted hot melt waterproofing system with hard landscaping.

The futuristic British Airways i360 is a 531 foot tall structure located at the landward end of Brighton’s historic former West Pier. Eleven years in the making, British Airways i360 is the brainchild of architect-entrepreneurs David Marks and Julia Barfield of Marks Barfield Architects, best known as the practice that conceived and designed the world-famous London Eye. Groups of up to 200 visitors will glide gently upwards to a height of 138 metres in a futuristic, fully enclosed, hand-crafted glass viewing pod to admire 360-degree views across Regency Brighton and Hove, the South Downs, the English Channel and the south coast east to Beachy Head.

Passengers board each flight via the alluring outside terrace deck, which features reconstructed tollbooths of the original iconic West Pier that now serve as a ticket office and café, where people can relax and socialise. Understandably this roof top area will experience significant amounts of foot traffic all throughout the year, so the client wanted to install a waterproofing system that was both robust and of the highest quality. Given

these requirements, Bauder’s hot melt structural waterproofing system with hard landscaping was a natural choice. The system is designed to last the lifespan of the building and provides a monolithic, fully bonded membrane that is self-healing to minor punctures and ideal for use on protected roof areas. As part of the system approved contractor Accurate Roofing also installed inverted insulation, to deliver high thermal performance in exposed conditions and help retain heat within the beachfront building below that houses a brasserie, café and gift shop.

This new landmark is an exceptional example of how modern architecture and roof landscaping can revive a historical monument, which is expertly and intricately intertwined with over 150 years of history. British Airways i360 has already attracted significant interest and proven extremely popular, welcoming its 100,000th visitor just three weeks after it was opened to the general public in August 2016. The attraction was given a Royal opening by His Royal Highness the Duke of Edinburgh in October.

www.bauder.co.uk

ENQUIRY 68

Glass Box Rooflights Installed In High Spec Residential Development

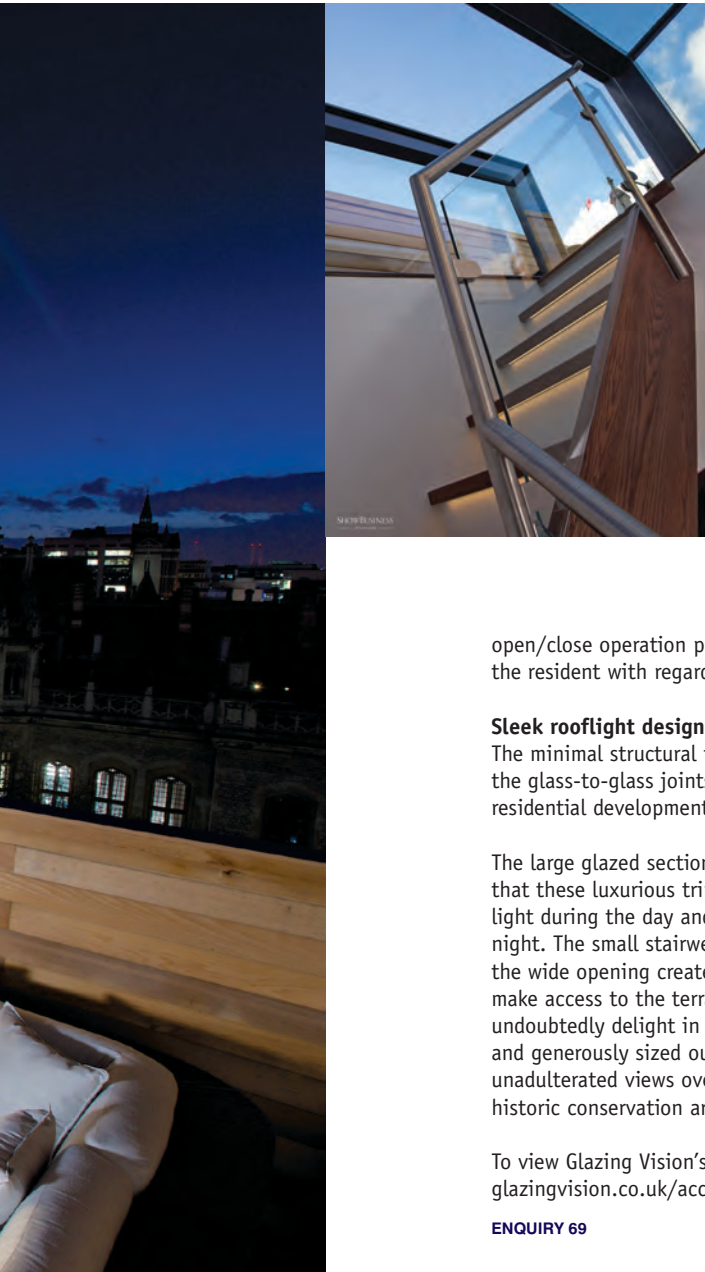
Glazing Vision's one wall box rooflights were incorporated in Taylor Wimpey's prestigious, high specification residential development at St Dunstan's House, Fetter Lane in the City of London. The scheme provides 76 luxury private apartments, a residents' lounge and library, landscaped courtyard in a historic setting, complete with basement parking and concierge facilities.



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Taylor Wimpey enlisted the specialist services of HLM Architects to address a number of unique challenges to the development of this site, previously the location of the original St Dunstan's House, which was demolished in 1976. The site is located close to Grade 1 Listed Buildings and is in the Chancery Lane Conservation area, thus necessitating a very sensitive approach to the development. The design language had to respect the characterful architecture of the adjacent Grade 1 Listed Kings College Library, whilst at the same time incorporating a sense of the contemporary.

In addition Taylor Wimpey was seeking to deliver the optimum sales value per square foot of this development in the increasingly competitive London property market and to maximize the amenities for the residents and investors alike. HLM's specialist Development Team, in close collaboration with Kings College's own working group, revised a previously acquired planning consent to significantly improve the efficiency of the site, and also positively enhance the surrounding environs. By adding re-configured and generously sized triplexes at roof level, HLM Architects were able to deliver that all-important roof top space, so highly prized and keenly coveted by homeowners and investors alike, and which comes at a premium in the City of London.



Box rooflights provide access to the spacious outdoor terraces

Key to unlocking this vital roof top space, whilst simultaneously respecting the roofline in this conservation area, was HLM's specification of Glazing Vision's innovative box rooflights. Essentially a free-standing "glass box" these roof lights provided both technical as well as aesthetic benefits for the architects. In addition to four standard freestanding box rooflights, Glazing Vision were able to precision-engineer two bespoke sized one-wall box rooflights to meet the unique requirements of the re-worked layout. For the contractor these box roof lights, pre-assembled in-house, offered easy installation as they were delivered to site as finished boxes. The physical structure and the specification of the glazing negated the need for additional balustrading, thereby facilitating the full use of the terraced area.

A critical consideration for HLM architects, in specifying the Glazing Vision box rooflights, was to optimize the headroom whilst complying with building regulations. The resident, at the simple push of a button, can climb the stairs whilst the rooflight is retracting into its open position, without needing to "bow" his head, and can walk straight out onto the terrace. The secure manual override, and the low profile infra-red proximity sensors to detect movement during the

open/close operation provide the fundamental safety features. An access keypad provided an additional benefit to the resident with regards to comfort and security.

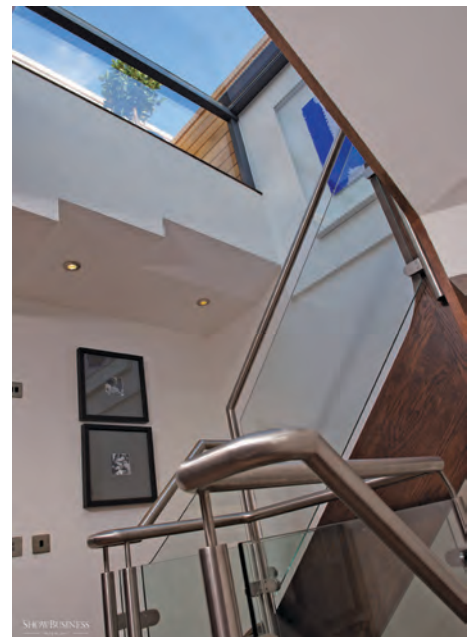
Sleek rooflight design, maximal light

The minimal structural framework, powder-coated in grey to harmonise with the elegant interior décor, and the glass-to-glass joints of the box rooflights reflected the clean, contemporary aesthetics at the heart of this residential development, whilst successfully providing the desired seamless integration of the exterior and interior.

The large glazed sections of the box rooflights ensured that these luxurious triplexes are flooded with natural light during the day and crowned with the stars at night. The small stairwell up to the box rooflight, and the wide opening created by the retractable section make access to the terrace very easy. The resident will undoubtedly delight in the use of this highly valuable and generously sized outdoor space, whilst enjoying unadulterated views over the famous landmarks in this historic conservation area.

To view Glazing Vision's new box rooflight range, visit glazingvision.co.uk/access

ENQUIRY 69





Reynaers SL 38 Proves Versatile Choice For Renovations

The former Van der Elst cigar factory in Leuven has undergone a metamorphosis into an urban oasis. Where the roar of machinery and the aroma of tobacco used to dominate, Jaspers-Eyers Architects has now created a mix of residential units, offices and shops around a series of green outdoor areas.

The '7Even Gardens' build makes use of slim line, steel-look aluminium windows from Reynaers, turning an old factory into a pleasant living environment.

The factory complex dates from 1875 and has been expanded many times over the years. A number of buildings have been demolished in order to create space for the gardens. These gardens are constructed around the three renovated buildings and a new-build block. Architect John Eyers made sure that both the business premises and apartments, ranging in size from 50 to 200 square metres, have strikingly high ceilings and an abundance of daylight entering the properties.

From an urban development perspective, Eyers was looking for a new dynamism while still trying to preserve the original character of the building. "We have left the existing column structure and the technical features as visible as possible with the intention of reinforcing the industrial look rather than eliminating it. After all, this is what distinguishes the building from new-build projects, and the reason why people specifically choose this spot."

The slim line steel-look window product from Reynaers imitates the look of the original window frames. Slim Line 38 is one of the latest additions to Reynaers product range and an advancement of Reynaers' original CS 38 window system, which is featured on 7Even Gardens. SL 38 has exactly the same aesthetic but benefits from even better performance. It boasts the look and feel of steel, supported by the superior qualities of aluminium.

Rebecca Cope, Marketing Manager at Reynaers, said: "With its highly desirable slender appearance and market-leading energy efficiency, the SL 38 has proved itself to be a truly versatile system. A perfect all-rounder, it is ideal for new builds and renovation projects alike, allowing the preservation of a vintage look or the creation of a fresh and modern build."

A highly insulated system of inward and outward opening windows and doors, SL 38 combines lightweight elegance and comfort with a unique design. Combined with its stability and ease of production, this system offers an ideal solution for both new-build constructions and the renovation of steel-framed windows and doors. Whilst the original design is respected, a vast improvement on thermal insulation is achieved.

SL 38 is available in three unique design variants – Classic, Cubic and Ferro – with its slim lines allowing an abundance of light and large glass panes. This also makes the system ideal for steel replacement, providing a weightless frame whilst retaining its strength and enhancing its performance.

A special modification to the design also means the system is available with hidden hinges, whilst the use of glazing bars will achieve a more traditional design. The minimalistic frame is reinforced by an invisible drainage system, avoiding the use of drainage caps on the exterior of windows and doors. The windows and doors can be provided with double and triple glazing with a glass thickness of up to 55mm without losing the ultra-slim look. In combination with its superior insulation capabilities, the system provides the perfect harmony between durable material, clean design and demanding architectural challenges.

SL 38 features a highly insulated three-chamber system with ultra-slim profiles for increased thermal characteristics. The solution is available in fixed, turn, and turn-tilt variations with U_w values of 1.4 W/m²K or greater depending on the configuration.

For optimum end user comfort, the SL 38 product offers excellent weather performance with air tightness of Class 4 (600Pa) and water tightness Class 9A (600Pa). This strong performance also extends to safety, with a burglar resistance class of 2 and fire resistance class EW 30. www.reynaers.co.uk

ENQUIRY 70

For further information please contact **0116 257 3415** or visit **www.lathamtimber.co.uk**



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ENQUIRY 71

Redland Courts Success With Cambrian Slate

When the team at Forster Roofing first realised that the Crown Office and Procurator Fiscal Service's building in Glasgow was the



ideal showcase for its integrated roofing and solar service, they also realised that Redland's lightweight Cambrian Slates were perfect for the project. Steve Scott, Managing Director of Forster Roofing

Services, says "Redland's Cambrian Slate fitted the remit perfectly, providing a very secure covering whilst enhancing the slate appearance of the roof. The Cambrian's sleek finish aligned perfectly with the integrated solar PV on the roof." The company also installed a total of 96 270Wp panels across the two most suitable roof slopes. Now, the clean, self-generated solar energy is providing power to the offices and helping to reduce the carbon footprint of the building.

www.redland.co.uk/cambrian

ENQUIRY 72

Colourful Panels Add The Finishing Touches To New South Yorkshire School

Sheffield-based architectural panel manufacturer Panel Systems has played its part in ensuring that pupils at the new Goldthorpe Primary School receive an inspiring and enlightening educational journey, thanks to the colourful Trespa panels it fabricated and supplied. Panel Systems supplied 80m² of Trespa panels in six

bright colours: Passion Red, Red Orange, Zinc Yellow, Lime Green, Poplar Blur and Royal Blue to create a unique rainbow design. The panels were 3mm thick and Panel Systems bonded them to a Styrofoam core, providing



a high level of insulation for the building, enhancing its energy efficiency and meeting the architect's specification for thermal performance. Trespa panels are ideal for school building applications as they have a scratch and impact resistant surface that is extremely robust and has been manufactured to withstand harsh exterior elements such as UV light and wind driven rain. Trespa architectural panels are available in a wide choice of standard colours including wood and metal effects and they can also be manufactured in custom-made colours for bespoke projects. www.panelsystems.co.uk

ENQUIRY 73



Laminates Create A Colourful Campus

Abet Laminati's MEG exterior grade laminate has been used to colourful effect at a new Academy in Birmingham which specialises in preparing students for careers in Health & Social Care, Enterprise and Creative Technology. Designed by international design practice Scott Brownrigg, with the exterior supplied by SIG Building Systems, the new purpose built premises spans several buildings all clad in grey and orange laminate from Abet Laminati's exterior grade high pressure laminate collection.

MEG is a perfect choice for this kind of high demand environment where durability meets design. Carrying a BBA Agrément Certificate, MEG is a self-supporting high pressure laminate (HPL) for cladding the exterior of buildings, balconies and other applications. It features

high resistance to temperature, climate shock, weathering, UV light and impact. Furthermore, its chemical resistant nature and closed structure do not allow paint in spray cans, various inks, emulsion paints, lipstick or pastel paints to penetrate into the decorative layer negating the need for any anti-graffiti treatment and making the surface easy to clean.

The range is available in over 91 colours in a mix of traditional plain colours, wood finishes and simulated-concrete colours Metal. MEG is also able to incorporate Abet's digital printing technology. This means that almost any design, photograph or pattern can be reproduced in stunning detail to give architects and designers unparalleled freedom to create unusual and dramatic building facades.

Samples and technical literature are available from Abet Ltd's sample line on www.abetuk.com

ENQUIRY 74



Getting On Top At The Crick

The Francis Crick Institute in central London is a world-leading centre of biomedical research and innovation. It's research groups are now beginning to move into a new state-of-the-art building, featuring an extraordinary roof screening solution from Levolux. This striking new building, designed to achieve a BREEAM 'excellent' rating by architects from HOK with PLP Architecture, is one of Europe's largest biomedical research centres. Once complete, it will accommodate some 1500 staff including 1250 scientists. The building is equipped with a vast array of specialist, highly sensitive plant and equipment, much of it located at roof level.



To satisfy planning requirements, it was necessary to limit the visual impact of the building, particularly at high level. Levolux worked collaboratively with the project design team to develop a custom roof screening solution, to satisfy unique and challenging project-specific requirements. The resulting solution is impressive in scale; extending 160 metres

in length and 80 metres in width, and reaching up to more than 43 metres above street level. The enormous roof screening structure resembles a modern vaulted roof, divided into two interlocking shells. Each shell is formed from a variety of screening fins, or louvres, that combine to create an attractive, yet multifunctional enclosure.

Solid, perforated and twisted aluminium fins all feature, along with glass fins. In total, Levolux designed, fabricated, supplied and installed almost 2400 screening fins. The fins vary in size, with widths ranging from 150mm up to 750mm and lengths of up to 9 metres. Each fin is engineered with custom brackets to facilitate the smooth operation of lifting and securing them into place. The roof screening solution is not simply a decorative

feature. It provides shading and a naturally ventilated enclosure to allow mechanical and electrical plant and equipment to operate efficiently. It also incorporates one of the largest building integrated photovoltaic (BIPV) installations in the UK.

Over 800 custom-built solar panels have been incorporated into more than 420 of the Glass Fins, fixed to south-facing sections of the roof. The laminated Glass PV Fins are formed from toughened glass, sandwiching a PVB interlayer and mono-crystalline PV Cells. In addition to the Glass PV Fins, Levolux also supplied and installed the associated micro inverters, isolator boxes and two central distribution boxes, mounted within a PV Plant Room. The complete PV array, which is connected to the Building Grid, the BMS and EMS, is expected to generate around 204,200 kWh/year from a renewable energy source. This helps to satisfy the energy demands of the Institute, while significantly reducing its environmental footprint.

Beneath the myriad of Fins that cloak the building's roof, Levolux's Ventilation Louvres were also specified to create protective enclosures around key items of plant and equipment. HP75 and HP50 louvre systems were used, both featuring louvres with a patented 'S' shaped profile. The two systems are distinguished by the pitch of louvres, being 75mm and 50mm respectively. The extruded aluminium louvres provide the optimum levels of airflow and weather resistance demanded by sensitive items of roof based plant and equipment.

All facing surfaces of the aluminium fins feature an attractive, natural anodised finish, while associated aluminium components have been given a highly durable, light grey powder coating. The high performance ventilation louvres used on the project also benefit from a powder coating, but in a contrasting dark grey colour. By leveraging cutting-edge technology, including its multi-functional roof screening solution from Levolux, the institute is ideally equipped to carry out ground-breaking research. It is hoped that it will promote the development of new treatments for illnesses such as cancer, heart disease, stroke, neurodegenerative conditions and infectious diseases. www.levolux.com

ENQUIRY 75

Yeoman Rainguard GRP Downpipes Weather the Elements at Scarborough's New RNLI Lifeboat Station

A new building was required to house Scarborough RNLI's (Royal National Lifeboat Institution's) new arrival – a Shannon class all-weather lifeboat, which



is larger than Scarborough's outgoing Mersey class lifeboat. The charity's new purpose built lifeboat house at Scarborough not only boasts a modern and practical interior with upgraded volunteer crew facilities, an up to date drying room along with a modernised shop and exhibition facilities for visitors, but also a robust, low maintenance, weather resistant exterior. Having to use building materials which can stand up to the coastal elements, Yeoman Rainguard GRP downpipes were chosen to complete a hardy rainwater system with their 100mm diameter GRP downpipes in Black being installed to the exterior of the new building. Though lightweight, making the downpipes easier to handle when fixing on site, GRP is a durable material which can deliver many years of maintenance free service.



The through coloured GRP downpipes are not susceptible to erosion from sea salt or indeed to colour bleaching from the Sun's ultra violet rays ensuring that the Station will remain looking as good as new for many years to come. For information and news about the RNLI, please visit: www.RNLI.org.uk www.rainguard.co.uk

ENQUIRY 76

VMZINC® Roof On Award Winning Greenwich Social Housing Project



Having identified an acute need for affordable, single storey dwellings for people over 60 Greenwich Council was granted funding to construct 35 new dwellings on eight small sites across the borough. The homes, designed by Bell Phillips Architects, feature prominent use of brick and zinc and have standing seam, monopitch VMZINC® PLUS roofs in PIGMENTO® RED.

The distinctive zinc-clad elevation rises 1.5 metres above the brickwork to create a saw tooth profile and an extensive glazing span which enhances natural light and space. The project has so far won RIBA National and London Awards and been commended in the 2016 Blueprint and Sunday Times British Homes Awards. www.vmezinc.co.uk

ENQUIRY 77

History In The Heart Of Whitehall Protected With The Help Of Selectaglaze

Banqueting House stands at the centre of Whitehall with Buckingham Palace and Westminster Abbey just a short walk away. Inigo Jones designed the present Banqueting House in 1619-22 after its predecessor was devastated by fire.

The security window installations were part of the initial phase of works to restore this stunning Grade I Listed building. Security was an important concern during planning, as was reducing the noise from outside.

Royal Warrant Holder, Selectaglaze, was asked to provide a suitable solution that offered protection to the large windows, but was also a discreet adaptation.

Installing the units provided an interesting task as half the openings were at upper gallery level 10m above the main floor. The gallery could not be loaded. Working very closely with Gardner & Theobald, structural engineers Hockley & Dawson and Royal Warrant holding scaffolders Allen and Foxworthy, a careful method of installation was devised involving a columnar scaffolding design complete with lifting apparatus to each opening. In all, 39 units were installed.

As well as offering blast protection and noise insulation in excess of 45dB, the secondary glazing also provides essential UV filtering to the Thomson Specification approved by the National Gallery, V&A and others.

Secondary glazing is fitted to the room side of a building and is a completely independent and fully reversible adaptation, widely accepted by most heritage bodies. Selectaglaze is the specialist in the design, manufacture and installation of secondary glazing. With fifty years' experience, it has worked on all building types. For further information, literature and test results, please contact Selectaglaze on 01727 837271/e-mail: enquiries@selectaglaze.co.uk or visit: www.selectaglaze.co.uk

ENQUIRY 78





Bauder Delivers Largest Solar Array In Higher Education Sector

The University of the West of England (UWE) in Bristol has recently quadrupled its solar generating capacity through the installation of 1,731 solar panels, which will enable it to produce over 400 MWh of electricity each year and making it the largest solar panel array in the UK university sector.

The new solar array has been installed on the roof of the University Enterprise Zone (UEZ) and the Bristol Robotics Laboratory, which have both undergone extensive refurbishment as part of the required works. Prior to the solar panels being installed, approved contractor Mitie Tilley Roofing overlaid the original failing single ply waterproofing with over 12,000m² of Bauder's lightweight, robust PVC single ply waterproofing system Thermofol. The solar modules, which weigh just 12Kg/m², were then fitted onto the waterproofing using a unique penetration-free, welding method by renewable energy specialists Dulas. This installation technique means that the roof is not compromised by penetrations for fixings nor is it ballasted, which would add additional weight loading to the roof.

The new photovoltaic system will generate at least 74.32 Megawatt Hours of solar power each year which should; cover half of the energy consumed within the building, save around 200 tonnes of carbon and provide annual savings of over £50,000 a year. The university is highly committed to sustainability and energy efficiency, and this solar project is just part of a much wider plan to achieve its carbon reduction goals and enhance local renewable energy capacity.



Fabia Jeddere-Fisher, Energy Engineer at UWE, stated, "From its conception, we chose a roofing system that would mean the flat roof would not need to be strengthened if we chose to add solar panels. Normally, panels placed on flat roofs require either weighing down or fixings that penetrate the roof membrane, which can introduce the risk of leaks. The system we have chosen means that the panels are welded into place, reducing load, and reducing the need for roof penetrations. The University will use 100% of the power generated by the PV array, which will be equal to the amount generated by nearly 200 homes with solar panels. As a large organisation we want to set an example for others to undertake similar projects." www.bauder.co.uk

ENQUIRY 79



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